ERM NC, Inc.
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March 30, 2015

Matthew Aufman
NCDENR - Division of Waste Management
217 West Jones Street
Raleigh, North Carolina 27603

Subject: **Remedial Investigation Report**
Engineered Controls International, LLC (ECI)
100 Rego Drive
Elon, Alamance County, North Carolina
Docket No. 13-SF-367
NONCD0002904

Dear Mr. Aufman: ***Via Electronic Transmittal***

On behalf of ECI, ERM NC, Inc. (ERM) is transmitting this *Remedial Investigation Report* for the referenced ECI facility located in Elon, North Carolina. If you have questions or comments regarding this report, please contact ERM at 704-541-8345.

Sincerely,

Edward Hollifield, P.G.
Project Manager

Thomas Wilson, P.G., RSM
Principal

cc: Jimmy McCandies - ECI

Attachments:
Remedial Investigation Report - March 2015

REMEDIAL INVESTIGATION COMPLETION CERTIFICATION
15A NCAC 13C.0306(b)(5)(B)

Media (check all that apply): ☐ All Media ☑ Soil ☑ Ground water ☐ Surface water ☐ Sediment

REC is in compliance with both 15A NCAC 13C .0305(b)(2) and .0305(b)(3): [check] ☐

Site Name	Engineered Controls International -Elon	Street Address	100 Rego Drive
County	Alamance		Elon,
Site ID No.	NONCD0002904		North Carolina, 27244

The remedial investigation, which is the subject of this certification has, to the best of my knowledge, been completed in compliance with the Inactive Hazardous Sites Response Act N.C.G.S. 130A-310, et seq. and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information.

Thomas M Wilson	3/27/2015
RSM Signature	Date
Thomas M. Wilson, P.G. RSM	
RSM Name	
ERM NC, Inc.	1527 Brixham Hill Avenue, Suite 120
REC Name	Mailing Address
0055	Charlotte, NC 28277
REC No.	City, State, ZIP

NOTARIZATION

North Carolina (Enter State)

Mecklenburg **COUNTY**

I, Debra C Pressley, a Notary Public of said County and State, do hereby certify that Thomas M Wilson did personally appear and sign before me this day, produced proper identification in the form of NCDL, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 27 day of March, 2015.

Debra C Pressley
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 10/27/2017

DEBRA C PRESSLEY
Notary Public
North Carolina
Union County

Work Phase Completion Form No. WPC – II
(Revised 12/13)

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 2 OF 2
IHSB SITE NAME Engineered Controls International - Elon
DATE & NAME OF DOCUMENT Remedial Investigation Report
TYPE OF SUBMITTAL (circle all that apply) Report, Work plan, Work Phase Comp. Statement, Schedule Change

REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

Tom Wilson, P.G. RSM
Name of Registered Site Manager

Thomas M Wilson
Signature of Registered Site Manager

3-27-2015
Date

REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act N.C.G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Tom Wilson, P.G. RSM
Name of Registered Site Manager

Thomas M Wilson
Signature of Registered Site Manager

3-27-2015
Date

NOTARIZATION

North Carolina (Enter State)
Mecklenburg **COUNTY**

I, Debra C Pressley a Notary Public of said County and State, do hereby certify that Thomas M Wilson did personally appear and sign before me this day, produced proper identification in the form of NCDL, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 27 day of March, 2015.

Debra C Pressley
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 10/27/2017

DEBRA C PRESSLEY
Notary Public
North Carolina
Union County

Document Certification Form No. DC - II
(Revised 8/11)

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 1 OF 2

IHSB SITE NAME Engineered Controls International - Elon

DATE & NAME OF DOCUMENT March 27, 2015 - Remedial Investigation Report

TYPE OF SUBMITTAL (circle all that apply) Report, Work plan, Work Phase Comp. Statement, Schedule Change

REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Mr. Jimmy McCandies
Name of Remediating Party

Jimmy McCandies
Signature of Remediating Party

03/25/15
Date

NOTARIZATION

North Carolina (Enter State)

Guilford COUNTY

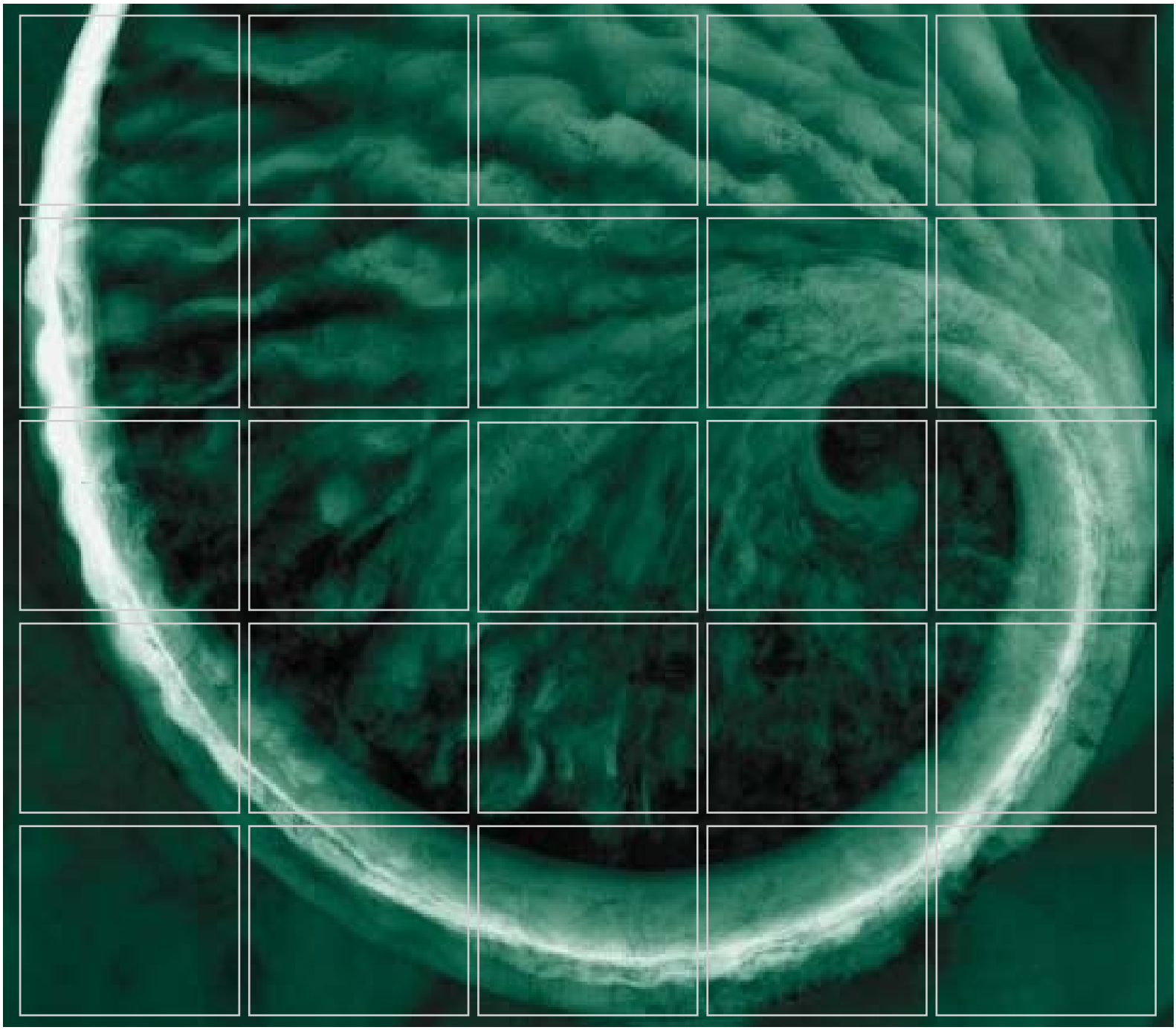
I, C. Marie, a Notary Public of said County and State, do hereby certify that Jimmy McCandies did personally appear and sign before me this day, produced proper identification in the form of NC Driverlicense, was duly sworn or affirmed, and declared that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 25th day of March, 2015.

C. Marie Burns
Notary Public (signature)

(OFFICIAL SEAL)
C. MARIE BURNS
NOTARY PUBLIC
ALAMANCE COUNTY, NC
MY COMMISSION EXPIRES ON 6-19-18

My commission expires: 6-19-18



Engineered Controls International, LLC

Remedial Investigation Report
March 2015

Engineered Controls International, LLC
Elon Facility
100 Rego Drive, Elon, Alamance County, North Carolina
Site ID: NONCD0002904

Delivering sustainable solutions in a more competitive world

ERM

Engineered Controls International, LLC

Remedial Investigation Report

Engineered Controls International, LLC

Elon Facility
100 Rego Drive, Elon, Alamance County, North Carolina
Site ID: NONCD0002904

March 30, 2015

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Engineered Controls International, LLC

Remedial Investigation Report

Engineered Controls International, LLC
Elon Facility
100 Rego Drive, Elon, Alamance County, North Carolina
Site ID: NONCD0002904

March 30, 2015

Project No. 0235398

Edward B. Holliffield, Jr.
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Thomas M. Wilson, PG, RSM
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ACRONYMS

AA	Administrative Agreement
Accutest	Accutest Laboratories of Orlando, Florida
AOC	Area of Concern
BG	Background
COCs	contaminants of concern
DPT	direct push technology
ECI	Engineered Controls International, LLC
EPA	U.S. Environmental Protection Agency
ERM	ERM NC, Inc.
ft bls	feet below land surface
HA	Hand Auger
HSA	hollow-stem auger
HSL	Hazardous Substance List
HSL	Hazardous Substance List Metals
IDW	Investigation derived waste
IHSB	Inactive Hazardous Sites Branch
NCDENR	North Carolina Department of Environment and Natural Resources
OSHA	Occupational Safety and Health Administration
PCE	tetrachloroethene
PELs	Permissible Exposure Limits
PID	photoionization detector
PVC	polyvinyl chloride
PWR	partially weathered rock
REC	Registered Environmental Consultant
REC Guidance	NCDENR REC Program Implementation Guidance, updated December 2013
RI	Remedial Investigation
SADECCO	South Atlantic Environmental Drilling and Construction
Shealy	Shealy Environmental Services, Inc. of West Columbia, South Carolina
SVOCs	semi-volatile organic compounds
TCE	trichloroethene
TOC	total organic carbon
VI	vapor intrusion
VOCs	volatile organic compounds

1.0 INTRODUCTION

ERM NC, Inc. (ERM) has prepared this Remedial Investigation (RI) Report on behalf of Engineered Controls International, LLC (ECI). This document has been prepared in accordance with the Administrative Agreement (AA) for a voluntary Registered Environmental Consultant (REC) directed assessment and remedial action between the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management Superfund Section and ECI (the Remediator), Docket Number 13-SF-367 executed on July 23, 2013 and subsequently amended on January 30, 2014.

This RI Report presents the results of the environmental sampling activities performed at the ECI facility located at 100 Rego Drive in Elon, Alamance County, North Carolina (hereafter called the "Site" or "subject property"). RI investigation activities were conducted in accordance with the Remedial Investigation Work Plan (*ERM, April 2014*), which was designed to identify and characterize the nature and extent of releases of hazardous substances at the site. Additional assessment activities were conducted under the *Remedial Investigation Workplan Addendum* (ERM, September 23, 2014).

This RI Report has been prepared to meet the specific requirements of the NCDENR REC Program Implementation Guidance, updated December 2013 (hereafter "REC Guidance"), the requirements for RI Reports contained in the North Carolina Administrative Code (NCAC) Title 15A 13C .0306(h), and the referenced AA. Investigation activities comply with the U.S. Environmental Protection Agency (EPA) Region 4 Field Branches Quality System and Technical Procedures. The purpose of the RI report is to present the results from implementation of the *Remedial Investigation Work Plan* (*ERM, April 2014*), and referenced September 2014 workplan addendum.

2.0 BACKGROUND INFORMATION

2.1 SITE DESCRIPTION

The Site is located at 100 Rego Drive in Elon, Alamance County, North Carolina, 27244. A Site location map depicting topography within a one-mile radius of the Site is presented as Figure 1. The approximate coordinates of the Site are: latitude 36.10118° N; longitude 79.5185° W. A property layout map of the Site is provided as Figure 2. A previously conducted property survey and a supplemental survey completed after the recent RI activities are provided in Appendix A. The Site is surrounded by a mix of commercial/industrial and residential properties as shown on Figure 3.

2.2 CURRENT USES OF VICINITY GROUNDWATER

The Site and nearby properties obtain potable water through Elon Water Department, which purchases water from the City of Burlington. The City of Burlington obtains its drinking water from three surface water bodies:

- Lake Mackintosh located approximately 3.8 miles south of the Site;
- Stoney Creek Reservoir located approximately 6.4 miles northeast of the Site, and
- Lake Cammack located approximately 7.8 miles northeast of the Site.

During the May 2014 environmental assessment activities, ERM conducted a water supply well survey for wells located within ½-miles of the subject property. A visual survey of the area was augmented by interviews with residential and business owners/occupants and Town of Elon representatives, Google aerial and street level maps, and information from publicly available environmental databases.

Results of the survey indicate the subject area is served by the Elon Water Department; however, a total of 18 water supply wells (active and inactive) were identified within ½ miles of the subject property. Water supply wells identified during the survey are shown on Figure 4. The nearest well location (mapped well no. 1 on Figure 4) is approximately 100 feet north and downgradient of the Site, at a residence located at 606 West Haggard Avenue. Based observations made during the survey, this well is not currently equipped with a pump and is therefore inactive. Another inactive well (mapped well no. 3) is located approximately 100 feet north from the northeast property corner of the Site at a residence located at 516 West Haggard Avenue. The nearest active water supply well (mapped well no. 2) is located approximately 300 feet northwest and

sidegradient from the northwest property corner of the Site at a commercial business at 802 West Haggard Avenue.

2.3 *PREVIOUS INVESTIGATIONS*

Soil and Groundwater

Previous investigations at the Site were conducted by MACTEC in 2009 and GaiaTech from 2010-2013. A detailed summary of previous environmental activities was provided in the *Remedial Investigation Work Plan* (*ERM, April 2014*). Copies of previous reports referenced herein are on file with Inactive Hazardous Sites Branch (IHSB) of the NCDENR in Raleigh, North Carolina. Summaries of historical analytical results for soil and groundwater from the previous investigations are included in the analytical data tables presented in Section 6.0 (Summary of Findings) along with the analytical results of the current assessment activities and noted accordingly. The locations of the historical monitor wells and soil borings are included on Figure 5.

Based on a review of historical Site operations, hazardous substance use, waste management information and the results of previous site assessment activities, potential contaminants of concern (COCs) for the Elon site are volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and select Hazardous Substance List (HSL) metals. Impact from these main classes of contaminants has the potential to affect soil, groundwater and indoor air at the Site. Surface water and sediment are not present on the Site and are therefore not considered under this RI.

Vapor Intrusion Evaluation

As part of initial assessment activities, a vapor intrusion (VI) assessment was conducted at the Site between November 2012 and March 2013 that included sub-slab screening of soil vapor concentrations with results indicating a potential VI condition may be present in indoor air at the facility. The initial soil gas screening was followed by two rounds of indoor air sampling. Results of the initial indoor sampling results indicated various VOCs, including trichloroethene (TCE), were detected between the collective cancer risk screening values of 1.0E-06 and 1.0E-04 and within a Hazard Index of 1. Results of a second VI sampling indicated TCE was detected above the collective cancer risk screening value of 1.0E-04 or above the Hazard Index of 1 at select locations.

In February 2014, ERM conducted a material use survey and determined that TCE and possibly PCE-containing products are actively in use in small quantities (<5 gallons) at the Site. The wide variability between results of the two indoor air sampling events is likely associated with occasional use of tetrachloroethene (PCE) and TCE-containing solvent products. Based on the current use of PCE and TCE in

the facility operations, the governing indoor air quality concentration thresholds for workers are the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs). The 2013 indoor air sample concentrations were below applicable PELs. Thus, no additional VI assessment activities were conducted as part of the RI.

2.4 *POTENTIAL AREAS OF CONCERN*

Based on a review of the Site operations history and the results of previous environmental investigations, the following six AOCs were identified at the Site that warranted additional remedial investigation for the potential release of hazardous substances to soil and groundwater:

- AOC 1: Former Vapor Degreaser;
- AOC 2: Bright Dip Line;
- AOC 3: Former Zinc Plating Line;
- AOC 4: Former Solvent-Based Painting/Storage;
- AOC 5: Abandoned Drum and Debris Piles in Wooded Area; and
- AOC 6: Hazardous Waste Storage Area

The six AOCs are shown on Figure 6, and a summary of the additional assessment requirements and activities for the REC program that were addressed during the current investigation is shown in the following table and discussed in detail in Sections 3.1 and 3.2.

AOC Status Prior to Remedial Investigation

AOC	*Description*	*Analytical Parameters*	*Required RI Sampling Completion Status*	
			Soil	*Groundwater*
1	***Former Vapor Degreaser***	VOCs	Complete	**Incomplete**
	Process used 1980-1990s for parts cleaning	SVOCs	Complete	Complete[1]
		Metals	**Incomplete[2,3]**	**Incomplete[3]**
2	***Bright Dip Line***	VOCs	Complete	Complete
	Process to brighten metal finishes	SVOCs	Complete	Complete
		Metals	**Incomplete[2,3]**	**Incomplete[3]**
3	***Former Zinc Plating Line***	VOCs	Complete	Complete
	Process discontinued in 2000	SVOCs	Complete	Complete
		Metals	**Incomplete[2,3]**	**Incomplete[3]**
4	***Former Solvent-Based Painting/Storage***	VOCs	**Incomplete**	Complete
	Historical solvent-based paint use discontinued in 1997	SVOCs	**Incomplete**	Complete
		Metals	**Incomplete**	**Incomplete[3]**

AOC	Description	Analytical Parameters	Required RI Sampling Completion Status	
			Soil	Groundwater
5	***Abandoned Drum and Debris Piles in Wooded Area*** Abandoned empty drum and debris piles containing construction materials in wooded area	VOCs	Complete	Complete
		SVOCs	Complete	Complete
		Metals	**Incomplete[3]**	**Incomplete[3]**
6	***Hazardous Waste Storage Area*** Outdoor covered area for storage of hazardous waste	VOCs	Complete	Complete
		SVOCs	Complete	Complete
		Metals	**Incomplete[2]**	Complete

[1]Phthalates detected in initial samples but not confirmatory samples
[2]Detected metals are likely naturally occurring; completion status pending additional sampling
[3]Metals sampling did not include full list of HSL metals, supplemental sampling for select HSL metals will complete evaluation.
Vapor intrusion assessment also completed for facility building
N/A = Not Applicable – Media not Present
SVOCs = Semi-volatile organic compounds
VOCs = Volatile organic compounds
Metals = Hazardous substance list metals

Remediation Activities

To date, soil and groundwater remediation activities have not been conducted at the Elon facility.

3.0 REMEDIAL INVESTIGATION ACTIVITIES

RI activities were conducted in accordance with the *Remedial Investigation Work Plan* (ERM-April 2014) and *RI Workplan Addendum* (ERM- September 2014). Soil and groundwater screening was initially conducted using direct push technology (DPT) in May 2014. Permanent on-site monitor well installation was initiated in late May and completed in October 2014 with off-site well installation being conducted in January 2015. Groundwater sampling activities were conducted as RI activities progressed following monitor well installation. Sampling events were conducted in May, June and October 2014 with supplemental sampling following off-site well installation in January and February 2015. Photographs of the site and RI activities are provided in Appendix B.

DPT and permanent groundwater monitor well installations were completed by North Carolina licensed South Atlantic Environmental Drilling and Construction (SAEDACCO) of Clover, South Carolina. Laboratory analytical services were provided by Accutest Laboratories of Orlando, Florida (Accutest) and Shealy Environmental Services, Inc. (Shealy) of West Columbia, South Carolina. A summary of the completed RI activities is presented in the table below and summarized in the following sections.

Summary of Assessment Activities

Location	*Activity*	*Activity Summary*	*Sample Media*		*Sample Analyte Groups*
			Soil	*GW*	
AOC 1 - Former Vapor Degreaser	VOC Delineation, SPLP Analysis, & Metals Evaluation	▪ 4 DPT soil borings with 2 samples/boring to refine delineation of VOC-impacted soil near GP-14 ▪ Collocated SPLP samples for Site-specific soil remedial goal evaluation and 2 samples for select HSL metals to complete the metals evaluation. ▪ 5 temporary saprolite GW monitor wells to refine delineation of source area VOC-affected GW and resample GP-2 for select HSL metals. ▪ 6 additional permanent monitoring wells installed to delineate VOC impact in the saprolite, shallow, intermediate and lower bedrock aquifer zones.	X	X	VOCs Select HSL metals
AOC 2 – Bright Dip Line	Metals Evaluation	▪ 1 DPT boring/1 soil sample for select HSL metals. ▪ Resampled GP-2 for select HSL metals.	X	X	Select HSL metals
AOC 3 – Former Zinc Plating Line	Metals Evaluation	▪ 1 DPT boring/2 soil samples for select HSL metals analysis. ▪ Resample GP-2 for select HSL metals.	X	X	Select HSL metals
AOC 4 - Former Solvent-Based Paint Storage	VOC, SVOC, & Metals Evaluation	▪ 1 DPT boring/2 soil samples for VOCs, HSL metals, and SVOCs analysis. ▪ Resampled MW-5 and MW-10 for select HSL metals.	X	X	VOCs, SVOCs, and HSL metals

Location	Activity	Activity Summary	Sample Media Soil	Sample Media GW	Sample Analyte Groups
AOC 5 – Drum and Debris Piles	Metals Evaluation	▪ 1 hand auger boring/1 soil sample for select HSL metals. ▪ Resampled MW-1 for select HSL metals.	X	X	Select HSL metals
AOC 6 – Hazardous Waste Storage Area	None	▪ Historical HSL metals analytical results for soils were evaluated with respect to new data on background metals concentrations in soil (see below).	-	-	N/A
Site Wide	Background HSL Metals Soil Sampling	▪ 5 DPT soil borings/10 soil samples for HSL metals analysis to evaluate background metals concentrations.	X		HSL metals
Site Wide	Comprehensive Groundwater Sampling Event	▪ Gauged water levels and collected GW samples from 22 monitor wells.		X	VOCs
Site Wide	Aquifer Testing	▪ Performed slug tests at 6 wells and analyzed data to estimate aquifer parameters and GW velocity.	N/A		
0.5 mile radius of Site	Sensitive Receptor Survey	▪ Performed walk around well survey and requested well information from public and private sources.	N/A		

AOC = Area of Concern
VOCs = Volatile Organic Compounds
GW= Groundwater
N/A = Not Applicable
SPLP = Synthetic Precipitation Leaching Procedure
SVOCs = Semi-Volatile Organic Compounds
HSL metals = Hazardous Substance List Metals (Select HSL metals for the ECI site include: antimony, beryllium, copper, manganese, nickel, thallium and zinc

3.1 SOIL ASSESSMENT ACTIVITIES

Soil assessment activities consisted of installing a total of 13 soil borings at the Site, including one hand auger (HA) boring, five background (BG) soil borings, and seven soil borings installed in the referenced AOCs. With the exception of the one hand auger boring, the soil borings were completed using a DPT drill rig. The borings were advanced into the saprolite to depths ranging from 1 to 35 feet below land surface (ft bls). Each soil boring was logged during advancement and selected intervals were screened with a photoionization detector (PID) by a field geologist. Boring logs are provided in Appendix C and Figure 7 shows current and historical soil sample locations.

3.1.1 Background Soil Sampling

Five soil borings, BG-1 through BG-5, were installed in the wooded area on the east portion of the site to sample for and establish background concentrations of HSL metals. Each background soil boring was completed to a depth of approximately 15 ft bls. Samples were collected at approximate depths of 5 and 15 ft bls and analyzed for HSL metals by EPA Methods 6010B/7471.

3.1.2 AOC 1 - Former Vapor Degreaser

Soil borings GP-40, GP-42, GP-43, and GP-44 were advanced to a depth of 35 ft bls to assess AOC 1 and supplement existing previously collected data. Two

samples were collected from each soil boring and analyzed for VOCs by EPA Method 8260B and for leachable VOCs by the Synthetic Precipitation Leaching Procedure (EPA Method 1312). Two soil samples from soil boring GP-41 were analyzed to assess select HSL metals concentrations on the south side of AOC 1.

3.1.3 AOC 2 – Bright Dip Line

Soil boring GP-49 was advanced to a depth of 35 ft bls to assess HSL concentrations of metals near the northwest corner of AOC 3. Soil samples were collected from the 5-7 ft bls and 28-30 ft bls intervals for analysis of select HSL metals. The sample collected from the 28-30 ft bls interval was retained pending the results of the 5-7 ft bls interval sample and was not subsequently analyzed.

3.1.4 AOC 3 – Former Zinc Plating Line

Soil boring GP-41 was advanced to assess metals concentrations on the east side of AOC 3. Soil samples were collected from the 5-7 ft bls and 23-25 ft bls intervals for analysis of select HSL metals. The sample collected from the 23-25 ft bls interval was held pending the results of the 5-7 ft bls interval sample and was not subsequently analyzed.

3.1.5 AOC 4 - Former Solvent-Based Paint Storage

Soil boring GP-39 was advanced to a depth of 11 ft bls in the approximate center of AOC 4. Soil samples were collected from the 2-3 ft bls and the 10-11 ft bls intervals. The sample collected from the 2-3 ft bls interval was analyzed for VOCs, SVOCs and select HSL metals. The sample collected from the 10-11 ft bls interval was analyzed for VOCs and SVOCs plus TICs.

3.1.6 AOC 5 – Drum and Debris Piles

Using a stainless steel hand auger, one shallow soil sample was collected from 0-1 ft bls at HA 4, in the location of a former 55 gallon drum and analyzed for select HSL metals.

3.2 GROUNDWATER ASSESSMENT ACTIVITIES

Groundwater assessment activities consisted of installing five temporary and six permanent monitor wells, conducting a site-wide and supplemental groundwater monitoring events and conducting six slug tests to evaluate site specific hydrogeologic characteristics. Details of the groundwater assessment activities are provided below.

3.2.1 *Temporary Well Installation and Sampling*

To delineate the extent of VOC-affected groundwater in AOCs 1, 2 and 3, five temporary wells were installed in the saprolite aquifer zone. The temporary well locations (GP-45 through GP-50) are shown on Figure 8. Boring logs and temporary well construction records are included in Appendix C. The temporary monitor wells were installed to depths ranging from 39 to 48 ft bls in the shallow saprolite aquifer zone. To facilitate collection of a groundwater sample in each location, a PVC riser pipe with a 5 or 10 foot long section of 0.010-inch machine slotted schedule 40 PVC well screen was placed in the borehole. Following collection of groundwater samples, each temporary monitor well was abandoned by removing the well pipe and screen and plugging the borehole with bentonite pellets and capping with concrete.

3.2.2 *Monitor Well Installation*

Four upper-bedrock Type III monitor wells, DW-3, DW-4, DW-5 and DW-6, were installed to determine the extent of the VOC-affected groundwater and to better define the groundwater flow pattern in the upper bedrock aquifer zone. Monitor well DW-3 was installed in the wooded area in the northeast portion of the site, near saprolite monitor well MW-16. Monitor well DW-4 was installed north-northeast and hydraulically downgradient of AOCs 1, 2 and 3 and bedrock monitor wells DW-1 and DW-2. Monitor well DW-5 was installed upgradient, and paired with saprolite monitor well MW-4 in the southwest portion of the site. Monitor wells DW-6 and DW-6D were installed off-site to the north-northeast and hydraulically downgradient of DW-4 to delineate the horizontal extent of VOC impact to groundwater in the upper and intermediate-bedrock aquifer zones, respectively.

One lower-bedrock Type III monitor well (DW-2D) was installed to define the vertical extent of VOC impact to groundwater at the Site. Monitor well locations are shown on Figure 8. Boring logs, well construction and completion records are included in Appendix C.

Bedrock monitor well installation was accomplished by first using hollow-stem auger (HSA) drilling methods in saprolite and partially weathered rock (PWR) until auger refusal was encountered. Once bedrock was encountered, air rotary drilling methods were then used to advance the borehole through bedrock to the total depth. A nominal 6-inch diameter schedule 40 polyvinyl chloride (PVC) surface casing was installed and grouted with cement at each bedrock well location to isolate the saprolite aquifer zone from the upper and/or lower bedrock aquifer zone. The grout was then allowed to cure for a minimum of 24 hours before the boring was completed to depth to allow installation of the Type III wells in accordance the North Carolina well installation rules.

The total depths and screened intervals for the RI monitor wells are summarized below.

Monitor Well Details

Well ID	*Aquifer Zone*	*Outer Casing Depth (ft bls)*	*Total Depth (ft bls)*	*Screened Interval*
DW-2D	Lower-Bedrock	150	227	217 – 227
DW-3	Upper-Bedrock	59	80	70 – 80
DW-4	Upper-Bedrock	60	85	74 – 84
DW-5	Upper-Bedrock	68	83	73 – 83
DW-6	Upper-Bedrock	60	85	75 – 85
DW-6D	Intermediate-Bedrock	100	140	120 – 140

Each well was installed with 10 to 20 feet of 2-inch diameter, 0.010-inch machine slotted schedule 40 PVC well screen. Monitor wells DW-2D, DW-4, DW-5, DW-6 and DW-6D were completed at land surface with a flush-mount bolt-down well vault. Monitor well DW-3 was completed with an aboveground surface completion. Each monitor well was tagged and labeled with the appropriate well designation, date of installation and total depth. Construction details for all Site monitor wells are summarized in Table 1.

Well development procedures were not initiated until approximately 24 hours following completion of monitor well installation. Each newly installed monitor well was appropriately developed utilizing procedures outlined in the EPA's Field Branches Quality System and Technical Procedures

3.2.3 Groundwater Monitoring

ERM conducted a site-wide groundwater monitoring event to augment existing data, assess groundwater quality concentration trends over time and evaluate VOC plume stability. In May 2014, depth to water levels were gauged and groundwater samples were collected from 17 saprolite aquifer zone monitor wells (GP-2 and MW-1 through MW-16) and 5 bedrock aquifer zone wells (DW-1 through DW-5). Supplemental groundwater sampling events were conducted on June 12, 2014 in monitor wells DW-2 through DW-4; on October 16, 2014 in monitor wells DW-2D and DW-4; on January 29, 2015 in monitor wells DW-6 and DW-6D and on February 12, 2015 in monitor wells DW-2D, DW-6 and DW-6D.

Groundwater samples were analyzed for VOCs including 1, 4-dioxane by EPA Method 8260B. Groundwater samples from monitor wells MW-1, MW-5, MW-10 and GP-2 were also analyzed for select HSL metals including antimony, beryllium, copper, manganese, nickel, thallium and zinc by EPA Method 6010B/7471. In addition, natural attenuation parameters including total iron, total manganese, nitrate, nitrite, sulfate, sulfide, and total organic carbon (TOC)

were analyzed for bedrock monitor wells DW-1, DW-3, DW-4, and DW-5, and saprolite monitor wells GP-2, MW-1, MW-3, MW-4, MW-7, MW-8, MW-9, MW-10 and MW-16.

3.2.4 *Slug Testing*

To evaluate Site aquifer parameters, slug tests were conducted in six permanent saprolite aquifer zone wells MW-1, MW-4, and MW-7, and bedrock aquifer zone wells DW-2, DW-3 and DW-5. Slug test are conducted by displacing a volume of water in the well and then measuring recovery to static water level over time. Using resultant data, hydraulic conductivities were calculated for each well using the following equation developed by Bower and Rice:

$$K = \frac{r_{o^2} ln(Re/r_w)}{2L_e} \times \frac{1 ln(h_0/h)}{t}$$

Where:

K is hydraulic conductivity [L/T]
ro is the radius of the well casing [L]
r_o is the radius of the well casing [L]
r_w is the radius of the well (including sand pack) [L]
R_e is the radial distance over which head is dissipated [L]
L_e is the length of the screen [L]
t is the time since h = h_o [T]
h_o is the drawdown at time t = 0 [L]
h is the drawdown at time t = t[L]

Results of the aquifer characterization are discussed in Section 4.2 and summarized in Table 2. Supporting slug test analysis is provided in Appendix D.

3.3 *INVESTIGATION DERIVED WASTE*

Investigation derived waste (IDW) including soil cuttings, purge and development water from the initial RI activities was drummed, labeled and temporarily stored on-site to await disposal pending receipt of analytical results and waste characterization. Composite soil and water IDW samples were collected and submitted to Accutest Laboratories for analysis. The results of IDW composite samples were used to create a waste profile prior to off-site transport and disposal of the IDW.

On October 16, 2014, the IDW was transported and disposed as non-hazardous waste by A&D Environmental Services, Inc. of Archdale, NC under bill of lading manifest number 25569. A copy of the manifest is included in Appendix E.

IDW generated during the January 2015 off-site monitor well installation is currently stored on site awaiting disposition. It is expected this material will be disposed as non-hazardous waste by mid-March 2015.

4.0 HYDROGEOLOGY

4.1 REGIONAL HYDROGEOLOGY

The Site is located within the Piedmont Physiographic Province of North Carolina, underlain by metamorphic and igneous rocks of varying age subdivided into geologic belts. Based on the North Carolina Geologic map, bedrock at the Site consists primarily of metamorphosed diorite. Bedrock was encountered at approximately 60 ft bls during previous environmental assessments. Saprolite, a layer of weathered and variably decomposed bedrock, was observed above bedrock at the Site and generally mantles bedrock in this region. Saprolite has the appearance of compact clayey to sandy soil, often with original bedrock textures and features preserved.

The occurrence and movement of groundwater in the Piedmont province is generally within two separate, but interconnected, water bearing zones. A shallow water-bearing zone occurs within the saprolite/PWR zone, and a deeper underlying bedrock zone.

Groundwater flow in the saprolite aquifer zone is typically governed by water table conditions and will flow under unconfined conditions and generally mimic topography. Therefore, groundwater originates in upland areas (recharge zones) and flows toward nearby streams (discharge zones).

Secondary joints, fractures, and faults within the crystalline bedrock control the occurrence and movement of groundwater in the deeper water-bearing zone. Groundwater within the bedrock zone may be under confined or unconfined conditions.

4.2 SITE HYDROGEOLOGY

The locations of site groundwater monitoring wells are shown on Figure 8. Construction details and water level measurement for the 24 permanent wells are presented in Table 1. The depth to groundwater at the site in January 2015 ranged from approximately 19 ft bls at monitor well DW-3 located in the wooded area on the east side of the site to approximately 62 ft bls at DW-2 in the central portion of the property. Bedrock was encountered at depths of 54 to 66 ft bls in monitor well boreholes.

Based on the groundwater elevation data collected in January 2015 and as shown on Figure 9, the groundwater flow in the shallow (saprolite) aquifer is generally to the northeast. Groundwater flow for the upper bedrock aquifer zone is to the north-northwest as shown on Figure 10.

Using top of casing elevations and depth to water measurements, site groundwater elevations and hydraulic gradients for the Site were calculated as summarized below.

Hydraulic Gradients – January 2015

Vertical Gradients		
Well Pair	*Gradient*	*Direction*
MW-1 DW-4	0.2909	Down
MW-4 DW-5	-0.0022	Up
MW-7 DW-1	0.0188	Down
MW-9 DW-2	0.3476	Down
MW-16 DW-3	-0.0099	Up
DW-6 DW-6D	0.1406	Down

Horizontal Gradient		
Aquifer	*Well Pair*	*Gradient*
Saprolite	MW-4 MW-7	0.0491
	MW-7 MW-16	0.0041
Upper Bedrock	DW-5 DW-1	0.0441
	DW-1 DW-3	0.0014

The hydraulic conductivity of the shallow aquifer was calculated by the Bower and Rice method using slug test data collected from saprolite monitor wells MW-1, MW-4 and MW-7, and upper bedrock monitor wells DW-3 and DW-5 and DW-2 for deeper bedrock. Site hydraulic conductivity in the range of the calculated geometric mean for the saprolite aquifer zone is typical of a silt or silty fine sand aquifer matrix (Sanders, 1998). A summary of hydraulic conductivities is provided in the table below.

Summary of Calculated Hydraulic Conductivities by Aquifer Zone

Hydraulic Conductivities	*Feet / day*	*cm/sec*
Shallow Aquifer (geometric mean)	0.116	4.08×10^{-5}
Upper Bedrock (geometric mean)	0.782	2.76×10^{-4}
Deeper Bedrock	0.011	3.84×10^{-6}

cm/sec = centimeters per second

Based on the January 2105 water level gauging and calculated hydraulic conductivities, the average groundwater seepage velocity in the saprolite aquifer zone using a porosity of 35% is approximately 3.0 feet per year. Using a primary porosity of 25% average groundwater seepage velocity of the upper bedrock is approximately 24 feet per year. A summary of hydraulic measurements are provided on Table 2 and slug test data and calculations are provided in Appendix D.

5.0 REMEDIAL INVESTIGATION RESULTS

5.1 SOIL ASSESSMENT RESULTS

A current and historical soil analytical results summary is presented in Table 3, and soil sample locations are shown on Figure 7. Laboratory analytical reports are included in Appendix E.

5.1.1 Background Metals in Soil

The analyses of the background soil samples have determined that site-specific natural background metals concentrations at the Site are greater than IHSB Preliminary Soil Remediation Goals (PSRGs) for the HSL metals antimony, arsenic, manganese and selenium. Under the IHSB Guidance, remediation of soils to below site-specific natural background metals concentrations is not required. Therefore, the soil remediation goals for antimony, arsenic, manganese and selenium are adjusted to the site-specific natural background concentrations, as follows:

Antimony
Site Specific Protection of Groundwater PSRG = 1.3 mg/kg

Arsenic
Site Specific Health-Based PSRG – Unrestricted and Industrial Uses= 3.5 mg/kg

Manganese
Site Specific Health-Based PSRG – Unrestricted Use = 1,260 mg/kg
Site Specific Protection of Groundwater PSRG = 1,260 mg/kg

Selenium
Site Specific Protection of Groundwater PSRG = 2.9 mg/kg

5.1.2 AOC 1 – Former Vapor Degreaser

The results of previous soil assessments had practically delineated the extent of VOC-affected soils at the Former Vapor Degreaser area. Eight soil samples collected in 2014 were analyzed to refine the delineation of VOC-affected soils and to assess for selected HSL metals.

The concentrations of the select HSL metals (antimony, beryllium, copper, manganese, nickel, thallium and zinc) detected in the sample and duplicate sample collected from soil boring GP-41 at a depth of 5-7 ft bls were below the respective PSRGs or within the range of background concentrations detected at the site.

TCE and cis-1,2-DCE were detected at a concentration exceeding one of their respective PSRGs. TCE was the most commonly detected compound, with detectable concentrations in all nine samples collected from AOC 1 soil borings. TCE concentrations ranged from 9.8 µg/kg to 8,290 µg/kg and exceeded the generic protection of groundwater PSRG standard of 18 µg/kg in 7 of the 9 samples. The unrestricted/residential PSRG for TCE of 880 µg/kg was exceeded in the sample collected at GP-42 at 20-22 ft bls with a TCE concentration of 8,290 µg/kg.

Cis-1,2-DCE was detected in the 8-10 ft bls soil sample in soil boring GP-43 at a concentration of 428 µg/kg and exceeding its respective protection of groundwater PSRG of 360 µg/kg. No other VOCs were detected in AOC 1 at concentrations above PSRGs.

Synthetic Precipitation Leaching Procedure

To develop site specific protection of groundwater soil remediation goals, the SPLP analysis was conducted on eight soil samples collected from the most impacted area of the site (AOC 1). VOCs detected in the SPLP analysis include cis-1, 2-DCE, methylene chloride, PCE and TCE. SPLP laboratory results are summarized on Table 4.

TCE was detected in two of the eight soil samples analyzed via SPLP with the highest reported leachable concentrations of 1.2 and 1.7 µg/l. A linear correlation analysis of the SPLP data was conducted to estimate a site-specific protection of groundwater soil remedial goal. Based on the results of the SPLP analysis and applying a minimum dilution and attenuation factor (DAF) of 20, a site-specific soil remedial goal for protection of groundwater of 6.6 mg/kg TCE is developed. There were an insufficient number of detections to allow calculation of site-specific remedial goals for the other VOCs.

Of the VOCs detected in AOC 1, TCE is the predominant site COC and the main driver for future remediation activities. Based on the results of the 2014 and previous soil assessments, an isoconcentration map showing the lateral extent of TCE impact in unsaturated soil is included as Figure 11. Based on historical and current soil analytical results, the TCE–impacted soils have been delineated as required to the unrestricted/residential PSRG of 880 µg/kg. The extent of TCE-impacted soils that exceed the site-specific protection of groundwater PSRG of 6,600 µg/kg (6.6 mg/kg) is also defined.

5.1.3 AOC 2 – Bright Dip Line

One soil sample was collected and analyzed for select HSL metals in AOC 2 (GP-49). Concentrations of manganese and other metals were detected; however, metals concentrations were not above the respective protection of groundwater

PSRG. The results of the soil assessment at AOC 2 indicate that metals are within the range of background concentrations and are therefore not indicative of a release of hazardous substances. No further soil assessment is necessary for AOC 2.

5.1.4 AOC 3 – Former Zinc Plating Line

The concentrations of metals detected in the sample and duplicate sample collected from soil boring GP-41 at a depth of 5-7 ft bls were below the respective protection of groundwater PSRG or within the range of background concentrations detected at the site. The results of the soil assessment at AOC 3 indicate that metals detected in soils are within the range of background concentrations and are not indicative of a release of hazardous substances. No further soil assessment is necessary for AOC 3.

5.1.5 AOC 4 – Former Solvent-Based Painting/Storage

The analyses of the 2 soil samples collected at boring GP-39 indicated that no VOCs or SVOCs were detected at concentrations above their respective PSRGs. In addition, the concentrations of metals detected in the soil sample were below the respective protection of groundwater PSRG or within the range of background concentrations detected at the site. No further soil assessment is warranted at AOC-4.

5.1.6 AOC 5 – Abandoned Drum and Debris Piles in Wooded Area

The concentration of manganese detected in the sample collected from hand auger boring HA-4 was 519 mg/kg, and is within the range of background concentrations established for the Site. The results of the soil assessment at AOC 5 indicate that impacts to soils by metals are within the range of background concentrations and are not indicative of a release of hazardous substances. No further assessment is necessary at AOC 5.

5.2 GROUNDWATER ASSESSMENT RESULTS

To further evaluate and delineate Site groundwater quality impacts, five temporary monitor wells and six additional permanent monitor wells were installed and sampled as part of the RI activities. The analytical results for the groundwater sampling events conducted in 2014 and 2015 were compared to the applicable North Carolina groundwater standards under 15A NCAC 2L.0106 (NCAC 2L). Groundwater analytical results for VOCs and HSL metals are summarized in Tables 5 and 6, respectively. Natural attenuation parameters were also analyzed during the May 2014 groundwater sampling event, with results provided in Table 7. The laboratory analytical reports for the RI

groundwater samples are provided in Appendix F. A discussion of groundwater sampling results by major contaminant category is provided below.

Volatile Organic Compounds

The VOCs detected during the RI groundwater sampling activities are summarized below with their corresponding NCAC 2L groundwater standard.

Maximum Detected Volatile Organic Compound Concentrations in Groundwater

Compound	*Maximum Concentration*	*NC 2L Groundwater Standard*
Carbon disulfide	0.81	**700**
Chloroform	8.4	**70**
cis 1,2-Dichloroethene	55.8	**70**
1,4-Dioxane	0.81J	**3**
Ethylbenzene	1.1	**600**
Methyl tert butyl Ether	0.47J	**20**
Tetrachloroethene	**98.7**	**0.7**
Toluene	10.9	**600**
Trichloroethene	**3,030**	**3**
Xylenes (Total)	4.7	**500**

Concentrations in micrograms per liter (µg/L)
Bold and shaded values exceed the regulatory standard (15A NCAC 2L.0106 -April 2013)

As shown above, only two VOCs, TCE and PCE are detected in Site groundwater above their respective North Carolina groundwater standards. The primary VOC and driver for potential remediation detected in Site groundwater is TCE. The Figures 12 and 13 show the distribution of TCE in the saprolite and upper bedrock aquifer zones, respectively based on results of the 2014/2015 groundwater sampling events. Figure 14 shows the distribution of PCE across the site as vertical maximums at each well, where detected. A cross section location map and generalized geologic cross sections and plume distribution profiles for TCE are included as Figures 15, 16 and 17.

Metals

The 2014 RI groundwater assessment evaluated eight select HSL metals (antimony, beryllium, copper, manganese, nickel, thallium and zinc) that were not included in previous assessment activities at the Site. The analytical results for metals in groundwater are summarized in Table 6.

The 2014 groundwater analytical results indicate concentrations of copper, manganese and nickel at levels above the respective NCAC 2L standard in the groundwater sample collected from monitor well GP-2, located at the former

vapor degreaser area. Manganese was also detected above the NCAC 2L standard in groundwater at MW-1, located approximately 300 feet northeast and downgradient of GP-2.

As shown above and in Table 6, 8 of the 14 HSL metals were detected between current and historical groundwater assessment efforts in samples collected from temporary and permanent monitor wells. Five of the detected metals; cadmium, total chromium, copper, lead and manganese exceed their applicable groundwater standard in various wells at the site.

Cadmium was only detected in groundwater samples collected from 2 temporary monitor wells. No detectable levels of cadmium were present in any groundwater samples collected from the permanent monitor wells. These results suggest that the cadmium detections are attributable to turbidity in the temporary wells. The elevated chromium concentrations were only detected in groundwater in the two bedrock aquifer monitor wells. No detectable levels of chromium were present in any shallow groundwater samples collected from the shallow saprolite monitor wells. The results, including the absence of elevated chromium levels in any site soils (see Table 3), indicate that there has not been a release of chromium at the site. Nickel was reported at a concentration above its respective NCAC 2L standard, but the results was qualified by the lab to be present in the method blank. Thus, the single detection of elevated nickel appears to be a laboratory contaminant.

Natural Attenuation Parameter Screening

Groundwater samples were collected from select wells and analyzed for natural attenuation parameters during the May 2014 groundwater sampling event. Results of the natural attenuation screening and field parameters are summarized in Table 7. The laboratory analytical reports for the RI groundwater samples are provided in Appendix F.

Based on the results, site groundwater conditions appear generally favorable to natural attenuation by reductive dechlorination with respect to nitrate, nitrite, and sulfate. The results indicate that reductive dechlorination may be limited with respect to total organic carbon, dissolved oxygen and oxidation reduction potential.

5.3 TENTATIVELY IDENTIFIED COMPOUNDS

Tentatively identified compounds (TICs) are listed in Tables 8 (SVOCs) and 9 VOCs), respectively. Based on a review of the data, the majority of the TICs were not retained for future analysis by reason of 1) detection in only one sample, 2) known/suspected lab contaminant, 3) naturally occurring 4) known/suspected anthropogenic source constituent, or 5) unknown/unidentified compound. In

accordance with the IHSB guidance, the following TICs were retained for consideration for future analysis:

- Cyclotrisiloxane, hexamethyl
- Cyclotetrasiloxane, octamethyl

5.4 *QUALITY ASSURANCE/QUALITY CONTROL EVALUATION*

In accordance with the Work Plan, ERM implemented Quality Assurance (QA) and Quality Control (QC) procedures to ensure that technical data generated during sampling activities were accurate, complete and representative of actual field conditions. Level II analytical reports, as defined in the EPA Contract Laboratory Program, were provided by the laboratory.

ERM collected one equipment rinse blank for soil sampling equipment (RB-1) and two equipment rinse blanks for groundwater sampling equipment (RB-1 and EB-1). Two soil duplicate samples (DUP-1 and DUP-2) and two groundwater duplicate samples (DUP-1 and DUP-2) were collected during field activities with blank times for submittal as laboratory-blind samples. Seven laboratory-prepared trip blanks were included as a check on the occurrence of cross-contamination that may occur as a result of field handling or laboratory handling. The QA/QC samples indicated that the data are reliable and reproducible. Results of QA/QC sampling for soil and groundwater are included in Table 10 and Table 11, respectively.

Laboratory QA/QC exceptions were noted by Accutest Laboratories for soil data reports FA14744 and FA14869. The laboratory noted that reporting limits were elevated due to matrix interference.

Laboratory QA/QC exceptions were noted by Accutest Laboratories for groundwater data reports FA15149, FA15824, FA14906, FA15195, and FA15250. Exceptions included: No TICs were detected in select samples (FA15149 and FA14906); Associated blank sample recovery was outside control limits for some samples (FA15149, FA15824, FA15195); Elevated reporting limits due to matrix interference (FA15250); and Field analysis required - Received out of hold time and analyzed by request (FA15195 [sulfite analysis]).

5.5 *DEVIATIONS FROM THE WORK PLAN*

The following is a summary of deviations from activities presented in the RI Work Plan:

- At AOC 2, two soil samples were collected from DPT soil boring GP-49 but only one was analyzed for select HSL metals. There were no exceedances of the PSRGs for HSL metals in the sample collected from the depth interval 5-7

ft bls; therefore, the deeper sample (from depth interval 28-30 ft bls) was not analyzed.

- At AOC 3, two soil samples were collected from DPT soil boring GP-41 but only one was analyzed for select HSL metals. The manganese concentration in the sample collected from the depth interval 5-7 ft bls was within the range of background concentrations reported for the site. Therefore, the deeper sample (from depth interval 23-25 ft bls) was not analyzed.
- At AOC 4, two soil samples were collected from DPT soil boring GP-39 but only one was analyzed for select HSL metals. The manganese concentration in the sample collected from the depth interval 2-3 ft bls was within the range of background concentrations reported for the site. Therefore, the deeper sample (from depth interval 10-11 ft bls) was not analyzed.
- Due to difficulty in positioning the DPT drill rig into AOC 5 because of heavy vegetation, a hand auger was used to install soil boring HA-4 instead of a DPT rig. The hand auger reached refusal at a depth of approximately 1 foot. Therefore, only one soil sample was collected at AOC 5, which was collected from the depth interval 0 to 1 foot bls.

6.0 SUMMARY OF FINDINGS

Based on the historical and the 2014 RI assessment results, the major findings of the remedial investigation at the site include the following:

Soils

A residual VOC source mass in soils has been characterized and delineated at the Former Vapor Degreaser Area (AOC 1). The affected soils are attributed to historical releases related to the former use of TCE at the Vapor Degreaser Area. As required, the extent of the VOC-affected soils has been delineated to the unrestricted/residential Preliminary Soil Remediation Goal (PSRG) of 880 ug/kg TCE. Only two soil samples, both located beneath the concrete floor, contain VOC concentrations above the industrial PSRG.

Based on the soil assessment results, there are no apparent releases of TCE or other site-related hazardous substances at the five other AOCs at the site: Bright Dip Line (AOC 2), Former Zinc Plating Line (AOC 3), Former Solvent-Based Painting/Storage Area (AOC 4), Drum & Debris Piles (AOC 5) and Hazardous Waste Storage Area (AOC 6).

In accordance with IHSB guidance, a site specific protection of groundwater remediation goal for TCE affected soil of 6,600 µg/kg (6.6 mg/kg) has been calculated for the affected soils in AOC 1.

The detected metals concentrations in site soils are determined to be within naturally occurring background concentrations (arsenic and manganese), are sporadic and isolated in occurrence (mercury and nickel) and/or are not site related (selenium).

Based on soil sampling, SVOCs are not compounds of concern at the site.

Groundwater

TCE is the primary contaminant of concern in Site groundwater with the highest concentration detected in the samples collected from MW-7, installed in the immediate downgradient vicinity of the Former Vapor Degreaser Area (AOC 1). The VOC-affected groundwater, as defined by TCE concentrations, extends from AOC 1 to the northeast in the shallow saprolite aquifer and in the upper and intermediate bedrock aquifer zones.

The lateral extent of the VOC-affected (TCE and PCE) groundwater in the shallow saprolite aquifer zone is delineated within the property boundary. With the installation and sampling of monitor well DW-6 and DW-6D, the lateral

extent of the VOC-affected groundwater in the upper and intermediate bedrock aquifer zones has been effectively delineated to the NCAC 2L standard of 3.0 µg/L with a detected concentration of 3.6 µg/L (shallow bedrock aquifer zone) and 3.0 µg/L (intermediate bedrock aquifer zone), respectively.

Based on analyses of groundwater samples from vertical extent well DW-2D, the VOC-affected groundwater extends into the intermediate-depth bedrock aquifer zone to approximately 160 ft bls and the vertical extent has been delineated.

The VOC PCE is a secondary contaminant at the Site and is detected in groundwater samples in both shallow saprolite, shallow and intermediate bedrock aquifer zones. No detectable levels of PCE are present in the shallow aquifer groundwater samples collected from the downgradient monitor wells (MW-1, MW-2 & MW-16). Relative to the NCAC 2L standard for PCE of 0.7 µg/L, low levels of PCE were detected in groundwater collected samples from the newly installed downgradient off-site wells to the northeast completed in the upper bedrock aquifer (0.55J µg /L PCE at DW-6) and in the intermediate bedrock aquifer(1.8 µg /L PCE at DW-6D). Based on these results, the PCE is considered to be practically delineated in these aquifer zones at the site. Continued monitoring is warranted to confirm the PCE delineation.

Based on results of natural attenuation analysis, site groundwater conditions appear generally favorable to natural attenuation by reductive dechlorination with respect to nitrate, nitrite, and sulfate. The capacity for natural attenuation appears to be limited with respect to total organic carbon and oxidation reduction potential.

Metals are not considered to be constituents of concern in groundwater at the site. A possible exception is elevated copper, manganese and nickel in groundwater at monitor well GP-2 located at the Former Vapor Degreaser Area. Additional groundwater sampling is necessary to determine if the detected metals are related to the source area release or GP-2 well construction.

Sensitive Receptor Survey

- The area in the vicinity of the site is served by the Town of Elon public water supply system.
- Based on a water supply well survey performed in 2014 within ½-mile of the subject property, two inactive water wells are located on separate residential properties to the north (hydraulically downgradient) of the site on West Haggard Avenue. Both properties are served by the Town of Elon public water supply system. The nearest active water supply well is located approximately 300 feet northwest and sidegradient from the northwest property corner of the Site at a commercial business at West Haggard Avenue.

TABLES

TABLE 1. MONITOR WELL CONSTRUCTION AND GROUNDWATER ELEVATION SUMMARY - ECI ELON FACILITY - ELON, NORTH CAROLINA

Well ID	Installation Date	Drilling Method	Well Type	Diameter/ Material/ Casing	Monitored Aquifer Zone	Surface Casing Depth (ft bls)	Total Depth (ft bls)	Screen Interval (ft bls)	Land Surface Elevation (ft msl)	Measuring Point Elevation TOC (ft msl)	Elevation Top of Screen (ft msl)	Elevation Bottom of Screen (ft msl)	Depth to Water (bmp)	Groundwater Elevation	Depth to Water (bmp)	Groundwater Elevation
													May 2014		January 2015	
Deep Wells																
DW-1	11/5-7/2012	HSA/Air Rotary	III	2-in PVC	Upper Bedrock	65	85	75 - 85	707.93	707.68	632.93	622.93	31.61	676.07	37.80	669.88
DW-2	2/14-20/2013	HSA/Air Rotary	III	2-in PVC	Intermediate Bedrock	100	131	101 - 131	705.31	705.06	604.31	574.31	58.57	646.49	62.31	642.75
DW-2D	10/6-7-2014	HSA/Air Rotary	III	2-in PVC	Lower Bedrock	150	227	217 - 227	705.19	704.94	488.19	478.19	70.00	Measured 10/9/2014	62.61	642.33
DW-3	5/12-14/2014	HSA/Air Rotary	III	2-in PVC	Upper Bedrock	59	80	70 - 80	685.40	688.23	615.4	605.4	14.00	674.23	18.91	669.32
DW-4	5/14-16-2014	HSA/Air Rotary	III	2-in PVC	Upper Bedrock	60	85	74 - 84	695.75	695.40	621.75	611.75	37.48	657.92	41.51	653.89
DW-5	5/15-19/2014	HSA/Air Rotary	III	2-in PVC	Upper Bedrock	68	83	73 - 83	711.74	711.38	638.74	628.74	22.20	689.18	26.34	685.04
DW-6	1/12-19/2015	HSA/Air Rotary	III	2-in PVC	Upper Bedrock	63	85	75 - 85	693.57	693.26	618.57	608.57			43.77	649.49
DW-6D	1/12-19/2015	HSA/Air Rotary	III	2-in PVC	Intermediate Bedrock	100	140	120 - 140	693.43	693.30	573.43	553.43			50.86	642.44
Monitor Wells																
GP-2	7/20/2011	Direct Push	II	1-in PVC	Saprolite	--	45	35 - 45	712.52	712.35	677.52	667.52	35.67	676.68	NM	NM
MW-1	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	40	25 - 35	695.42	695.17	670.42	660.42	22.04	673.13	27.12	668.05
MW-2	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	35	25 - 35	703.33	703.08	678.33	668.33	26.90	676.18	29.07	674.01
MW-3	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	35	25 - 35	709.34	709.09	684.34	674.34	29.45	679.64	32.90	676.19
MW-4	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	40	28 - 38	711.79	711.54	683.79	673.79	23.08	688.46	26.60	684.94
MW-5	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	35	22 - 32	708.93	708.68	686.93	676.93	21.23	687.45	25.13	683.55
MW-6	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	35	25 - 35	707.28	707.03	682.28	672.28	26.41	680.62	32.65	674.38
MW-7	7/19/2011	Direct Push	II	2-in PVC	Saprolite	--	40	30 - 40	708.29	708.04	678.29	668.29	32.01	676.03	37.38	670.66
MW-8	11/6/2012	Direct Push	II	2-in PVC	Saprolite	--	40	30 - 40	707.49	707.24	677.49	667.49	31.37	675.87	36.26	670.98
MW-9	11/6/2012	Direct Push	II	2-in PVC	Saprolite	--	39	29 - 39	705.22	704.97	676.22	666.22	29.72	675.25	34.80	670.17
MW-10	11/6/2012	Direct Push	II	2-in PVC	Saprolite	--	40	30 - 40	708.79	708.54	678.79	668.79	28.16	680.38	31.25	677.29
MW-11	11/6/2012	Direct Push	II	2-in PVC	Saprolite	--	40	30 - 40	704.05	703.80	674.05	664.05	27.57	676.23	33.40	670.40
MW-12	11/5/2012	Direct Push	II	2-in PVC	Saprolite	--	40	30 - 40	701.05	700.80	671.05	661.05	21.27	679.53	28.33	672.47
MW-13	11/6/2012	Direct Push	II	2-in PVC	Saprolite	--	30	20 - 30	706.91	706.66	686.91	676.91	21.02	685.64	25.77	680.89
MW-14	2/11/2013	Direct Push	II	2-in PVC	Saprolite	--	30	20 - 30	687.41	690.81	667.41	657.41	13.20	677.61	19.76	671.05
MW-15	2/11/2013	Direct Push	II	2-in PVC	Saprolite	--	30	20 - 30	685.10	688.47	665.1	655.1	13.72	674.75	18.96	669.51
MW-16	2/11/2013	Direct Push	II	2-in PVC	Saprolite	--	30	20 - 30	684.91	688.24	664.91	654.91	15.23	673.01	19.41	668.83

Notes:
ft bls = feet below land surface
ft msl = feet above mean sea level
bmp = below monitor point

TABLE 2. HYDRAULIC GRADIENT SUMMARY - ECI ELON FACILITY - ELON, NORTH CAROLINA

Vertical Hydraulic Gradients

Well Designation	January 2015							
	Reference Elevation (ft ASL)	Depth to Water (ft)	Head Measurement Location Elevation (relative ft ASL)	Head Elevation (ft)	Head Change (ft)	Length Change (ft)	Hydraulic Gradient (ft/ft)	Up/ Down
MW-1	695.17	27.12	665.42	668.05	14.16	48.67	0.2909	Down
DW-4	695.40	41.51	616.75	653.89				
MW-4	711.54	26.60	678.79	684.94	-0.10	45.05	-0.0022	Up
DW-5	711.38	26.34	633.74	685.04				
MW-7	708.04	37.38	669.48	670.66	0.78	41.54	0.0188	Down
DW-1	707.68	37.80	627.93	669.88				
MW-9	704.97	34.80	668.20	670.17	27.42	78.89	0.3476	Down
DW-2	705.06	62.31	589.31	642.75				
MW-16	688.24	19.41	659.91	668.83	-0.49	49.51	-0.0099	Up
DW-3	688.23	18.91	610.40	669.32				
DW-6	693.26	43.77	613.57	649.49	7.05	50.14	0.1406	Down
DW-6D	693.30	50.86	563.43	642.44				

Notes:
(-) vertical gradient represents upward groundwater flow
(+) vertical gradient represents downward groundwater flow

Horizontal Hydraulic Gradient - Saprolite

Well Designation	January 2015					
	Reference Elevation (ft ASL)	Depth to Water (ft)	Head Elevation (ft)	Head Change (ft)	Distance Change (ft)	Hydraulic Gradient (ft/ft)
MW-4	711.54	26.60	684.94	14.28	290.93	0.0491
MW-7	708.04	37.38	670.66			
MW-7	708.04	37.38	670.66	1.83	450.84	0.0041
MW-16	688.24	19.41	668.83			
					Average Hydraulic Gradient	**0.0266**

Horizontal Hydraulic Gradient - Upper Bedrock

Well Designation	January 2015					
	Reference Elevation (ft ASL)	Depth to Water (ft)	Head Elevation (ft)	Head Change (ft)	Distance Change (ft)	Hydraulic Gradient (ft/ft)
DW-5	711.38	26.34	685.04	15.16	344.14	0.0441
DW-1	707.68	37.80	669.88			
DW-1	707.68	37.80	669.88	0.56	412.50	0.0014
DW-3	688.23	18.91	669.32			
					Average Hydraulic Gradient	**0.0227**

Seepage Velocity Calculation

Slug Test and Aquifer Test Analysis Summary			
Monitoring Well	Hydrostratigraphic Unit	Hydraulic Conductivity (cm/sec)	(ft/day)
MW-1	Shallow	1.52E-04	0.429
	Shallow	1.71E-04	0.484
MW-4	Shallow	2.02E-05	0.057
MW-7	Shallow	1.79E-05	0.051
	Shallow	1.21E-05	0.034
	Geometric Mean for Shallow:	**4.08E-05**	**0.116**
DW-3	Upper Bedrock	1.31E-04	0.372
	Upper Bedrock	5.62E-04	1.592
	Upper Bedrock	1.26E-04	0.358
DW-5	Upper Bedrock	4.68E-04	1.325
	Upper Bedrock	3.67E-04	1.040
	Geometric Mean for Upper Bedrock:	**2.76E-04**	**0.782**
DW-2	Intermediate Bedrock	3.09E-06	0.009
	Intermediate Bedrock	4.77E-06	0.014
	Geometric Mean for Lower Bedrock:	**3.84E-06**	**0.011**

Saprolite aquifer seepage velocity = Ki/n_e

where:
K is hydraulic conductivity (geometric mean for the primary flowpath)
i = horizontal hydraulic gradient (average of values presented above)
n_e = effective porosity

Estimated Effective Porosity Values

Shallow	0.35
Upper Bedrock	0.10
Lower Bedrock	0.10

Seepage Velocity (Saprolite) =
= (0.000041) (0.0266) / (0.35) = 3.10E-06 cm/sec
or 0.009 ft/day
or **3.20 ft/yr**

Seepage Velocity (Upper Bedrock) =
= (0.000276) (0.0227) / (0.1) = 6.26E-05 cm/sec
or 0.178 ft/day
or **64.80 ft/yr**

Seepage Velocity (Intermediate Bedrock) =
= (0.00000384) (0.0227) / (0.1) = 8.72E-07 cm/sec
* assumes same horizontal gradient as upper bedrock
or 0.002 ft/day
or **0.90 ft/yr**

TABLE 3. SUMMARY OF HISTORICAL SOIL RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Depth	Date	VOCs - Method 5035A/8260B (µg/kg)								SVOCs - Method 8270 (µg/kg)		Metals - Method 6010B/7471 (mg/kg)																TPH - Method 8015D and 3546/DRO (mg/kg)	
			Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	TICs	Standard Analytes	TICs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Gasoline Range - GRO	Diesel Range - DRO
Delineation Criteria - Residential			1E+07	290	32000	6E+06	17000	880	4900	Varies	Varies	Varies	6.2	0.61	3000	32	14	24000	0.29	620	400	360	2	300	78	78	0.61	4600	10*	40*
PSRGs - Industrial			1E+08	1500	400000	3E+07	82000	4000	17000	Varies	Varies	Varies	82	2.4	38000	400	160	1E+05	5.6	8200	800	4600	3.1	4000	1000	1000	2	62000		
PSRGs - Protection of Groundwater			24000	340	360	16000	5	18	12	Varies	Varies	Varies	0.9	5.8	580	63	3	4E+05	3.8	700	270	65	1	130	2.1	3.4	0.28	1200		
Background Samples																														
BG-1	5'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.5	<0.73	NA	0.29 B	0.55	26.9	NA	27	8.4	**165**	0.024 B	3.9	<1.5	0.4 B	<0.73	9.7	NA	NA
BG-1	15'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3** B	**1.4** B	NA	0.51 B	0.36 B	8.9	NA	44.6	6.6	**698**	0.008 B	6.3 B	**2.5** B	<3.6	<3.6	29.3	NA	NA
BG-2	5'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.5	<1.3	NA	0.27 B	0.63	41.5	NA	26.5	10.8	56.6	0.015 B	6.1	**2.9**	0.18 B	<1.3	13.4	NA	NA
BG-2	15'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.2	0.23 B	NA	0.095 B	<0.24	2.1	NA	11.6	3.3	**126**	<0.055	2.4	<1.2	<0.6	<0.6	20	NA	NA
BG-3	5'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.2	0.34 B	NA	0.13 B	<0.24	11.1	NA	13.7	5.8	29.5	0.011 B	1.6 B	<1.2	0.078 B	<0.6	10.8	NA	NA
BG-3	15'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.5	0.56 B	NA	<1.1	<0.9	5.1	NA	46.4	4.7	**198**	<0.057	2.4 B	0.76 B	<2.2	<2.2	42.5	NA	NA
BG-4	5'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.5	0.3 B	NA	0.15 B	0.26 B	10.2	NA	19.8	7.3	**127**	0.033 B	2.4 B	1.9 B	0.094 B	<2.6	39.2	NA	NA
BG-4	15'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<13	**1.7** B	NA	0.45 B	<2.5	9.4	NA	40.7	8	**1060**	<0.06	8.9 B	**2.2** B	<6.4	<6.4	107	NA	NA
BG-5	5'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.9	**1** B	NA	<1.5	0.15 B	17.8	NA	6.1 B	20.6	**1080**	0.024 B	7 B	1.1 B	<3	<3	64	NA	NA
BG-5	13'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<28	**3.5** B	NA	0.88 B	<5.6	28.8	NA	23.3 B	8.3	**1260**	<0.063	25.4 B	<28	<14	<14	104	NA	NA
ERM Samples																														
HA-4	0-1'	5/6/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA	NA	0.23 B	NA	NA	NA	13.2	NA	**519**	NA	2.9	NA	NA	<0.52	11.4	NA	NA
GP-39	2-3'	5/5/2014	31.1 J	<5.7	<5.7	<28	<5.7	<5.7	<230	BDL	BDL	see Table 3	<2.2	0.4 B	NA	0.2 B	0.06 B	29	NA	14.9	9	**76.2**	0.1	3.4 B	<2.2	0.1 B	<2.2	9	NA	NA
GP-39	10-11'	5/5/2014	<56	<5.6	<5.6	<28	<5.6	<5.6	<220	BDL	BDL	see Table 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-40	5-7'	5/7/2014	23.5 J	2 J	12.8	<29	<5.9	**157**	<240	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-40 (Dup-2)	5-7'	5/7/2014	22.7 J	3.1 J	21.3	<31	<6.2	**464**	<250	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-40	18-20'	5/7/2014	19.3 J	<6.4	11.1	<32	4.3 J	**308** J	<250	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-41	5-7'	5/7/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.2	NA	NA	0.21 B	NA	NA	NA	22.4	NA	**157**	NA	3.7	NA	NA	<0.58	8	NA	NA
GP-41 (Dup-1)	5-7'	5/7/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.1	NA	NA	0.18 B	NA	NA	NA	18.3	NA	**125**	NA	3.1	NA	NA	<0.55	7.7	NA	NA
GP-42	5-7'	5/7/2014	32.8 J	30.6	15.6	<30	<6.1	**8290**	<240	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-42	20-22'	5/7/2014	29.9 J	2.7 J	11.7	<29	<5.8	**182**	<230	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-43	8-10'	5/7/2014	74.2	<6.3	**428**	<31	<6.3	**205**	<250	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-43	28-30'	5/7/2014	<71	<7.1	1.7 J	<35	<7.1	10	<280	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-44	5-7'	5/7/2014	185	3.8 J	12.5	9.1 J	<6	**201**	<240	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-44	23-25'	5/7/2014	<67	<6.7	<6.7	<33	<6.7	9.8	<270	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-49	5-7'	5/8/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.1	NA	NA	0.12 B	NA	NA	NA	11.8	NA	55.8	NA	2.1 B	NA	NA	<0.57	5.8	NA	NA
GaiaTech Samples																														
MW-1	5-7'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	43	NA	BDL	34	NA	NA	36	NA	0.048	NA	**4**	0.66	NA	NA	NA	NA
MW-2	3-5'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	36	NA	BDL	17	NA	NA	19	NA	BDL	NA	BDL	BDL	NA	NA	NA	NA
MW-3	5-7'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	20	NA	BDL	11	NA	NA	8.7	NA	0.029	NA	**12**	BDL	NA	NA	NA	NA
MW-4	8-10'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	31	NA	BDL	81	NA	NA	10	NA	0.1	NA	**5.8**	1.2	NA	NA	BDL	BDL
MW-5	3-5'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	24	NA	BDL	140	BDL	NA	10	NA	0.037	NA	**7.8**	BDL	NA	NA	NA	NA
MW-6	0-2'	7/19/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	54	NA	BDL	48	NA	NA	8.7	NA	0.03	NA	**5.4**	0.85	NA	NA	NA	NA
MW-7	3-5'	7/19/2011	BDL	BDL	78	BDL	BDL	**110**		BDL	BDL	BDL	NA	BDL	22	NA	BDL	57	NA	NA	10	NA	BDL	NA	**4.4**	0.65	NA	NA	NA	NA
MW-7	18-20'	7/19/2011	BDL	BDL	66	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	68	NA	BDL	62	NA	NA	3.2	NA	BDL	NA	**10**	BDL	NA	NA	NA	BDL
HA-1	0-1'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	**1.4**	63	NA	BDL	50	NA	NA	19	NA	0.04	NA	BDL	BDL	NA	NA	BDL	17
HA-2	0-1'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	61	NA	BDL	43	NA	NA	12	NA	0.034	NA	BDL	BDL	NA	NA	BDL	17
HA-3	0-1'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	290	NA	BDL	68	NA	NA	44	NA	BDL	NA	BDL	BDL	NA	NA	BDL	7.1
GP-1	5-7'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	22	NA	BDL	49	NA	NA	11	NA	0.028	NA	**3.6**	BDL	NA	NA	BDL	BDL
GP-1	38-40'	7/20/2011	NA	NA	NA	BDL	NA	NA		BDL	BDL	BDL	NA	BDL	120	NA	BDL	78	NA	NA	BDL	NA	BDL	NA	**12**	BDL	NA	NA	BDL	BDL
GP-2	5-7'	7/20/2011	BDL	BDL	BDL	BDL	BDL	4.8		BDL	NA	NA	NA	BDL	27	NA	BDL	100	BDL	NA	8.6	NA	0.039	NA	BDL	BDL	NA	NA	BDL	BDL
GP-2	18-20'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-2	35-36'	7/20/2011	BDL	BDL	BDL	BDL	2.9	**160**		BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-3	1-3'	7/20/2011	BDL	BDL	BDL	BDL	BDL	**26**		BDL	BDL	BDL	NA	BDL	38	NA	BDL	44	NA	NA	14	NA	0.05	NA	1.6	BDL	NA	20	BDL	BDL
GP-4	1-3'	7/20/2011	BDL	BDL	BDL	BDL	BDL	**20**		BDL	BDL	BDL	NA	BDL	25	NA	BDL	41	NA	NA	6.9	NA	0.067	NA	**4.5**	BDL	NA	NA	NA	NA
GP-5	13-15'	7/20/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	21	NA	BDL	16	NA	NA	5.9	NA	BDL	NA	BDL	BDL	NA	6.9	BDL	BDL
GP-6	10-12'	7/21/2011	BDL	BDL	BDL	BDL	BDL	1.6		BDL	BDL	BDL	NA	BDL	26	NA	BDL	210	BDL	NA	BDL	NA	0.057	NA	**24**	BDL	NA	NA	BDL	BDL
GP-7	13-15'	7/21/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	150	NA	BDL	140	NA	NA	BDL	NA	BDL	NA	**22**	BDL	NA	NA	BDL	BDL

TABLE 3. SUMMARY OF HISTORICAL SOIL RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Depth	Date	VOCs - Method 5035A/8260B (µg/kg)								SVOCs - Method 8270 (µg/kg)		Metals - Method 6010B/7471 (mg/kg)																TPH - Method 8015D and 3546/DRO (mg/kg)	
			Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	TICs	Standard Analytes	TICs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Gasoline Range - GRO	Diesel Range - DRO
Delineation Criteria - Residential			1E+07	290	32000	6E+06	17000	880	4900	Varies	Varies	Varies	6.2	0.61	3000	32	14	24000	0.29	620	400	360	2	300	78	78	0.61	4600	10*	40*
PSRGs - Industrial			1E+08	1500	400000	3E+07	82000	4000	17000	Varies	Varies	Varies	82	2.4	38000	400	160	1E+05	5.6	8200	800	4600	3.1	4000	1000	1000	2	62000		
PSRGs - Protection of Groundwater			24000	340	360	16000	5	18	12	Varies	Varies	Varies	0.9	5.8	580	63	3	4E+05	3.8	700	270	65	1	130	2.1	3.4	0.28	1200		
GP-7	30-32'	7/21/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-8	10-12'	7/21/2011	BDL	BDL	BDL	BDL	BDL	3.1		BDL	BDL	BDL	NA	BDL	32	NA	BDL	48	NA	NA	6.7	NA	0.034	NA	**21**	BDL	NA	NA	BDL	BDL
GP-9	1-3'	7/21/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	30	NA	BDL	48	NA	NA	4.6	NA	0.16	NA	**15**	BDL	NA	NA	BDL	BDL
GP-10	1-3'	7/22/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	**2**	33	NA	BDL	150	NA	NA	14	NA	**2.3**	NA	**10**	BDL	NA	NA	NA	NA
GP-11	8-10'	7/22/2011	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	NA	BDL	33	NA	BDL	88	NA	NA	21	NA	0.041	NA	**15**	BDL	NA	NA	BDL	BDL
GP-12	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-12	35'	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	15'	11/14/2012	166	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-13	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	6"	11/14/2012	140	16.1	BDL	BDL	BDL	**462**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	5'	11/14/2012	BDL	12.1	8.9	BDL	BDL	**9000**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	10'	11/14/2012	BDL	BDL	12.6	BDL	BDL	**232**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	15'	11/14/2012	182	BDL	19.4	BDL	BDL	**391**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**89.7**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**81.1**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**106**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-14	35'	11/14/2012	BDL	BDL	BDL	BDL	**7.7**	**227**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	6"	11/14/2012	151	BDL	BDL	BDL	BDL	**34.9**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**34.8**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	10'	11/14/2012	BDL	BDL	12.4	BDL	BDL	**172**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**30.6**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**135**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**37.5**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**26**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-15	35'	11/14/2012	BDL	BDL	BDL	BDL	**10.7**	**414**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	10'	11/14/2012	115	BDL	BDL	BDL	BDL	14.5		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	6.2		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	12.2		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**21.6**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-16	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**44.1**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	6"	11/14/2012	109	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-17	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3. SUMMARY OF HISTORICAL SOIL RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Depth	Date	VOCs - Method 5035A/8260B (µg/kg)								SVOCs - Method 8270 (µg/kg)		Metals - Method 6010B/7471 (mg/kg)																TPH - Method 8015D and 3546/DRO (mg/kg)	
			Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	TICs	Standard Analytes	TICs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Gasoline Range - GRO	Diesel Range - DRO
Delineation Criteria - Residential			1E+07	290	32000	6E+06	17000	880	4900	Varies	Varies	Varies	6.2	0.61	3000	32	14	24000	0.29	620	400	360	2	300	78	78	0.61	4600	10*	40*
PSRGs - Industrial			1E+08	1500	400000	3E+07	82000	4000	17000	Varies	Varies	Varies	82	2.4	38000	400	160	1E+05	5.6	8200	800	4600	3.1	4000	1000	1000	2	62000		
PSRGs - Protection of Groundwater			24000	340	360	16000	5	18	12	Varies	Varies	Varies	0.9	5.8	580	63	3	4E+05	3.8	700	270	65	1	130	2.1	3.4	0.28	1200		
GP-18	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	9.2		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-18	35'	-	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	10'	11/14/2012	BDL	BDL	BDL	BDL	**5.1**	**44.4**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**40.4**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-19	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	6"	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	5'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**44**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**20.2**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	16.9		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-20	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	9		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	6"	11/14/2012	232	11.9	BDL	BDL	**26.2**	**140**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	5'	11/14/2012	BDL	6.1	BDL	BDL	**19.6**	**113**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	10'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**24.3**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	15'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**61.1**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	20'	11/14/2012	BDL	BDL	BDL	BDL	BDL	7.4		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	25'	11/14/2012	BDL	BDL	BDL	BDL	BDL	12.5		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	30'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**74.7**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-21	35'	11/14/2012	BDL	BDL	BDL	BDL	BDL	**136**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	6"	11/14/2012	BDL	BDL	33.3	BDL	BDL	**71.3**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	5'	11/14/2012	BDL	BDL	47.2	BDL	BDL	**36.2**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	10'	11/14/2012	BDL	BDL	69.3	BDL	BDL	**53.7**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	15'	11/14/2012	BDL	BDL	294	BDL	BDL	**21.5**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	20'	11/14/2012	BDL	BDL	93.1	BDL	BDL	17.5		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	25'	11/14/2012	BDL	BDL	85	BDL	BDL	7.6		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	30'	11/14/2012	BDL	BDL	30.6	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-22	35'	11/14/2012	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	6"	11/14/2012	BDL	BDL	61.2	BDL	BDL	**157**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	5'	11/14/2012	BDL	BDL	39.9	BDL	BDL	**65.4**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	10'	11/14/2012	BDL	BDL	116	BDL	BDL	**18.2**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	15'	11/14/2012	BDL	BDL	87.2	BDL	BDL	**21.4**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	20'	11/14/2012	BDL	BDL	43	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	25'	11/14/2012	BDL	BDL	88.1	BDL	BDL	**21.9**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	30'	11/14/2012	BDL	BDL	151	BDL	BDL	**54.8**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-23	35'	11/14/2012	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	6"	11/8/2012	BDL	BDL	BDL	BDL	BDL	14.8		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	5'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	10'	11/8/2012	BDL	BDL	18.4	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	15'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	20'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	25'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	30'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-24	35'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	6"	11/8/2012	158	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	5'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	10'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	15'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	20'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	25'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3. SUMMARY OF HISTORICAL SOIL RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Depth	Date	VOCs - Method 5035A/8260B (µg/kg)								SVOCs - Method 8270 (µg/kg)		Metals - Method 6010B/7471 (mg/kg)																TPH - Method 8015D and 3546/DRO (mg/kg)	
			Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	TICs	Standard Analytes	TICs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Gasoline Range - GRO	Diesel Range - DRO
Delineation Criteria - Residential			1E+07	290	32000	6E+06	17000	880	4900	Varies	Varies	Varies	6.2	0.61	3000	32	14	24000	0.29	620	400	360	2	300	78	78	0.61	4600	10*	40*
PSRGs - Industrial			1E+08	1500	400000	3E+07	82000	4000	17000	Varies	Varies	Varies	82	2.4	38000	400	160	1E+05	5.6	8200	800	4600	3.1	4000	1000	1000	2	62000		
PSRGs - Protection of Groundwater			24000	340	360	16000	5	18	12	Varies	Varies	Varies	0.9	5.8	580	63	3	4E+05	3.8	700	270	65	1	130	2.1	3.4	0.28	1200		
GP-25	30'	11/8/2012	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-25	35'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-26	6"	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.15	BDL	19.4	BDL	15.2	14.1	**220**	0.032	2.1	BDL	BDL	BDL	14	NA	NA
GP-26	5'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.17	0.25	28.9	BDL	11.8	11	**153**	0.087	1.4	1.6	BDL	BDL	9.8	NA	NA
GP-26	10'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	16.3	BDL	7.3	5.4	25.8	0.012	0.87	1.2	BDL	BDL	5.8	NA	NA
GP-26	15'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	7.8	BDL	7.1	1.9	**103**	0.011	0.9	BDL	BDL	BDL	20.7	NA	NA
GP-26	20'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.17	BDL	6	BDL	11.2	2.6	**247**	BDL	5.3	BDL	BDL	BDL	25.5	NA	NA
GP-26	25'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	1.9	BDL	93.7	BDL	42.4	4.9	**1270**	BDL	48.2	**9.5**	BDL	BDL	110	NA	NA
GP-26	30'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	1.1	0.63	62.7	BDL	26	3.8	**611**	BDL	33.4	BDL	BDL	BDL	93.2	NA	NA
GP-26	35'	-	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
GP-27	6"	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.27	1	34.2	BDL	73	11.8	**195**	0.035	3.7	1.9	BDL	BDL	97.8	NA	NA
GP-27	5'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	34.2	BDL	5.2	5	14.7	0.078	BDL	1.6	BDL	BDL	2.9	NA	NA
GP-27	10'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.18	0.99	67.2	BDL	16.4	13.2	9.6	0.027	1.1	1.6	BDL	BDL	7.4	NA	NA
GP-27	15'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.53	1.6	19.6	BDL	16.6	29.7	**261**	0.009	3	**3.1**	BDL	BDL	23.3	NA	NA
GP-27	20'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	0.82	BDL	BDL	0.6	0.57	9.6	BDL	9.3	9	**561**	0.006	3.9	BDL	BDL	BDL	101	NA	NA
GP-27	25'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**0.73**	BDL	1.3	0.89	14.6	BDL	18.3	171	**9960**	0.008	**136**	**3.5**	BDL	BDL	232	NA	NA
GP-27	30'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.56	0.21	4.9	BDL	4.3	13.9	**452**	BDL	1.7	BDL	BDL	BDL	111	NA	NA
GP-27	35'	-	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
GP-28	6"	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.3	2.3	41.8	BDL	83.2	14.3	**338**	0.029	3.8	1.6	BDL	BDL	61.9	NA	NA
GP-28	5'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.31	1	275	BDL	5.8	14.9	**247**	0.034	1.5	1.4	BDL	BDL	6.3	NA	NA
GP-28	10'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**1.6**	BDL	0.15	0.85	20.9	BDL	8.3	7.4	**81.1**	0.029	1.3	2	BDL	BDL	7.1	NA	NA
GP-28	15'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.22	1.8	53.1	BDL	33	4.8	12.5	0.043	2.3	2	BDL	BDL	20.5	NA	NA
GP-28	20'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**0.68**	BDL	0.15	BDL	2.9	BDL	15.6	2.7	**151**	0.007	2.7	BDL	BDL	BDL	35.8	NA	NA
GP-28	25'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	0.6	BDL	0.29	BDL	4	BDL	7.5	4.8	**383**	0.007	7.3	BDL	BDL	BDL	46.6	NA	NA
GP-28	30'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.3	BDL	2	BDL	2.7	4.8	**355**	BDL	4.7	BDL	BDL	BDL	54.7	NA	NA
GP-28	35'	-	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NA	NA
GP-29	6"	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**0.8**	BDL	0.28	1.5	34.6	BDL	20.1	13.6	**318**	0.023	3	1.8	BDL	BDL	20.5	NA	NA
GP-29	5'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**1.5**	BDL	0.23	0.87	34.2	BDL	15.4	8.4	**156**	0.032	2.8	1.2	BDL	BDL	11.4	NA	NA
GP-29	10'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	0.6	**8.6**	75.7	BDL	46.8	13.5	**181**	0.039	4.4	**4.2**	BDL	BDL	28.1	NA	NA
GP-29	15'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	BDL	BDL	1.9	**8.9**	16.5	BDL	93.3	9.8	**660**	0.018	10	**3.5**	BDL	BDL	38.4	NA	NA
GP-29	20'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	0.77	BDL	BDL	2.2	**5.6**	5.7	BDL	96.8	6.4	**825**	0.015	13.1	**2.8**	BDL	BDL	48.4	NA	NA
GP-29	25'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**1.2**	BDL	1.5	1.3	BDL	BDL	87	3.2	**414**	BDL	12.3	1.6	BDL	BDL	79.2	NA	NA
GP-29	30'	11/8/2012	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	BDL	**1.7**	BDL	1.4	0.5	9.9	BDL	63.4	BDL	**342**	BDL	20.9	**3.6**	BDL	BDL	138	NA	NA
GP-29	35'	-	NA	NA	NA	BDL	NA	NA		BDL	NA	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
GP-30	6"	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	5'	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	10'	2/12/2013	BDL	BDL	7.9	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	15'	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	20'	2/12/2013	BDL	BDL	BDL	BDL	BDL	9		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	**19.9**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	30'	2/12/2013	BDL	BDL	BDL	BDL	BDL	**24.2**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-30	35'	2/12/2013	BDL	BDL	BDL	BDL	BDL	**56.6**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	6"	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	5'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	10'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	15'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	20'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	30'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-31	35'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	6"	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	5'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	10'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	15'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	20'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	30'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-32	35'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3. SUMMARY OF HISTORICAL SOIL RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Depth	Date	VOCs - Method 5035A/8260B (µg/kg)								SVOCs - Method 8270 (µg/kg)		Metals - Method 6010B/7471 (mg/kg)																TPH - Method 8015D and 3546/DRO (mg/kg)	
			Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	TICs	Standard Analytes	TICs	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Gasoline Range - GRO	Diesel Range - DRO
Delineation Criteria - Residential			1E+07	290	32000	6E+06	17000	880	4900	Varies	Varies	Varies	6.2	0.61	3000	32	14	24000	0.29	620	400	360	2	300	78	78	0.61	4600	10*	40*
PSRGs - Industrial			1E+08	1500	400000	3E+07	82000	4000	17000	Varies	Varies	Varies	82	2.4	38000	400	160	1E+05	5.6	8200	800	4600	3.1	4000	1000	1000	2	62000		
PSRGs - Protection of Groundwater			24000	340	360	16000	5	18	12	Varies	Varies	Varies	0.9	5.8	580	63	3	4E+05	3.8	700	270	65	1	130	2.1	3.4	0.28	1200		
GP-33	6"	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	5'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	10'	2/12/2013	BDL	BDL	BDL	BDL	BDL	**19.5**		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	15'	2/12/2013	BDL	BDL	BDL	BDL	BDL	13.4		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	20'	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	13.3		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	30'	2/12/2013	BDL	BDL	BDL	BDL	BDL	12.8		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-33	35'	-	-	-	-	BDL	-	-		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	6"	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	5'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	10'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	15'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	20'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	30'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-34	35'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	6"	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	5'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	10'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	15'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	20'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	25'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	30'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-35	35'	2/12/2013	BDL	BDL	BDL	BDL	BDL	BDL		BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
IHSB Preliminary health-based soil remediation goals (PSRGs) , updated January 2014
(µg/kg) = micrograms per kilogram
(mg/kg) = miligrams per kilogram
* Non-UST Program Action Levels
Only detected compounds are listed.
BDL: Below Laboratory Detection Limit; NA: Not Analyzed; NE: Not Established
VOCs: Volatile organic compounds; SVOCs: Semi-Volatile organic compounds; TPH: Total Petroleum Hydrocarbons
Highlighted values exceed the lowest of the listed PSRGs

TABLE 4. SUMMARY OF SYNTHETIC PRECIPITATION LEACHING PROCEDURE RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Sample Type	Depth	Date	Unit	VOCs - Method 8260B											
					Acetone	Benzene	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl ethyl ketone	Methylene chloride	Styrene	Tetrachloroethylene	Toluene	Trichloroethylene	Xylene (total)
		NC 2L Groundwater														
GP-40	Soil	05/07/14	5-7'	ug/kg	23.5 J	<5.9	2 J	12.8	<5.9	<29	<12	<5.9	<5.9	<5.9	157	<17.9
GP-40	Leachate	05/07/14	5-7'	ug/l	<25	5.2	<1	<1	37.8	<5	4.7 J	<1	2.3	94.5	1.2	220
GP-40	Soil	05/07/14	18-20'	ug/kg	19.3 J	<6.4	<6.4	11.1	<6.4	<32	<13	<6.4	4.3 J	<6.4	308 J	<19.4
GP-40	Leachate	05/07/14	18-20'	ug/l	<25	0.3 J	<1	<1	17	<5	<5	<1	<1	29	<1	133
GP-42	Soil	05/07/14	5-7'	ug/kg	32.8 J	<6.1	30.6	15.6	<6.1	<30	<12	<6.1	<6.1	<6.1	8290	<18.1
GP-42	Leachate	05/07/14	5-7'	ug/l	<25	<1	<1	<1	0.92 J	<5	<5	1.7	1.9	3.1	<1	5.8
GP-42	Soil	05/07/14	20-22'	ug/kg	29.9 J	<5.8	2.7 J	11.7	<5.8	<29	<12	<5.8	<5.8	<5.8	182	<17.8
GP-42	Leachate	05/07/14	20-22'	ug/l	<25	0.46 J	<1	<1	2.4	<5	<5	<1	5.6	10.7	<1	15
GP-43	Soil	05/07/14	8-10'	ug/kg	74.2	<6.3	<6.3	428	<6.3	<31	<13	<6.3	<6.3	<6.3	205	<19.3
GP-43	Leachate	05/07/14	8-10'	ug/l	<25	<1	<1	1	1.6	<5	<5	<1	<1	5.2	1.7	10.4
GP-43	Soil	05/07/14	28-30'	ug/kg	<71	<7.1	<7.1	1.7 J	<7.1	<35	<14	<7.1	<7.1	<7.1	10	<21.1
GP-43	Leachate	05/07/14	28-30'	ug/l	<25	<1	<1	<1	<1	<5	<5	<1	0.52 J	0.42 J	<1	<3
GP-44 (5-7)	Soil	05/07/14	5-7'	ug/kg	185	<6	3.8 J	12.5	<6	9.1 J	<12	<6	<6	<6	201	<18
GP-44	Leachate	05/07/14	5-7'	ug/l	<25	50.1	<1	<1	7.7	<5	<5	<1	<1	79.1	<1	73
GP-44 (23-25)	Soil	05/07/14	23-25	ug/kg	<67	<6.7	<6.7	<6.7	<6.7	<33	<13	<6.7	<6.7	<6.7	9.8	<19.7
GP-44	Leachate	05/07/14	23-25	ug/l	<25	<1	<1	<1	0.32 J	<5	<5	<1	0.43 J	1.9	<1	1.4 J

Notes:

Analytical results for the given compounds by Synthetic Precipitation Leaching Procedure were compared to analytical results using EPA Method 8260 to calculate a site-specific protection of remedial groundwater goal. Calculated value for TCE is 330 ug/kg using GP-40 5-7 and GP-43 8-10 data points. Insufficient detections were available for calculating remedial goals for PCE and cis-1,2-DCE.
VOCs = volatile organic compounds
µg/kg = micrograms per kilogram
µg/l = micrograms per liter

TABLE 5. SUMMARY OF HISTORICAL GROUNDWATER RESULTS FOR VOCs, SVOCs & TPH - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Date	VOCs - Method 5035A/8260B (µg/L)													SVOCs-8270	TPH 8015 & 3546 DRO	
		Total VOCs	Acetone	Bromodichloromethane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl Tert Butyl Ether	Tetrachloroethylene	Toluene	Trichloroethylene	Xylene (total)	1,4-Dioxane	Total SVOCs	Gasoline Range - GRO (C5 to C9) *	Diesel Range - DRO (C9 to C18)*
NC 2L Groundwater		**NE**	**6000**	**0.6**	**700**	**70**	**70**	**600**	**20**	**0.7**	**600**	**3**	**500**	**3**	Varies	400	700
DW-1	11/13/12	95.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**95.8**	BDL	NA	BDL	NA	NA
DW-1 (DUP)	11/13/12	96.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**96.1**	BDL	NA	BDL	NA	NA
DW-1	05/21/14	103.96	<25	<1	<2	0.33 J	16.4	<1	<1	**1.7**	0.23 J	**85.3**	<2	<1	NA	NA	NA
DW-1	10/16/14	73.34	<20	<1	NA	0.7 J	1.9	<1	<1	**0.74 J**	<1	**70**	<1	<3	NA	NA	NA
DW-1	12/08/14	94	<20	<5	<5	<5	<5	<5	<5	<5	<5	**94**	<5	NA	NA	NA	NA
DW-1	12/10/14	100	<20	<5	<5	<5	<5	<5	<5	<5	<5	**100**	<5	NA	NA	NA	NA
DW-2	02/20/13	26.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.9	**22.2**	2.4	NA	NA	NA	NA
DW-2 (DUP)	02/20/13	25.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.8	**21.2**	2.2	NA	NA	NA	NA
DW-2	03/13/13	47.9	42.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**5.2**	BDL	NA	NA	NA	NA
DW-2 (DUP)	03/13/13	46.1	41	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**5.1**	BDL	NA	NA	NA	NA
DW-2	05/19/14	52.29	<25	<1	<2	<1	<1	0.37 J	<1	0.56 J	0.22 J	**49.7**	1.44 J	<1	NA	NA	NA
DW-2	06/12/14	57.47	<25	<1	<2	<1	<1	1.1	<1	0.53 J	0.24 J	**50.9**	4.7	NA	NA	NA	NA
DW-2	10/16/14	49.18	<20	<1	NA	<1	<1	<1	<1	0.6 J	<1	**48**	0.58 J	<3	NA	NA	NA
DW-2D	10/16/14	1.6	<20	<1	NA	<1	<1	<1	<1	<1	<1	1.6	<1	<3	NA	NA	NA
DW-2D	02/12/15	1.7	<20	<1	NA	<1	<1	<1	<1	<1	<1	1.7	<1	<3	NA	NA	NA
DW-3	05/21/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
DW-3	06/12/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<3	NA	NA	NA	NA
DW-4	05/21/14	8.61	<25	<1	<2	<1	<1	<1	<1	<1	<1	**7.6**	1.01 J	<1	NA	NA	NA
DW-4	06/12/14	13.23	<25	<1	0.81 J	<1	<1	0.54 J	<1	<1	<1	**9.8**	2.08 J	NA	NA	NA	NA
DW-4	10/16/14	21.93	<20	<1	NA	<1	<1	<1	<1	0.43 J	<1	**20**	1.5	<3	NA	NA	NA
DW-5	05/21/14	1.8	<25	<1	<2	1.8	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
DW-6	01/29/15	12.2	<20	<1	NA	<1	<1	<1	<1	**8.2**	<1	**4**	<1	<3	NA	NA	NA
DW-6	02/12/15	5.11	<20	<1	NA	0.15 J	0.81 J	<1	<1	0.55 J	<1	**3.6**	<1	<3	NA	NA	NA
DW-6D	01/29/15	6.89	<20	<1	NA	<1	0.69 J	<1	<1	**3**	<1	**3.2**	<1	<3	NA	NA	NA
DW-6D	02/12/15	5.65	<20	<1	NA	0.45 J	<1	<1	<1	**1.8**	<1	3	0.4 J	<3	NA	NA	NA
MW-1	06/12/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-1	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-1	05/20/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-2	06/12/11	1.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**1.7**	BDL	BDL	BDL	NA	21.3	NA	75
MW-2	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-2	05/19/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-3	06/12/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	14	NA	NA
MW-3	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-3	05/20/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-4	06/12/11	13.3	BDL	BDL	BDL	13.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	1	BDL	35
MW-4	07/28/11	16	BDL	BDL	BDL	16	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-4	05/20/14	8.4	<25	<1	<2	8.4	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-5	06/12/11	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1	BDL	NA	26	BDL	72
MW-5	07/28/11	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1	BDL	NA	BDL	NA	NA
MW-5	05/20/14	0.47	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	0.47 J	NA	NA	NA
MW-6	07/12/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	11	BDL	85
MW-6	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
MW-6	05/19/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-7	07/28/11	2987	BDL	BDL	BDL	BDL	14	BDL	BDL	**73**	BDL	**2900**	BDL	NA	15	**1200**	91
MW-7	08/12/11	2509.3	BDL	BDL	BDL	3.6	60.5	BDL	BDL	**92.9**	BDL	**2350**	2.3	NA	BDL	**1200**	NA
MW-7	05/22/14	3190.12	<1300	<50	<100	<50	59.6	<50	<50	**99.7**	<50	**3030**	<100	0.82 J	NA	NA	NA
MW-7 (DUP-2)	05/22/14	3126.21	<1300	<50	<100	<50	55.8	<50	<50	**98.7**	10.9 J	**2960**	<100	0.81 J	NA	NA	NA

TABLE 5. SUMMARY OF HISTORICAL GROUNDWATER RESULTS FOR VOCs, SVOCs & TPH - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Date	VOCs - Method 5035A/8260B (µg/L)													SVOCs-8270	TPH 8015 & 3546 DRO	
		Total VOCs	Acetone	Bromodichloromethane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl Tert Butyl Ether	Tetrachloroethylene	Toluene	Trichloroethylene	Xylene (total)	1,4-Dioxane	Total SVOCs	Gasoline Range - GRO (C5 to C9) *	Diesel Range - DRO (C9 to C18)*
NC 2L Groundwater		**NE**	**6000**	**0.6**	**700**	**70**	**70**	**600**	**20**	**0.7**	**600**	**3**	**500**	**3**	Varies	400	700
MW-8	08/12/11	155.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.5	**154**	BDL	NA	BDL	NA	NA
MW-8	05/21/14	94.37	<25	<1	0.5 J	0.35 J	0.49 J	<1	<1	**0.73 J**	<1	**92.3**	<2	<1	NA	NA	NA
MW-9	08/12/11	1615.9	BDL	BDL	BDL	1.4	16	BDL	BDL	**36**	BDL	**1560**	2.5	NA	BDL	NA	NA
MW-9	05/21/14	2007.09	<50	<2	<4	1.2 J	14.7	<2	<2	**39.7**	<2	**1950**	0.97 J	0.52 J	NA	NA	NA
MW-10	11/13/12	33.4	27.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**5.5**	BDL	NA	BDL	NA	NA
MW-10	05/20/14	10.7	<25	<1	<2	<1	<1	<1	<1	<1	<1	**9.5**	0.76 J	0.44 J	NA	NA	NA
DUP-1	05/20/14	9.89	<25	<1	<2	<1	<1	<1	<1	<1	<1	**9.5**	<2	0.39 J	NA		
MW-11	09/12/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-11	05/21/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-12	09/12/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-12	05/20/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-13	09/12/11	BDL	NA	NA		NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
MW-13	05/19/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-14	02/18/13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-14	05/21/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-15	02/18/13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-15	05/21/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
MW-16	02/18/13	17.8	BDL	BDL	BDL	BDL	BDL	1.3	BDL BD	BDL	6.5	BDL	10	NA	NA	NA	NA
MW-16	03/13/13	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-16	05/21/14	BDL	<25	<1	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	NA	NA	NA
GP-1	07/20/11	1154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**54**	BDL	**1100**	BDL	NA	BDL	**670**	120
GP-2	07/12/11	1274.2	BDL	BDL	BDL	2.6	BDL	BDL	BDL	**81.6**	BDL	**1190**	BDL	NA	1.4	**670**	120
GP-2	07/21/11	1458	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**58**	BDL	**1400**	BDL	NA	BDL	**610**	NA
GP-2	05/22/14	1550.93	<50	<2	<4	3.3	1.5 J	<2	<2	**75.7**	<2	**1470**	<4	0.43 J	NA	NA	NA
GP-3	07/21/11	615	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**25**	BDL	**590**	BDL	NA	5.1	330	12
GP-4	07/22/11	336.4	BDL	BDL	BDL	5.4	BDL	BDL	BDL	**11**	BDL	**320**	BDL	NA	1.6	NA	NA
GP-5	07/22/11	888.1	BDL	**2.1**	BDL	BDL	BDL	BDL	BDL	**26**	BDL	**860**	BDL	NA	1.7	NA	NA
GP-6	07/19/11	225.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**5.6**	BDL	**220**	BDL	NA	BDL	NA	NA
GP-7	07/22/11	280	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**30**	BDL	**250**	BDL	NA	BDL	NA	9.6
GP-8	07/22/11	315	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**45**	BDL	**270**	BDL	NA	BDL	95	16
GP-9	07/22/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL	12
GP-10	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
GP-11	07/28/11	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA	NA
GP-45-41	05/08/14	2.32	<25	<1	<2	<1	<1	<1	<1	<1	0.32 J	2	<2	<1	NA	NA	NA
GP-46-39.5	05/08/14	5	<25	<1	<2	0.62 J	<1	<1	<1	<1	0.28 J	**4.1**	<2	<1	NA	NA	NA
GP-47-39	05/08/14	9.82	<25	<1	<2	1.1	<1	<1	0.47 J	<1	0.25 J	**8**	<2	<1	NA	NA	NA
GP-48-43	05/08/14	4.65	<25	<1	0.33 J	4.1	<1	<1	<1	<1	0.22 J	<1	<2	<1	NA	NA	NA
GP-50-48	05/08/14	55.59	<25	<1	<2	1.3	<1	<1	<1	<1	0.49 J	**53.8**	<2	<1	NA	NA	NA

Notes:
Only detected compounds are listed. µg/L = micrograms per liter
Groundwater criteria are NC2L Standards
BDL: Below Laboratory Detection Limit; NA: Not Analyzed; NE: Not Established
VOCs: Volatile organic compounds; SVOCs: Semi-Volatile organic compounds; TPH: Total Petroleum Hydrocarbons
Highlighted values exceed NC2L Standards

TABLE 6. SUMMARY OF HISTORICAL GROUNDWATER RESULTS FOR METALS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Date	Metals - EPA Method 6010 (µg/L)															
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
NC 2L Groundwater		**1 ***	**10**	**700**	**4 ***	**2**	**10**		**1000**	**15**	**50**	**1**	**100**	**20**	**20**	**0.2 ***	**1000**
DW-1	11/13/12	BDL	BDL	NA	BDL	BDL	**12.4**	NA	BDL	BDL	7.1	BDL	6.5	BDL	BDL	BDL	BDL
DW-1 (Dup)	11/13/12	BDL	BDL	NA	BDL	BDL	**22.4**	NA	BDL	BDL	6.7	BDL	12.4	BDL	BDL	BDL	BDL
DW-2	02/20/13	BDL	BDL	NA	BDL	BDL	**23.6**	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	24.2
DW-2 (Dup)	02/20/13	BDL	BDL	NA	BDL	BDL	**23.8**	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DW-2	03/13/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DW-2 (Dup)	03/13/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	07/28/11	NA	BDL	97	NA	BDL	BDL	NA	NA	6.7	NA	BDL	NA	BDL	BDL	NA	NA
MW-1	11/06/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	05/20/14	<6	NA	NA	<4	NA	NA	NA	4.9 B	NA	**117**	NA	1.4 B	NA	NA	<10	22.3
MW-2	07/28/11	NA	BDL	38	NA	BDL	BDL	NA	NA	5	NA	BDL	NA	BDL	BDL	NA	NA
MW-2	11/06/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	07/28/11	NA	BDL	27	NA	BDL	BDL	NA	NA	7.4	NA	BDL	NA	BDL	BDL	NA	NA
MW-3	11/06/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	07/28/11	NA	BDL	38	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
MW-4	11/06/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	07/28/11	NA	BDL	52	NA	BDL	BDL	BDL	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
MW-5	11/06/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	05/20/14	<6	NA	NA	<4	NA	NA	NA	6.6 B	NA	45	NA	4.7 B	NA	NA	<10	33.3
MW-6	07/28/11	NA	BDL	67	NA	BDL	BDL	NA	NA	**84**	NA	BDL	NA	BDL	BDL	NA	NA
MW-6	11/07/12	BDL	BDL	NA	BDL	BDL	BDL	NA	BDL	BDL	17.3	BDL	BDL	BDL	BDL	BDL	BDL
MW-7	07/28/11	NA	BDL	53	NA	BDL	BDL	NA	NA	6.3	NA	BDL	NA	BDL	BDL	NA	NA
MW-7	11/08/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	11/08/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9	11/08/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-10	11/13/12	BDL	BDL	NA	BDL	BDL	BDL	NA	BDL	BDL	**54.1**	BDL	BDL	BDL	BDL	BDL	BDL
MW-10	05/20/14	<6	NA	NA	<4	NA	NA	NA	3.7 B	NA	24.1	NA	3.2 B	NA	NA	<10	26.9
MW-11	11/09/12	BDL	BDL	NA	BDL	BDL	BDL	NA	18.1	BDL	**73**	BDL	BDL	BDL	BDL	BDL	24.6
MW-12	11/09/12	BDL	BDL	NA	BDL	BDL	BDL	NA	7.6	BDL	**103**	BDL	BDL	BDL	BDL	BDL	10.2
MW-13	11/09/12	BDL	BDL	NA	BDL	BDL	BDL	NA	BDL	BDL	18.1	BDL	BDL	BDL	BDL	BDL	BDL
MW-14	02/18/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	02/18/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 6. SUMMARY OF HISTORICAL GROUNDWATER RESULTS FOR METALS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Date	Metals - EPA Method 6010 (µg/L)															
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
NC 2L Groundwater		**1 ***	**10**	**700**	**4 ***	**2**	**10**		**1000**	**15**	**50**	**1**	**100**	**20**	**20**	**0.2 ***	**1000**
MW-16	02/18/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-16	03/13/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-1	07/20/11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-2	07/21/11	NA	BDL	83	NA	BDL	BDL	NA	NA	7.5	NA	BDL	NA	BDL	BDL	NA	31
GP-2	11/07/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP-2	05/22/14	<120	NA	NA	<80	NA	NA	NA	**1410**	NA	**8610**	NA	**422 B**	NA	NA	<200	983
GP-3	07/21/11	NA	BDL	60	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-4	07/22/11	NA	BDL	23	NA	**18**	BDL	NA	NA	5.1	NA	BDL	NA	BDL	BDL	NA	NA
GP-5	07/22/11	NA	BDL	38	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-6	07/19/11	NA	BDL	21	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	BDL
GP-7	07/22/11	NA	BDL	59	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-8	07/22/11	NA	BDL	48	NA	**15**	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-9	07/22/11	NA	BDL	36	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-10	07/28/11	NA	BDL	44	NA	BDL	BDL	NA	NA	BDL	NA	BDL	NA	BDL	BDL	NA	NA
GP-11	07/28/11	NA	BDL	88	NA	BDL	BDL	NA	NA	**81**	NA	BDL	NA	BDL	BDL	NA	NA

Notes:
Groundwater criteria are NC2L Standards (15A NCAC 02L .0202 Groundwater Standards, effective April 1, 2013) or Interm Maximum Allowable Concentrations (IMACs); IMACs denoted by *
BDL: Below Laboratory Detection Limit; NA: Not Analyzed; NE: Not Established
µg/L = micrograms per liter
Highlighted values exceed NC2L Standards

TABLE 7. SUMMARY OF NATURAL ATTENUATION PARAMETERS (MAY 2014) - ECI ELON FACILITY - ELON, NORTH CAROLINA

Monitoring Well ID	Sample Date	Nitrogen, Nitrate mg/l	Nitrogen, Nitrite mg/l	Sulfate mg/l	Total Organic Carbon mg/l	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/l)	Temperature (˚C)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
Ideal Requirements for Natural Attenuation		<1	<1	<20	>20	5 to 9	(Purge Stabilization Parameter)	<1	>20 (Microbial Activity Slows at Lower Temperatures	<50	(Purge Stabilization Parameter)
DW-1	05/21/14	0.15	<0.1	8	0.4 B	6.43	157	1.21	22.00	41	11
DW-1	10/16/14	NA	NA	NA	NA	6.75	127	2.99	19.45	148	3
DW-1	12/08/14	NA	NA	NA	NA	7.36	119	2.51	17.04	65.3	NM
DW-1	12/10/14	NA	NA	NA	NA	6.48	123	4.24	17.38	244.9	NM
DW-2	05/19/14	NA	NA	NA	NA	6.81	168	1.87	21.00	50	9
DW-2	10/16/14	NA	NA	NA	NA	9.27	139	1.21	17.85	138	4
DW-2D	10/16/14	NA	NA	NA	NA	9.20	306	0.80	17.73	139	8
DW-3	05/21/14	0.79	<0.1	25.8	1.4	7.53	243.9	2.39	20.20	36.3	8.32
DW-4	05/21/14	0.56	<0.1	51.8	2	8.48	391	4.72	20.70	83	41
DW-4	10/16/14	NA	NA	NA	NA	6.13	108	1.59	17.70	148	185
DW-5	05/21/14	0.25	<0.1	31.7	0.71 B	6.51	207	5.12	24.10	149	95
MW-1	05/20/14	0.34	<0.1	1 B	0.23 B	4.51	47.3	2.31	16.70	269.4	2.07
MW-2	05/19/14	NA	NA	NA	NA	4.87	60	5.22	19.50	130	3
MW-3	05/20/14	0.11	<0.1	1.1 B	<1	4.74	57	5.53	19.90	141	222
MW-4	05/20/14	0.17	<0.1	11.3	0.31 B	6.31	152.9	5.78	18.70	188.8	0.96
MW-5	05/20/14	NA	NA	NA	NA	4.79	53.1	4.55	20.30	245.5	1.27
MW-6	05/19/14	NA	NA	NA	NA	5.15	53.4	4.83	17.80	206.7	3.28
MW-7	05/22/14	0.25	<0.1	0.67 B	<1	5.18	41.1	0.55	22.30	179.1	47.8
MW-7	12/08/14	NA	NA	NA	NA	5.29	41	1.8	17.83	115.2	NM
MW-7	12/10/14	NA	NA	NA	NA	5.04	41	4.44	17.79	269.7	NM
MW-8	05/21/14	1.4	<0.1	0.97 B	<1	4.41	44.9	0.93	21.60	223.2	22
MW-9	05/21/14	0.34	<0.1	0.86 B	0.24 B	4.55	38	0.59	19.20	176	>999
MW-10	05/20/14	0.78	<0.1	<2	0.28 B	5.11	56	3.75	21.90	153	60
MW-11	05/21/14	NA	NA	NA	NA	5.48	85.2	3.54	19.30	207.1	2.89
MW-12	05/20/14	NA	NA	NA	NA	5.58	68	4.09	21.90	200.4	1.93
MW-13	05/19/14	NA	NA	NA	NA	5.16	41.9	4.81	17.80	199.6	5.97
MW-14	05/21/14	NA	NA	NA	NA	5.23	42	6.37	13.50	18.2	34
MW-15	05/21/14	NA	NA	NA	NA	4.96	26	4.92	13.90	175	59
MW-16	05/21/14	<0.1	<0.1	<2	0.49 B	6.70	110.1	0.8	16.70	-99.3	65.9
AS-1	12/08/14	NA	NA	NA	NA	11.59	985	4.33	18.17	-54.9	NM
AS-1	12/10/14	NA	NA	NA	NA	6.52	128	9.12	17.51	240.1	NM
OB-1B	12/08/14	NA	NA	NA	NA	5.93	102	5.9	17.64	175	NM
OB-1B	12/10/14	NA	NA	NA	NA	6.02	90	7.83	17.84	240.3	NM
OB-2B	12/08/14	NA	NA	NA	NA	6.20	103	7.71	17.58	160.4	NM
OB-2B	12/10/14	NA	NA	NA	NA	6.15	105	6.78	17.40	240.4	NM
GP-2	05/22/14	0.99	<0.1	1.3 B	0.4 B	4.97	130.1	3.63	20.60	209.6	>1000

Notes:
NA = Not applicable
Highlighted values indicate Ideal Requirements for Natural Attenuation
mg/l = milligrams per liter
mS/cm = milliSiemens per centimeter
mV = millivolts
NTU = Nephelometric turbidity unit

TABLE 8. SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS (SVOCS) - ECI ELON FACILITY - ELON, NORTH CAROLINA

Reported SVOCs TICs - Method 8270C/8270D	Number of Detections in Groundwater	Maximum Concentration	Number of Detections in Soil	Maximum Concentration	Retained?	Rationale
	µg/L		mg/kg			
1,1,2,2-tetrachloroethane	1	11.7	0	--	Yes	Already included in VOC analysis
1-Methyl-2-propylcyclohexane	1	15.3	0	--	No	Detected in only one sample
Trichloroethylene	2	15.7	0	--	Yes	Already included in VOC analysis
Tetrachloroethylene	1	11.4	0	--	Yes	Already included in VOC analysis
4-hydroxy-4-methyl-2-pentanone	1	11.4	2	4400	No	also known as Diacetone alcohol, readily biodigradable and not potentially bioaccumulable, therefore not classified as dangerous for the environment.
Unknown #1 (Retention Time = 3.649)	1	6.28	0	--	No	Unknown Detection
Unknown #2 (Retention Time = 4.939)	1	38.4	0	--	No	Unknown Detection
Unknown #3 (Retention Time = 4.975)	1	6.36	0	--	No	Unknown Detection
Unknown #4 (Retention Time = 5.324)	1	35.7	0	--	No	Unknown Detection
Unknown #5 (Retention Time = 6.293)	3	24.6	0	--	No	Unknown Detection
Unknown #6 (Retention Time = 6.554)	2	12.1	0	--	No	Unknown Detection
Unknown #7 (Retention Time = 6.585)	1	8.34	0	--	No	Unknown Detection
Unknown #8 (Retention Time = 13.126)	1	8.42	0	--	No	Unknown Detection
Unknown #9 (Retention Time = 21.573)	1	145	0	--	No	Unknown Detection
Unknown #10 (Retention Time = 6.411)	1	8.86	0	--	No	Unknown Detection
Unknown #11 (Retention Time = 6.408)	1	9.32	0	--	No	Unknown Detection
Unknown #12 (Retention Time = 6.551)	1	13.8	0	--	No	Unknown Detection

Notes:
(µg/L) = micrograms per liter
(mg/kg) = miligrams per kilogram
Only detected compounds are listed.

TABLE 9. SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS (VOCS) - ECI ELON FACILITY - ELON, NORTH CAROLINA

Reported VOC TICs - Method 5035A/8260B (Estimated Concentrations)	Number of Detections in Groundwater	Maximum Concentration	Number of Detections in Soil	Detected in Soil and GW	Maximum Concentration	Retained?	Rationale
	µg/L						
Carbon Dioxide	13	730000	4	Yes	1.14	No	Atmospheric gas; not a VOC
Ethanethioamide	1	32	0	No	--	No	Detected in only one sample
2-(ethyloxy)-ethanol	1	36	0	No	--	No	Detected in only one sample
Methyl silane	1	29	0	No	--	No	Detected in only one sample
(Trimethylsilyl)acetic acid	1	38	0	No	--	No	Detected in only one sample
Bromoethylmethyl sulfide	1	44	0	No	--	No	Detected in only one sample
1,2,3,4,7,8-Hexahydroazocine	1	29	0	No	--	No	Detected in only one sample
Dimethylaminomethyleneamino-4-methyl	1	27	0	No	--	No	Detected in only one sample
4-Penten-2-ol	1	88	0	No	--	No	Detected in only one sample
Formamide	1	140	0	No	--	No	Detected in only one sample
Acetone	**1**	**56**	**0**	No	**--**	**Yes**	**Already included in VOC analysis**
1-Propyne	1	49	0	No	--	No	Detected in only one sample
1-Butene	1	97	0	No	--	No	Detected in only one sample
Butane	1	32	0	No	--	No	Detected in only one sample
Ethylcyclopropane	1	33	0	No	--	No	Detected in only one sample
Formic acid, 1-methylethyl ester	1	88	0	No	--	No	Detected in only one sample
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1a`,3aa',4a`,8aa')]-	0	--	1	No	8.08	No	Detected in only one sample
Thujopsene	0	--	1	No	1.32	No	Detected in only one sample
1,4-Methano-1H-indene, octahydro-4-methyl-8-methylene-7-(1-methylethyl)-, [1S-(1α,3aβ,4α,7α,7aβ)]-	0	--	1	No	0.637	No	Detected in only one sample
1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-, [3R-(3α,3aβ,7β,8aα)]-	0	--	1	No	0.513	No	Detected in only one sample
Cyclotrisiloxane, hexamethyl	0	--	117	No	31.9	No	Cosmetic/perfume ingredient; anthropogenic
Cyclotetrasiloxane, octamethyl	0	--	64	No	41.7	No	Cosmetic/perfume ingredient; anthropogenic
Tetrasiloxane, decamethyl-	0	--	1	No	8.8	No	Detected in only one sample
Unknown Organic Acid	0	--	8	No	9.32	No	Unidentified/Unknown
Unknown Alkane #1 (Retention Time = 1.089)	0	--	1	No	6.56	No	Detected in only one sample
Unknown Alkane #2 (Retention Time = 4.522)	0	--	1	No	6.28	No	Detected in only one sample
Unknown Alkane #3 (Retention Time = 4.528)	0	--	1	No	9.43	No	Detected in only one sample
Unknown Alkane #4 (Retention Time = 0.917)	0	--	1	No	7.35	No	Detected in only one sample
Unknown Alkane #5 (Retention Time = 1.874)	2	8.25	0	No	--	No	Unidentified/Unknown
Hexanal	0	--	9	No	18.2	No	Cosmetic/perfume ingredient; anthropogenic
Heptanal	0	--	1	No	45.2	No	Detected in only one sample
Octanal	0	--	33	No	80.8	No	Cosmetic/perfume ingredient; anthropogenic
Nonanal	1	8.62	37	No	47.5	No	Cosmetic/perfume ingredient; anthropogenic
Decanal	0	--	2	No	7.3	No	Rare detection not indicative of release
1,2-dichloro-1,1,2-ethane	0	--	1	No	8.14	No	Detected in only one sample
Cyclobutane, methyl-	0	--	3	No	36.4	No	Rare detection not indicative of release
Pentane, 2,3,3-trimethyl-	0	--	2	No	11.6	No	Rare detection not indicative of release
5-Bromo-2-chlorobenzoic acid	0	--	1	No	6.59	No	Detected in only one sample
4-(Dimethylamino)-3,5-dinitro-N-(4-phenoxy-phenyl)benz-amide	0	--	3	No	111	No	Rare detection not indicative of release
Cyclopentane	0	--	9	No	10.8	No	Refrigerant; lab contaminant
Benzoic acid,2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	0	--	5	No	6.85	No	Skin conditioner; anthropogenic source
7-Methyl-7H-dibenzo[b,g]carbazole	0	--	2	No	22.6	No	Rare detection not indicative of release
N-[(Pentafluorophenyl)-methylene]-β,4-bis[(trimethylsilyl)oxy]benzeneethanamine	0	--	2	No	5.45	No	Rare detection not indicative of release
1,1-Difluoroethane	0	--	10	No	15.4	No	Refrigerant; lab contaminant
Octane	0	--	1	No	5.41	No	Detected in only one sample
Unknown #1 (Retention Time = 9.280)	0	--	2	No	7.8	No	Unidentified/Unknown
Unknown #2 (Retention Time = 7.975)	0	--	12	No	21.6	No	Unidentified/Unknown
Unknown #3 (Retention Time = 1.092)	0	--	1	No	5.63	No	Detected in only one sample
Unknown #4 (Retention Time = 0.785)	0	--	1	No	136	No	Detected in only one sample
Unknown #5 (Retention Time = 0.793)	0	--	1	No	626	No	Detected in only one sample
Unknown #5 (Retention Time = 1.068)	0	--	1	No	14.5	No	Detected in only one sample
alpha.-Methylstyrene	0	--	3	No	32	No	Rare detection not indicative of release
3-[(E)-2-({4-[(4-chlorophenyl)methoxy]-3-methoxy-phenyl}methylidene)hydrazin-1-yl]-5-methyl-1,2,4-triazol-4-amine	0	--	1	No	12.1	No	Detected in only one sample
Acetaldehyde	1	25	5	Yes	32	No	Rare detection not indicative of release
1-Pentene	0	--	2	No	29.2	No	Rare detection not indicative of release
Camphor	0	--	2	No	7.08	No	Rare detection not indicative of release
2,2,3,3,4,4,4-Heptafluoro-N-[2-(trimethylsilyloxy)-2-[4-(trimethylsilyloxy)phenyl]ethyl]butanamide	0	--	1	No	5.68	No	Detected in only one sample
4-Hydroxymandelic acid, ethyl ester, di-TMS	0	--	2	No	7.55	No	Lab contaminant
3-Hydroxymandelic acid, ethyl ester, di-TMS	0	--	7	No	12.4	No	Lab contaminant
Unknown Amine (Retention Tiime = 8.570)	0	--	1	No	10.5	No	Detected in only one sample
1-Hexanol, 2-ethyl-	0	--	4	No	32	No	Rare detection not indicative of release
Methane, diiodo-	0	--	3	No	9.96	No	Rare detection not indicative of release
Unknown Amine	0	--	2	No	5.62	No	Unidentified/Unknown
1-Iodo-heptane	0	--	3	No	9.2	No	Rare detection not indicative of release
1-Iodo-octane	0	--	4	No	7.55	No	Rare detection not indicative of release
1,2,4,5-Tetrazine, 3-(4-chlorophenyl)-6-(1-pyrrolidinyl)-	0	--	1	No	107	No	Detected in only one sample

Notes:
(µg/L) = micrograms per liter
(mg/kg) = miligrams per kilogram
Only detected compounds are listed.

TABLE 10. SUMMARY OF SOIL QA/QC SAMPLE RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLIN/

Sample ID	Date	Lab Name	QA/QC Sample Description	VOCs - Method 5035A/8260B (µg/l)							Metals - Method 6010B/7471 (mg/l)															
				Acetone	Chloroform	cis-1,2-Dichloroethylene	Methyl ethyl ketone	Tetrachloroethylene	Trichloroethylene	1,4-Dioxane	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium VI	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Bias Analysis		**Data is considered VALID.**																								
RB-1	05/07/14	Accutest	Rinse Blank	<25	<1	<1	<5	<1	<1	<200	<6	NA	NA	<4	NA	NA	NA	4.7 B	NA	2 B	NA	<40	NA	NA	<10	13 B
TRIP BLANK-2	05/06/14	Accutest	Trip Blank	<25	<1	<1	<5	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRIP BLANK-3	05/08/14	Accutest	Trip Blank	<25	<1	<1	<5	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Laboratory QA/QC Exceptions:

Job Number FA14744: (a) Elevated reporting limit(s) due to matrix interference.
(b) Elevated reporting limit(s) due to matrix interference. Manually elevated.

Job Number FA14869: (a) Elevated reporting limit(s) due to matrix interference.

Job Number FA14906: No exceptions noted on the Lab Report

Field QA/QC:

Review of the results of the trip, field, and equipment blank sample analyses indicate no sources of error from the sample collection, handling, and preservation procedures.

Completeness Analysis **Data is considered VALID.**

Review of the dataset for this project indicate that an adequate number of monitoring locations exist to define and monitor the plume. Samples were collected from all active monitoring points containing sufficient groundwater to allow sample collection.

Comparability Analysis **Data is considered VALID.**

Review of the dataset for this project indicate that results for each sample were analyzed using the same methods and are presented using consistent units.

				VOCs - Method 5035A/8260B (µg/kg)							Metals - Method 6010B/7471 (mg/kg)															
Precision Analysis		**Data is considered VALID.**																								
GP-40-5-7	05/07/14	Accutest	Sample	24 J	2 J	13	<29	<5.9	157	<240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DUP-2	05/07/14	Accutest	Sample Duplicate	23 J	3.1 J	21	<31	<6.2	464	<250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dup-2 Analysis			*Calculated RPD*	*3%*	*43%*	*50%*	---	---	*99%*	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GP-41-5-7	05/07/14	Accutest	Sample	NA	NA	NA	NA	NA	NA	NA	<1.2	NA	NA	0.2 B	NA	NA	NA	22	NA	157	NA	3.7	NA	NA	<0.58	8
DUP-1	05/07/14	Accutest	Sample Duplicate	NA	NA	NA	NA	NA	NA	NA	<1.1	NA	NA	0.2 B	NA	NA	NA	18	NA	125	NA	3.1	NA	NA	<0.55	7.7
Dup-1 Analysis			*Calculated RPD*	---	---	---	---	---	---	---	---	---	---	*15%*	---	---	---	*20%*	---	*23%*	---	*18%*	---	---	---	*4%*

Calculated RPDs ≤20 are preferred. The data is considered valid.

Sensitivity Analysis **Data is considered VALID.**

The detection limits listed for each analyte are less than or equal to the respective applicable regulatory limit, unless dilution of samples was necessary.

Note:
RPD = Relative Percent Difference
NA = Not Analyzed

TABLE 11. SUMMARY OF GROUNDWATER QA/QC SAMPLE RESULTS - ECI ELON FACILITY - ELON, NORTH CAROLINA

Sample ID	Date	Lab Name	QA/QC Sample Description	VOCs - Method 5035A/8260B (µg/l)							Metals - Method 6010B/7471 (mg/l)					
				Acetone	Bromodichloromethane	Carbon disulfide	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl Tert Butyl Ether	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Xylene (total)	1,4-Dioxane
Bias Analysis		**Data is considered VALID.**														
RB-1	05/07/14	Accutest	Rinse Blank	<25	<1	<2	<1	<1	<1	<1	2.3 J	<1	0.37 J	<1	<2	<200
EB-1	05/22/14	Accutest	Equipment Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	0.3 J	<1	<2	<1
TRIP BLANK-2	05/06/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<2	NA
TRIP BLANK-3	05/08/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<2	NA
TRIP BLANK	05/19/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1
TRIP BLANK	05/21/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1
TRIP BLANK	05/22/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1
TRIP BLANK	06/12/14	Accutest	Trip Blank	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	<1	<3	NA
Trip Blank	10/16/14	Shealy	Trip Blank	<20	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	NA
TRIP BLANK	02/12/15	Shealy	Trip Blank	<20	<1	NA	<1	<1	<1	<1	NA	<1	<1	<1	<1	NA

Laboratory QA/QC Exceptions:

Accutest FA15149: (a) Associated BS recovery outside control limits.
(b) No TICs detected.
Accutest FA15824: (a) Associated BS recovery outside control limits.
Accutest FA14906: (a) No TICs detected.
Accutest FA15249: No Exceptions Noted
Accutest FA15195: (a) Associated BS recovery outside control limits.
(a) Field analysis required. Received out of hold time and analyzed by request.
(a) Associated BS recovery outside control limits.
Accutest FA15250: (a) Elevated reporting limit(s) due to matrix interference.
Accutest FA15824: (a) Associated BS recovery outside control limits.
Shealy PJ17072 No Exceptions Noted

Field QA/QC:

Review of the results of the trip, field, and equipment blank sample analyses indicate no sources of error from the sample collection, handling, and preservation procedures.

Completeness Analysis **Data is considered VALID.**

Review of the dataset for this project indicate that an adequate number of monitoring locations exist to define and monitor the plume. Samples were collected from all active monitoring points containing sufficient groundwater to allow sample collection.

Comparability Analysis **Data is considered VALID.**

Review of the dataset for this project indicate that results for each sample were analyzed using the same methods and are presented using consistent units.

				VOCs - Method 5035A/8260B (µg/l)							Metals - Method 6010B/7471 (mg/l)					
Precision Analysis		**Data is considered VALID.**														
MW-7	05/22/14	Shealy	Sample	<1300	<50	<100	<50	59.6	<50	<50	<250	99.7	<50	3030	<100	0.82 J
DUP-2	05/22/14	Shealy	Sample Duplicate	<1300	<50	<100	<50	55.8	<50	<50	<250	98.7	10.9 J	2960	<100	0.81 J
Dup-2 Analysis			*Calculated RPD*	---	---	---	---	*7%*	---	---	---	*1%*	---	*2%*	---	*1%*
MW-10	05/20/14	Shealy	Sample	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	9.5	0.76 J	0.44 J
DUP-1	05/20/14	Shealy	Sample Duplicate	<25	<1	<2	<1	<1	<1	<1	<5	<1	<1	9.5	<2	0.39 J
Dup-1 Analysis			*Calculated RPD*	---	---	---	---	---	---	---	---	---	---	*0%*	---	*12%*

Calculated RPDs ≤20 are preferred. The data is considered valid.

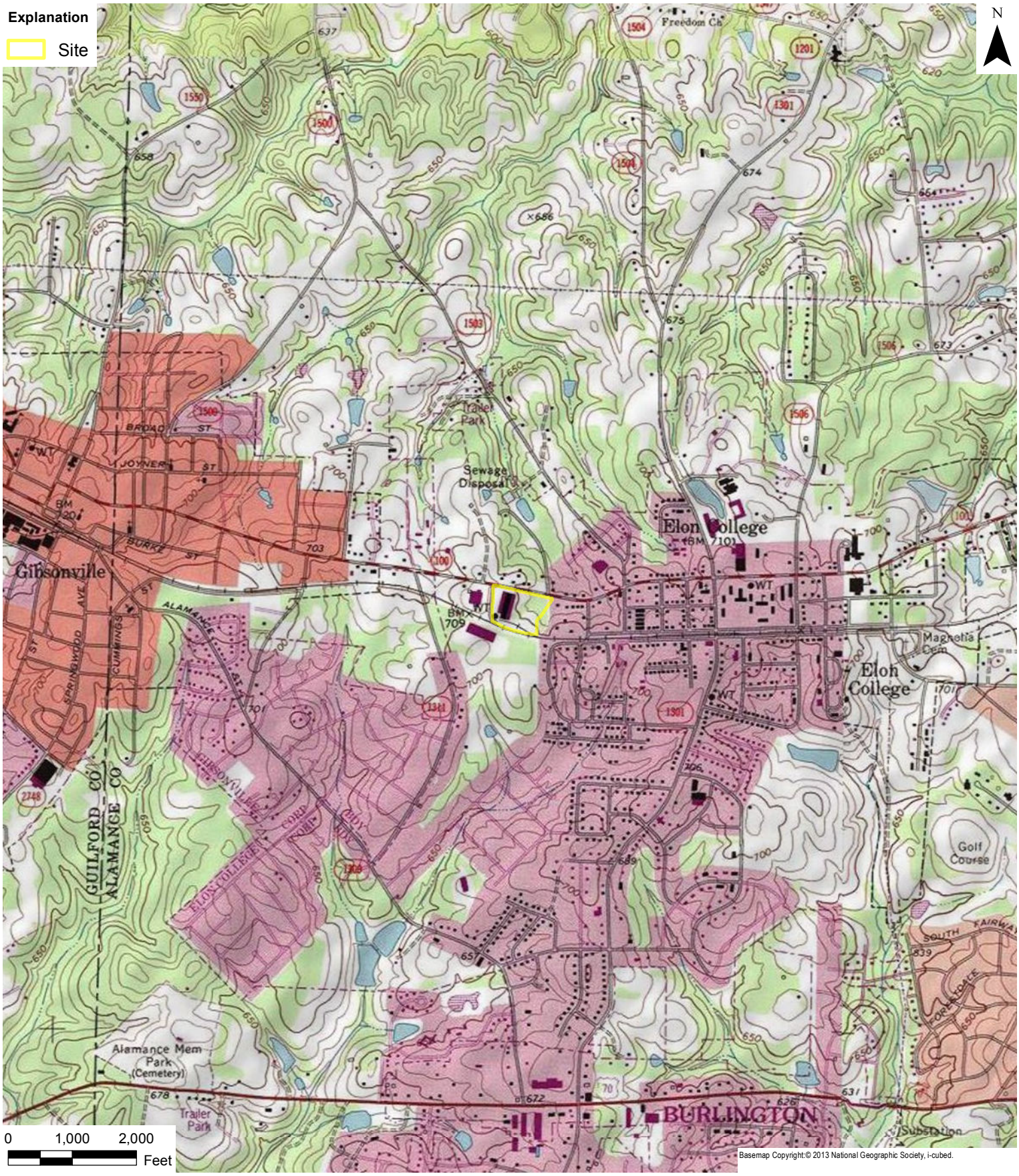
Sensitivity Analysis **Data is considered VALID.**

Detection Limits May-13 Shealy All Samples (Max detection limit)

The detection limits listed for each analyte are less than or equal to the respective applicable regulatory limit, unless dilution of samples was necessary.

Notes:
RPD = Relative Percent Difference
NA = Not Analyzed

FIGURES



ERM NC, Inc.

DATE: 8/13/2014	SCALE: AS SHOWN	DRAWN: A Freeman
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FIGURE 1
Site Location Map

Engineered Controls International, LLC.

100 Rego Drive

Elon, Alamance County, North Carolina

ERM NC, Inc.

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FIGURE 2
Site Map
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

Basemap NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board.

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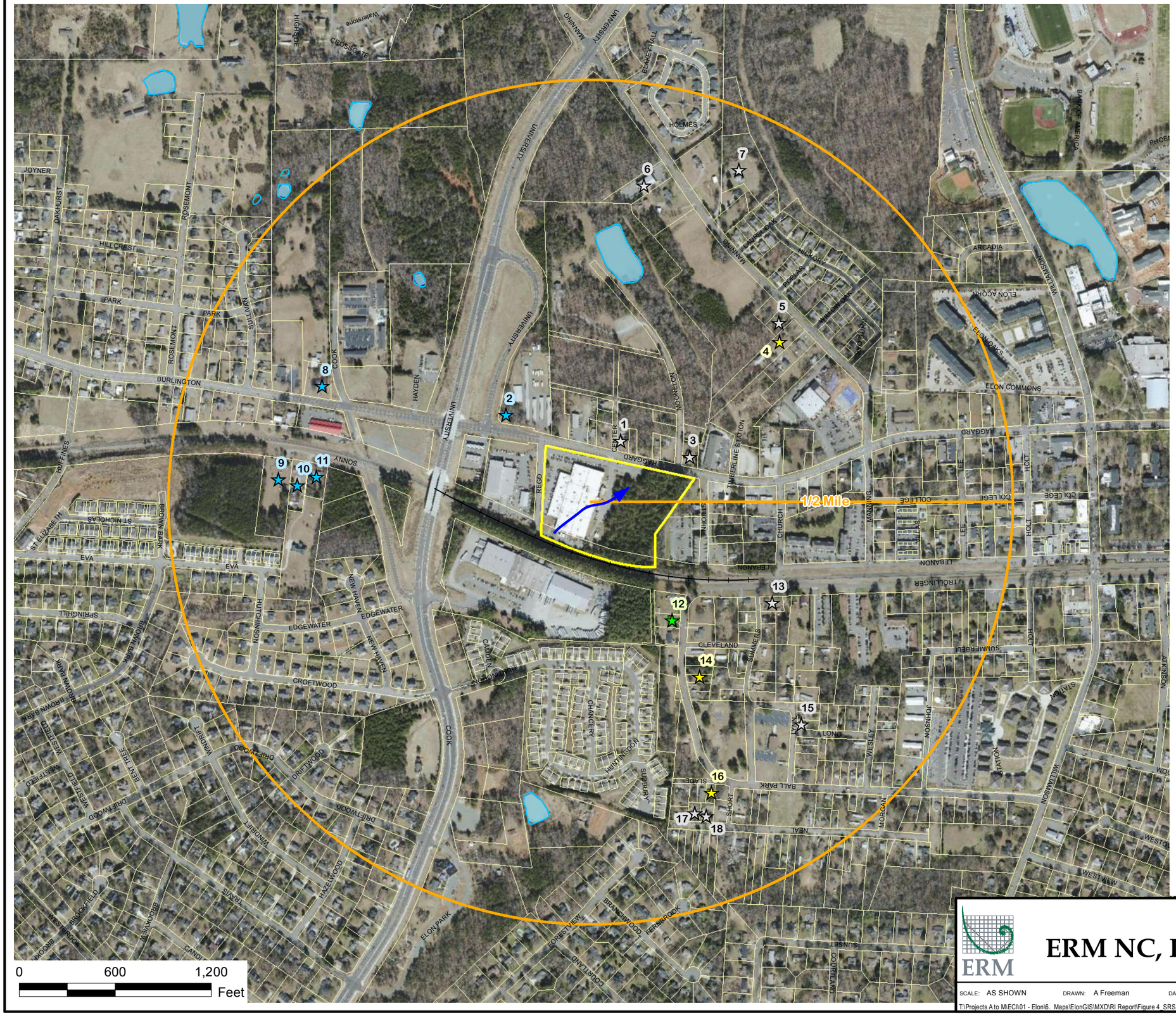
FIGURE 3
Adjacent Properties Map
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina



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Explanation

- Site
- Parcels
- 1/2 Mile Radius
- Groundwater Flow Direction
- Surface Water Features

Water Supply Well Survey

- Active Supply Well
- Inactive Well
- Irrigation Well
- Observed Well (Status Unknown)

Observed Supply Wells

Well ID	Address	Notes
1	606 W Haggard Ave, Elon	24" dug well, Status Confirmed
2	802 W Haggard Ave, ELon	Status Confirmed
3	516 W Haggard Ave, Elon	Status Confirmed
4	418 Manning Ave, Elon	Well Observed
5	420 Manning Ave, Elon	Shared by 420 & 422
6	456 Manning Ave, Elon	Status Confirmed
7	441 Manning Ave, Elon	Status Confirmed
8	962 Burlington Ave, Gibsonville	Status Confirmed
9	955 Sonny Ln, Elon	Well Observed
10	963 Sonny Ln, Elon	Shared by 963 & 963A
11	963 Sonny Ln, Elon	Well Observed
12	503 Ballpark Ave, Elon	Status Confirmed
13	602 Ballpark Ave, Elon	Well Observed
14	430 Ballpark Ave, Elon	Water Meter Observed
15	202 Lynn St, Elon	2 Wells Observed
16	103 Slade St, Elon	Water Meter Observed
17	304 Neal St, Elon	Well Observed
18	302 Neal St, Elon	Well Observed

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FIGURE 4
Sensitive Receptor Survey
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

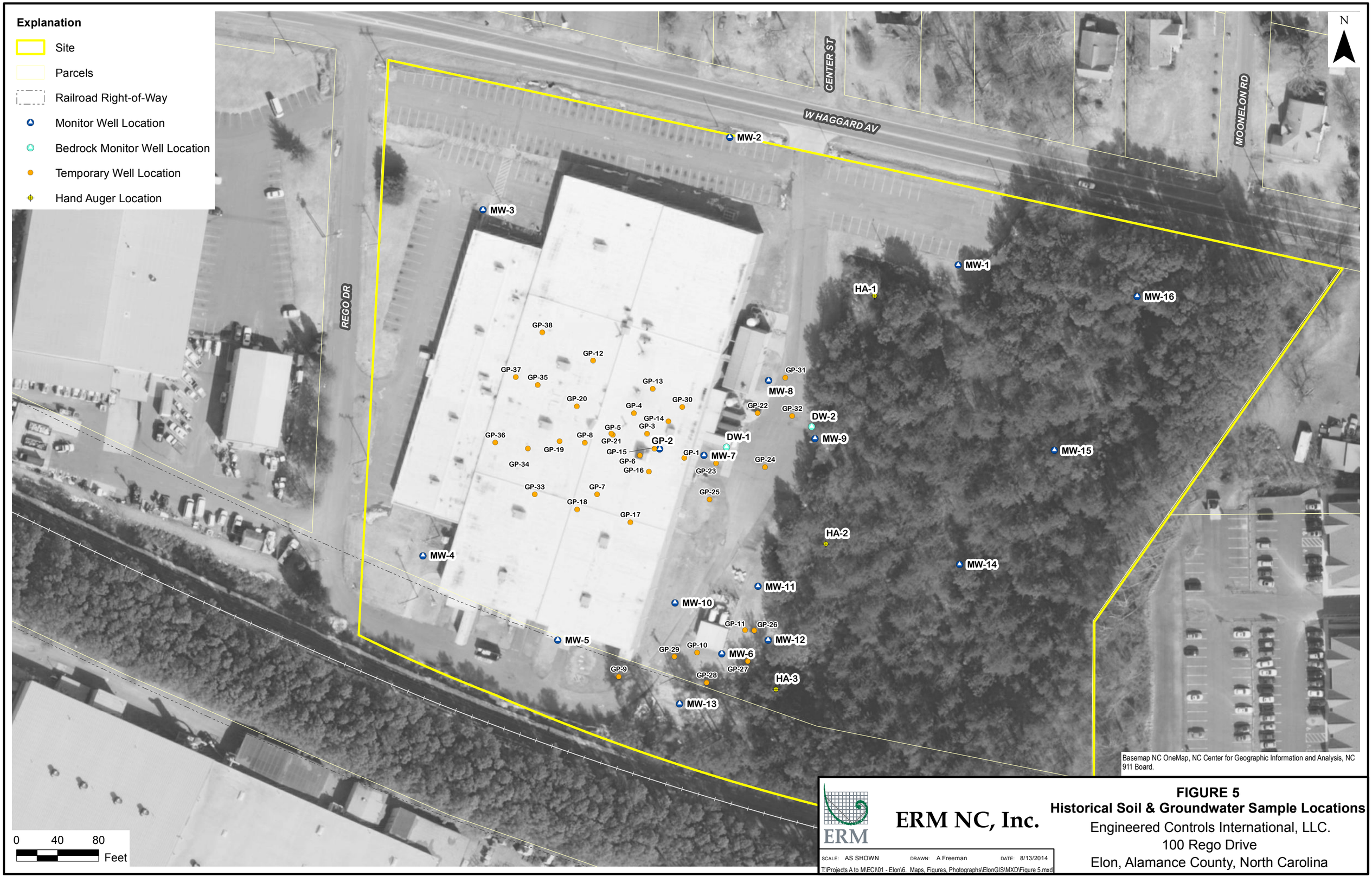

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FIGURE 5
Historical Soil & Groundwater Sample Locations
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

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FIGURE 6
Areas of Concern
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

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FIGURE 7
Soil Sample Locations
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

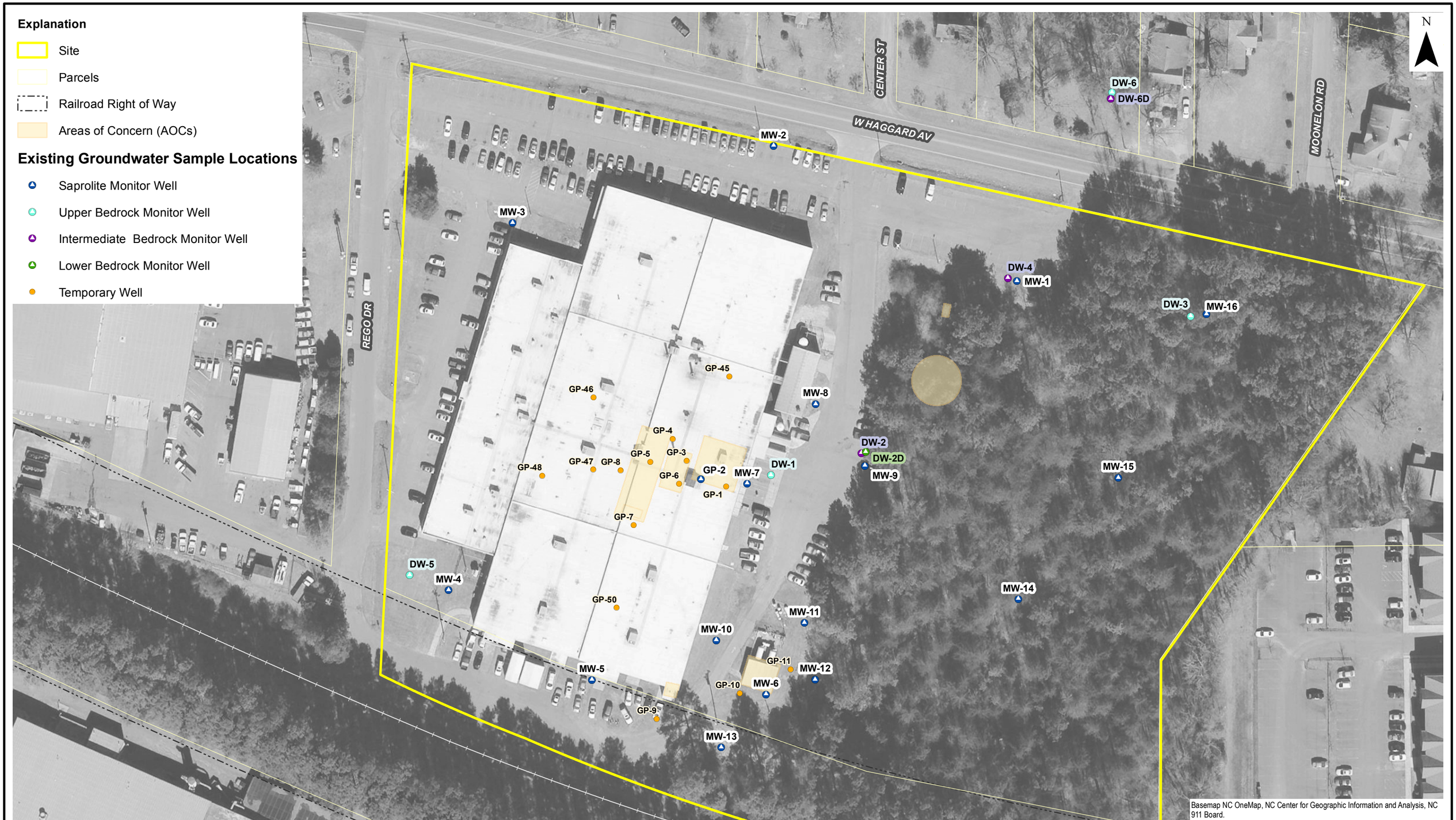

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FIGURE 8
Groundwater Sample Locations
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

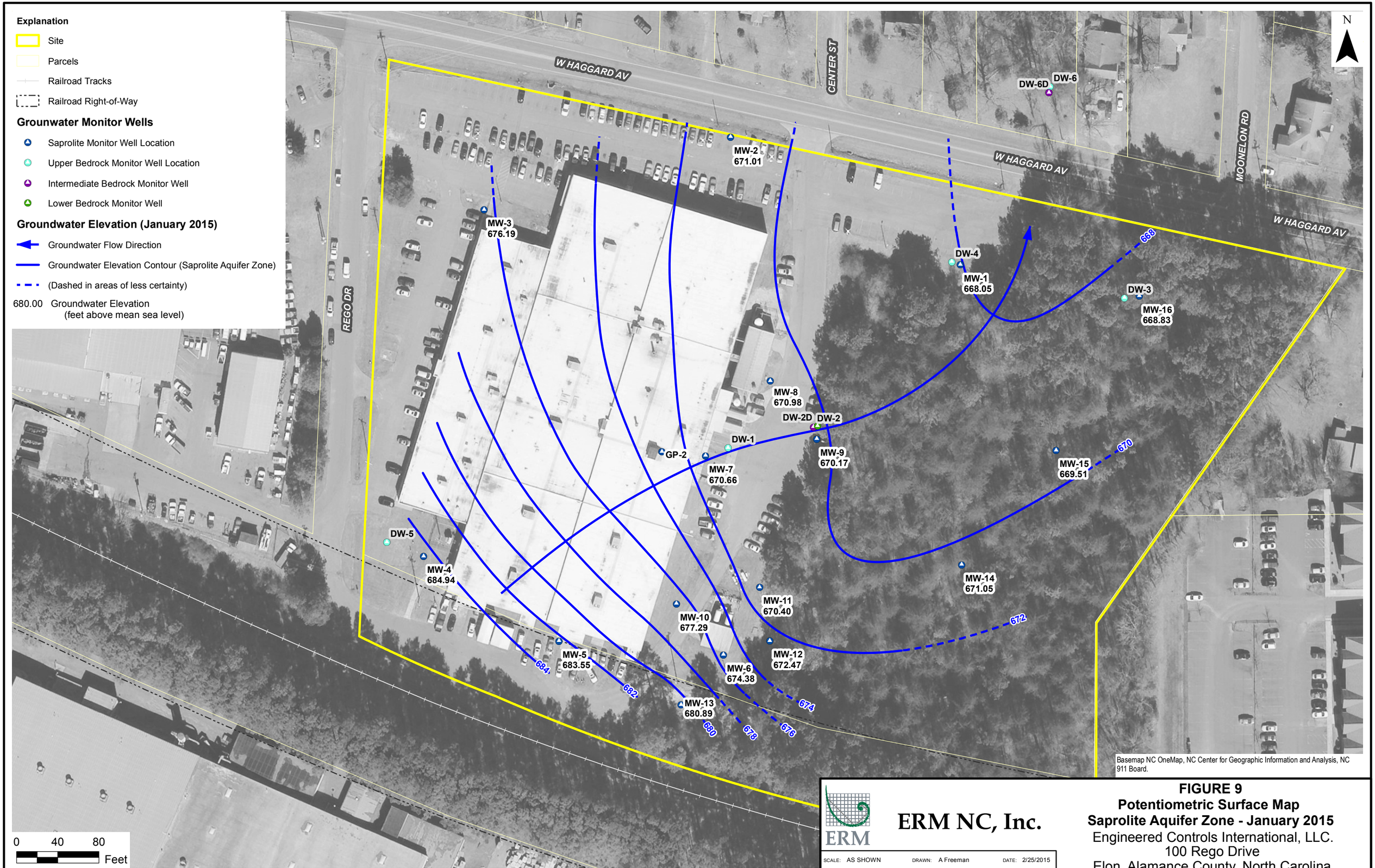

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FIGURE 9
Potentiometric Surface Map
Saprolite Aquifer Zone - January 2015
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

Basemap NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board.

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FIGURE 10
Potentiometric Surface Map
Upper Bedrock Aquifer Zone - January 2015
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

Explanation

Sample Type (Maximum TCE Result in µg/kg)

- Background Soil Sample Location
- Direct Push Soil Sample Location
- Hand Auger Soil Sample Location
- Monitor Well Soil Sample Location
- Lateral Extent of TCE above Site Specific SRG

Concentration of TCE in Soil (µg/kg)

- >1,800 µg/kg TCE
- >180 µg/kg TCE
- >18 µg/kg TCE

Trichloroethene (TCE) concentrations in micrograms per kilogram (µg/kg)

Vertical maximum concentration shown at each location

NA - Not Analyzed
BDL - Below Detection Limits

NC Protection of Groundwater Screening Threshold for TCE = 18 µg/kg

NC Delineation Standard for TCE = 880 µg/kg

Site Specific Soil Remediation Goal (SRG) for TCE = 6,600 µg/kg (6.6 mg/kg)

Basemap NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board.

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FIGURE 11
Soil Isoconcentration Map - TCE
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

ERM NC, Inc.

SCALE: AS SHOWN DRAWN: A Freeman DATE: 2/25/2015

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FIGURE 12
TCE Isoconcentration Contours
Saprolite Aquifer Zone – Most Recent 2014/2015
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

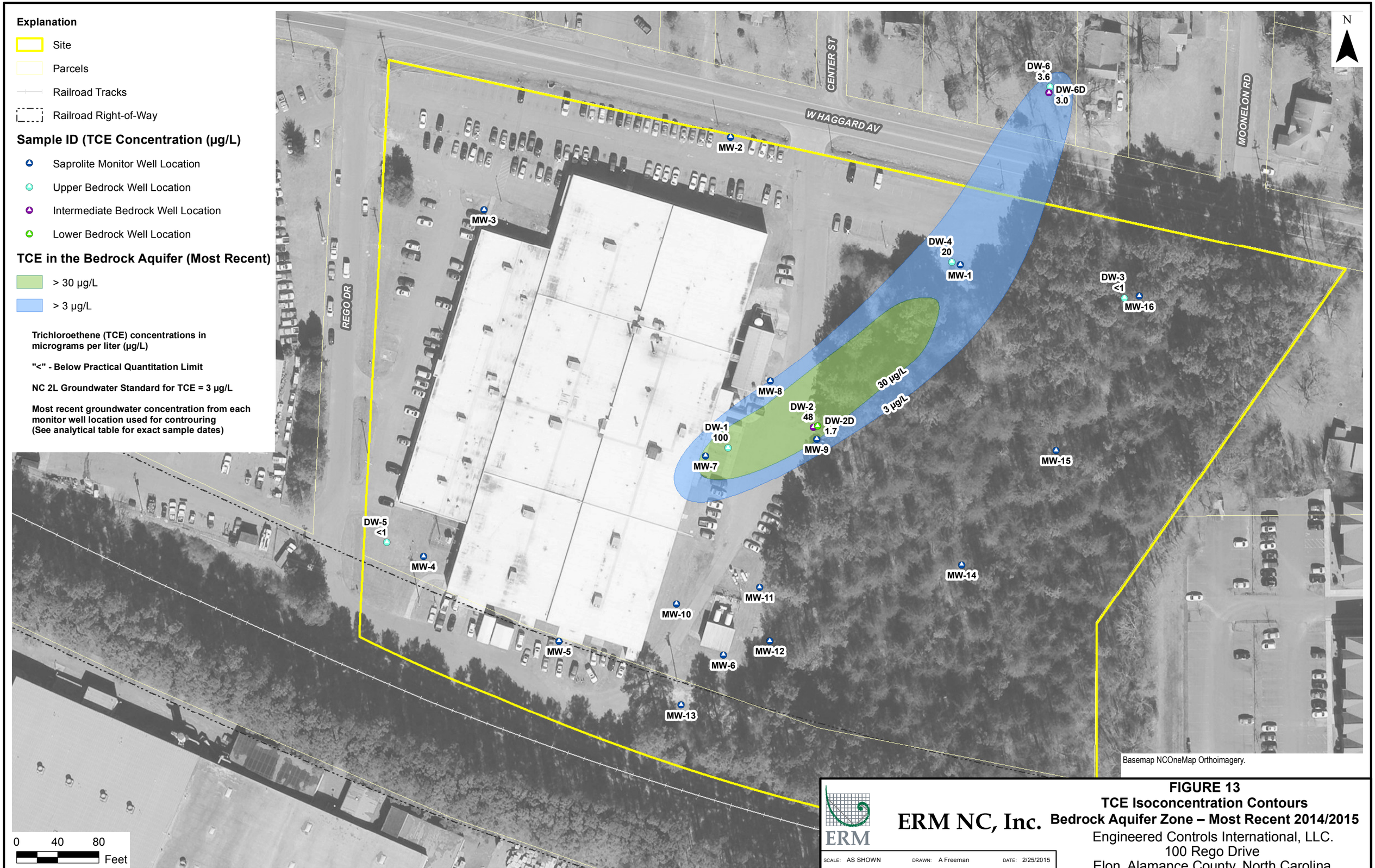

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FIGURE 13
TCE Isoconcentration Contours
Bedrock Aquifer Zone – Most Recent 2014/2015
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

Explanation

- Site
- Parcels
- Railroad Tracks
- Railroad Right-of-Way

Sample ID (PCE Concentration (µg/L)

- Saprolite Monitor Well Location
- Upper Bedrock Well Location
- Intermediate Bedrock Well Location
- Lower Bedrock Well Location
- Historical Temporary Well Location

PCE in Groundwater (Most Recent)

- > 70 µg/L
- > 7 µg/L
- > 0.7 µg/L

Tetrachloroethene (PCE) concentrations in micrograms per liter (µg/L)

"<" - Below Practical Quantitation Limit

NC 2L Groundwater Standard for PCE = 0.7 µg/L

*** Historical PCE Concentration**
Most recent groundwater concentration from each monitor well location used for contouring
(See analytical table for exact sample dates)

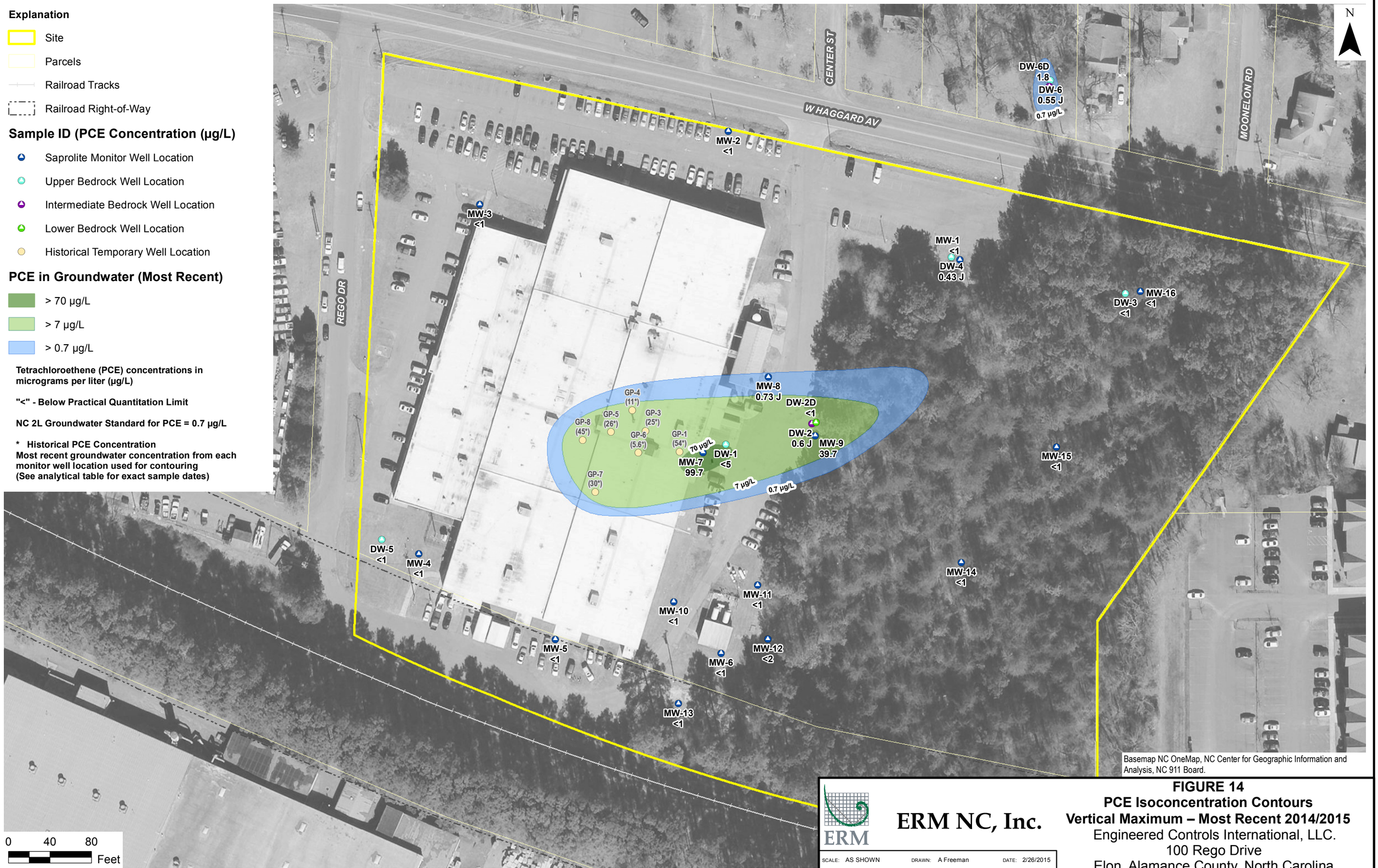

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FIGURE 14
PCE Isoconcentration Contours
Vertical Maximum – Most Recent 2014/2015
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

Explanation

- Site
- Parcels
- Railroad Tracks
- Railroad Right-of-Way
- Saprolite Monitor Well
- Upper Bedrock Monitor Well
- Intermediate Bedrock Monitor Well
- Lower Bedrock Monitor Well Location
- Temporary Soil/Groundwater Sample Location
- Hand Auger Soil Sample Location

Transect Locations

- A-A' Transect
- B-B' Transect

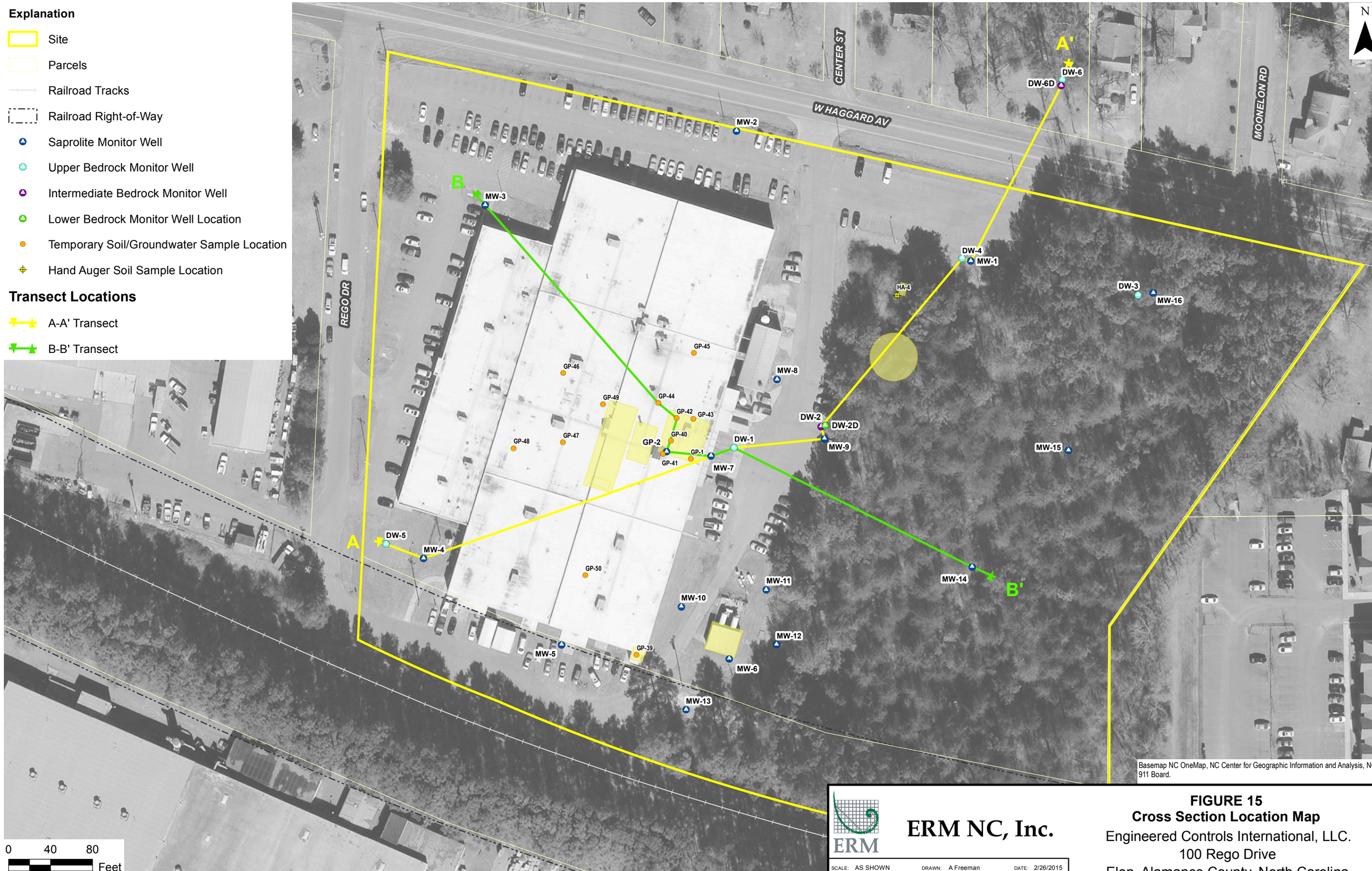

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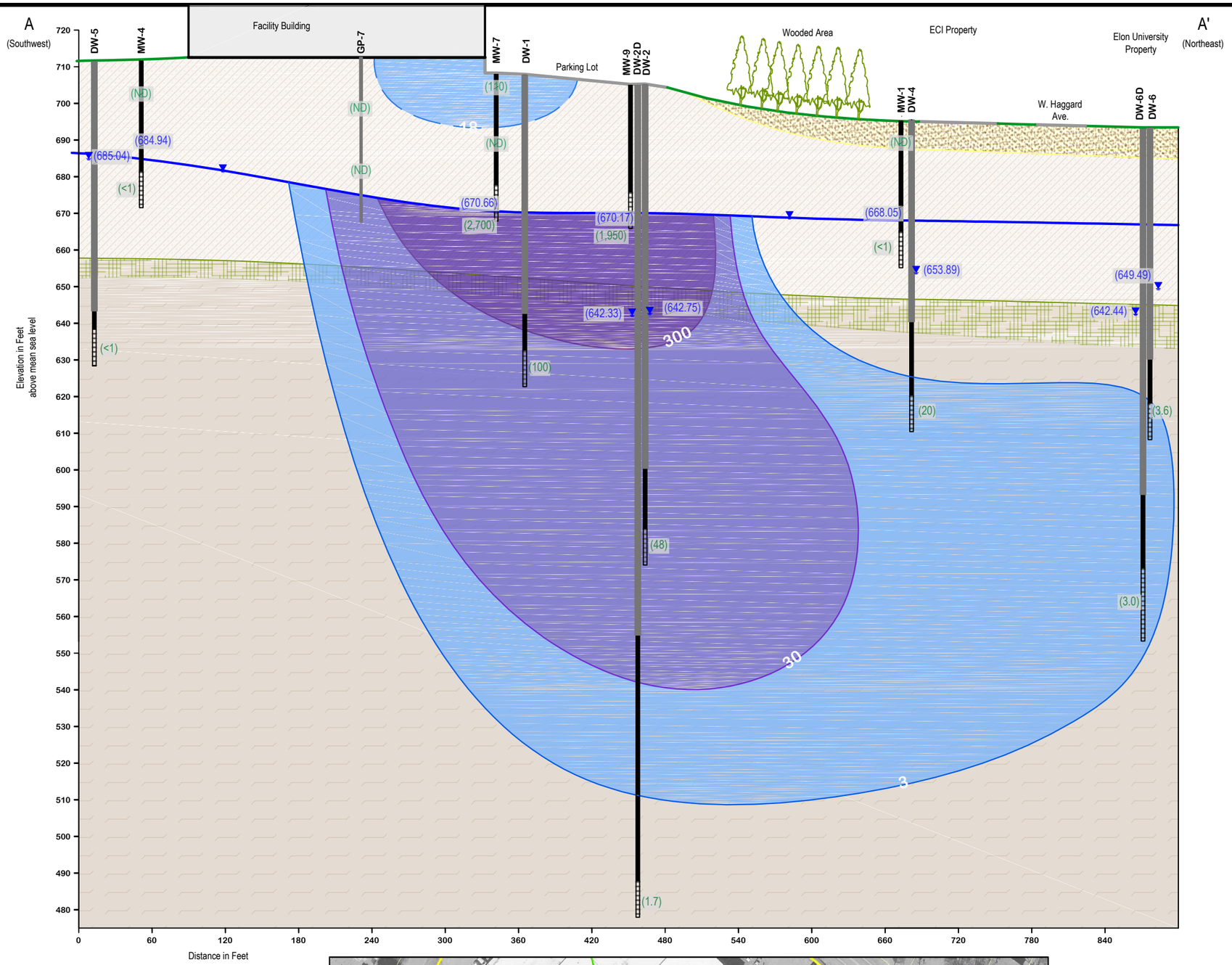
FIGURE 15
Cross Section Location Map
Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina



NOTES

- Outer Casing
- Monitor Well Riser
- Monitor Well Screened Interval
- Estimated Ground Surface (Grass)
- Estimated Ground Surface (Asphalt)
- Groundwater Surface
- Approximate Groundwater Surface Contour
- (600) Groundwater Elevation (feet above mean sea level)
- Fine Sand
- Silty Clay / Clayey Silt
- Partially Weathered Rock
- Bedrock

Soil - TCE Isoconcentration Contours

(110) TCE concentration in soil in micrograms per kilogram (µg/Kg)
NA = Not Analyzed
< = Below Detection Limit

TCE Concentration in Soil >18 µg/kg

Groundwater - TCE Isoconcentration Contours

(990) TCE concentration in monitor wells in micrograms per liter (µg/L)
Groundwater samples collected May/June 2014 through January 2015
(See Table for exact sampling dates)

TCE Concentration >300 µg/L

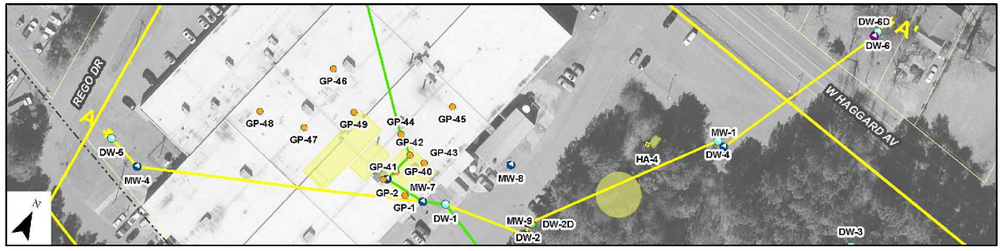
TCE Concentration >30 µg/L

TCE Concentration >3 µg/L

VE = Vertical Exaggeration

VE = 3x

SCALE IN FEET

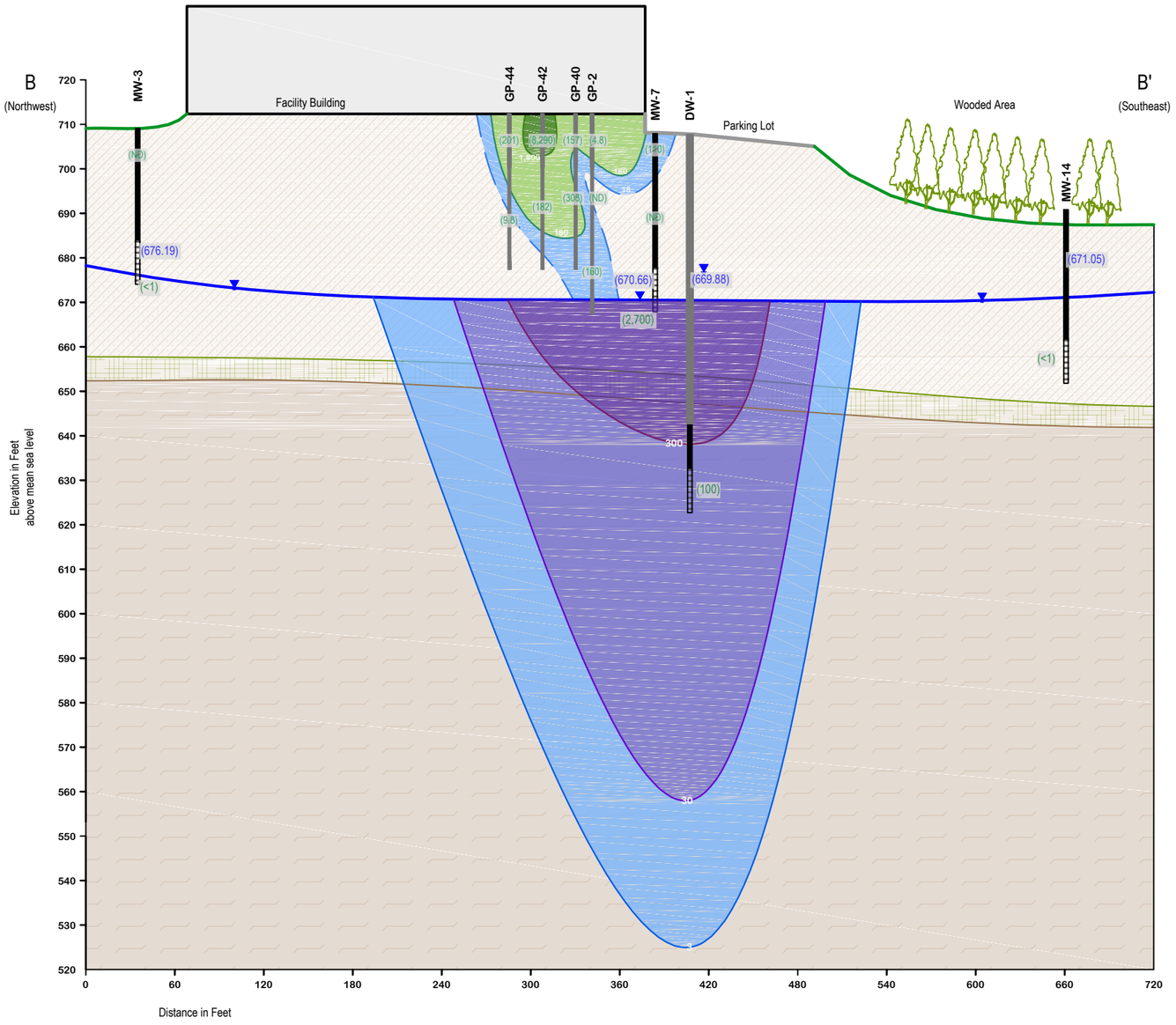


ERM NC, Inc.

FIGURE 16
Hydrogeologic Cross Section A-A'

Engineered Controls International, LLC.
100 Rego Drive
Elon, Alamance County, North Carolina

CrossSecOutput.DWG 2/26/2015



NOTES

Outer Casing

Monitor Well Riser

Monitor Well Screened Interval

Estimated Ground Surface (Grass)

Estimated Ground Surface (Asphalt)

Groundwater Surface

Approximate Groundwater Surface Contour

(600) Groundwater Elevation (feet above mean sea level)

Silty Clay / Clayey Silt

Partially Weathered Rock

Bedrock

Soil - TCE Isoconcentration Contours

(110) TCE concentration in soil in micrograms per kilogram (µg/Kg)
NA = Not Analyzed
< = Below Detection Limit

TCE Concentration in Soil >1,800 µg/kg

TCE Concentration in Soil >180 µg/kg

TCE Concentration in Soil >18 µg/kg

Groundwater - TCE Isoconcentration Contours

(990) TCE concentration in monitor wells in micrograms per liter (µg/L)
Groundwater samples collected May/June 2014 through January 2015
(See Table for exact sampling dates)

TCE Concentration >300 µg/L

TCE Concentration >30 µg/L

TCE Concentration >3 µg/L

VE = Vertical Exaggeration

30
15
0
VE = 3x
SCALE IN FEET
0 45 90

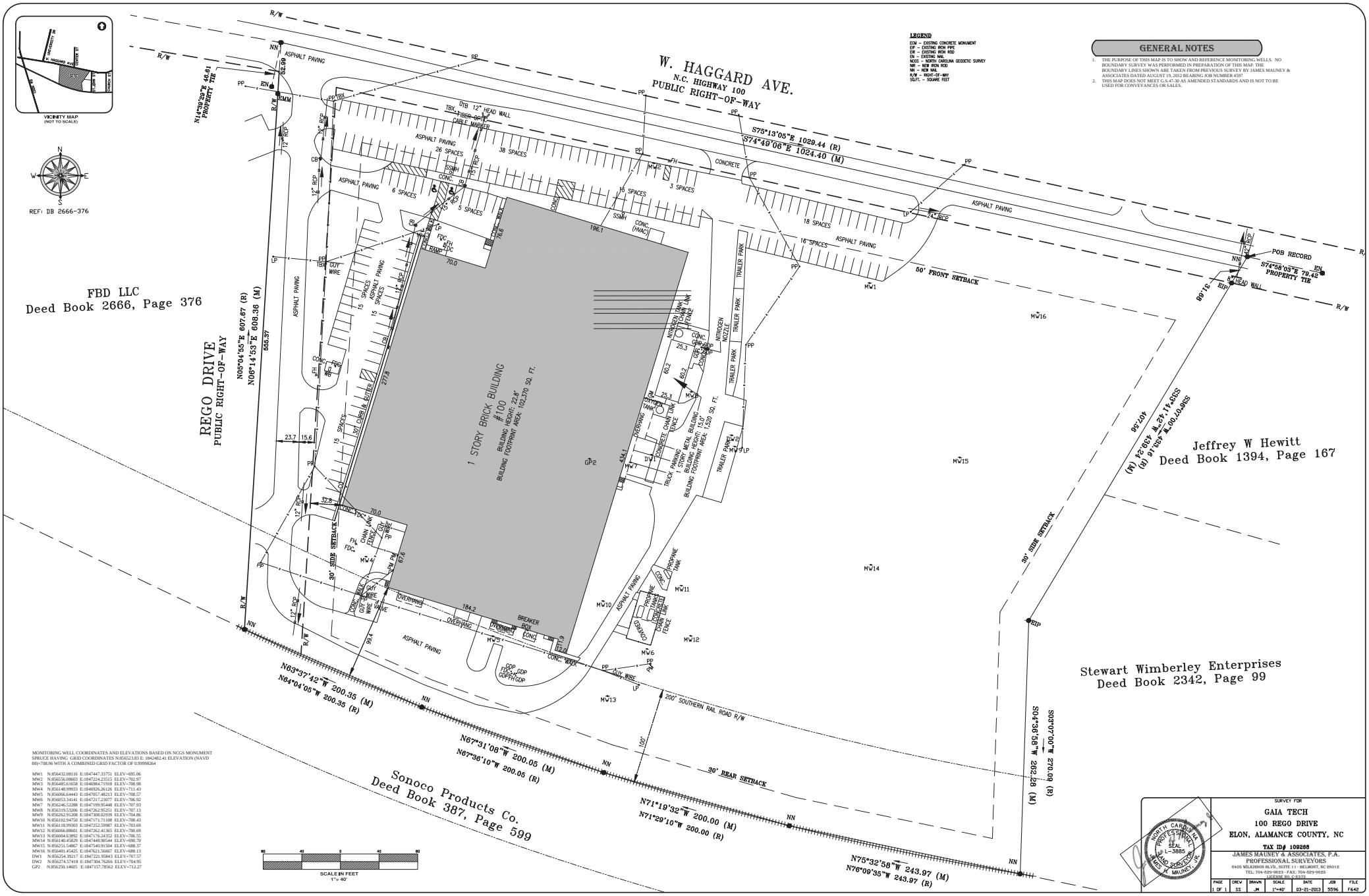
ERM NC, Inc.

FIGURE 17
Hydrogeologic Cross Section B-B'

Engineered Controls International, LLC.
100 Rego Road
Elon, Alamance County, North Carolina

CrossSecOutput.DWG 2/26/2015

APPENDIX A
SITE SURVEY & SUPPLEMENTS



MONITORING WELL COORDINATES AND ELEVATIONS BASED ON NCGS MONUMENT SPRUCE HAVING GRID COORDINATES N:856523.83 E: 1842482.41 ELEVATION (NAVD 88)=708.96 WITH A COMBINED GRID FACTOR OF 0.99998264

MW1	N:856432.08116	E:1847447.33751	ELEV=695.06
MW2	N:856556.08603	E:1847224.23515	ELEV=702.97
MW3	N:856485.61658	E:1846984.71918	ELEV=708.98
MW4	N:856148.99933	E:1846926.26126	ELEV=711.43
MW5	N:856066.64443	E:1847057.48213	ELEV=708.57
MW6	N:856053.34141	E:1847217.23077	ELEV=706.92
MW7	N:856246.52388	E:1847199.95448	ELEV=707.93
MW8	N:856319.53006	E:1847262.95251	ELEV=707.13
MW9	N:856262.91208	E:1847308.02939	ELEV=704.86
MW10	N:856102.94750	E:1847171.71108	ELEV=708.43
MW11	N:856118.99303	E:1847252.59987	ELEV=703.69
MW12	N:856066.88601	E:1847262.41365	ELEV=700.69
MW13	N:856004.63892	E:1847176.24352	ELEV=706.55
MW14	N:856140.45829	E:1847448.90544	ELEV=690.70
MW15	N:856251.54867	E:1847540.91504	ELEV=688.37
MW16	N:856401.45425	E:1847621.56667	ELEV=688.13
DW1	N:856254.39217	E:1847231.95843	ELEV=707.57
DW2	N:856274.57418	E:1847304.76266	ELEV=704.95
GP2	N:856250.14605	E:1847157.78562	ELEV=712.27

GENERAL NOTES

1. THE PURPOSE OF THIS MAP IS TO SHOW AND REFERENCE MONITORING WELLS. NO BOUNDARY SURVEY WAS PERFORMED IN PREPARATION OF THIS MAP. THE BOUNDARY LINES SHOWN ARE TAKEN FROM PREVIOUS SURVEY BY JAMES MAUNEY & ASSOCIATES DATED AUGUST 19, 2012 BEARING JOB NUMBER 4597
2. THIS MAP DOES NOT MEET G.S.47-30 AS AMENDED STANDARDS AND IS NOT TO BE USED FOR CONVEYANCES OR SALES.

SURVEY FOR

GAIA TECH

100 REGO DRIVE

ELON, ALAMANCE COUNTY, NC

TAX ID# 109288

JAMES MAUNEY & ASSOCIATES, P.A.
PROFESSIONAL SURVEYORS
6405 WILKINSON BLVD., SUITE 11 - BELMONT, NC 28012
TEL: 704-829-9823 - FAX: 704-829-9825
LICENSE NO. C-2372

NORTH CAROLINA PROFESSIONAL SEAL L-3885 LAND SURVEYOR JAMES A. MAUNEY

PAGE	CREW	DRAWN	SCALE	DATE	JOB	FILE
1 OF 1	SS	JM	1"=40'	03-21-2013	5596	F642

Taylor Wiseman & Taylor
ENGINEERS / SURVEYORS / SCIENTISTS
3500 Regency Parkway, Suite 260, Cary, NC 27518
919-297-0085 phone 919-297-0090 fax
www.taylorwiseman.com

Engineered Controls International, Inc.

100 Rego Road, Elon, NC

Geological Feature Survey

TWT Project #: 03794.6006.01

Date of Survey: May 21, 2014

CONTROL LINE			
Control	*Northing*	*Easting*	*Elevation*
Nail 1	856618.10	1846884.87	708.76
Nail 2	856508.28	1847336.24	700.98

GEOLOGICAL FEATURES				
Survey Point ID	*Northing*	*Easting*	*Top of Case Elevation*	*Ground Elevation*
BG-1	856399.18	1847613.86	n/a	684.75
BG-2	856316.89	1847613.52	n/a	684.08
BG-3	856255.56	1847548.39	n/a	684.82
BG-4	856219.34	1847499.12	n/a	685.32
BG-5	856144.82	1847455.39	n/a	687.06
DW-3	856400.07	1847607.01	688.23	685.40
DW-4	856434.98	1847439.18	695.40	695.75
DW-5	856162.60	1846890.37	711.38	711.74
GP-1	856243.82	1847180.73	n/a	712.52
GP-2	856250.59	1847157.72	712.35	712.52
GP-41	856248.59	1847154.20	n/a	712.51
GP-40	856260.98	1847161.87	n/a	712.50
GP-42	856282.67	1847167.18	n/a	712.50
GP-43	856281.83	1847183.31	n/a	712.53
GP-45	856344.83	1847183.82	n/a	712.49
GP-44	856297.08	1847149.90	n/a	712.55
GP-50	856132.80	1847080.39	n/a	712.64
GP-49	856295.64	1847097.05	n/a	712.66
GP-46	856325.45	1847059.12	n/a	712.64
GP-48	856253.92	1847011.89	n/a	712.64
GP-47	856259.31	1847058.98	n/a	712.63
GP-39	856056.94	1847129.16	n/a	708.91
HA-7	856399.38	1847377.31	n/a	692.36
MW-14	856140.72	1847448.84	690.81	687.41
MW-15	856251.97	1847540.59	688.47	685.10
MW-16	856401.72	1847621.35	688.24	684.91

MISCELLANEOUS FEATURES			
Point	*Northing*	*Easting*	*Elevation*
doorway	856307.36	1847113.07	712.57
doorway	856298.11	1847110.28	712.57

Survey Control Metadata:

Horizontal Datum: NAD83 (2011)
Epoch: 2010.00
Vertical Datum: NAVD88 (Geoid 2012A)
Units: U.S. Survey Feet
GPS Technique: Network RTK (VRS)
Date of GPS Survey: May 21, 2014
GPS Ant. Type: Trimble R8-3
GPS Ant. SN: 5005414918
Fixed Station: NCBU / PID: DF9213
WGS-84 Lat: 36°05'29.58604"N
WGS-84 Lon: 79°26'12.17620"W
Ellipsoid Height: 568.90
Geoid Height: -99.18
Project Combined Factor: 0.99995364
Calculated at Point 1
Class of Survey: "A" - Urban Land Survey
Adjustment: TGO Least Squares at 95% C.L.
Positional Accuracy: 0.07'

VRS GPS was used to establish the control line (points 1 and 2). All other locations were obtained via conventional surveying methodologies using a Trimble S6 Robotic Total Station.

n/a = not applicable

Taylor Wiseman & Taylor
ENGINEERS I SURVEYORS I SCIENTISTS
3500 Regency Parkway, Suite 260, Cary, NC 27518
919-297-0085 phone 919-297-0090 fax
www.taylorwiseman.com

Engineered Controls International, Inc.

100 Rego Road, Elon, NC

Geological Feature Survey

TWT Project #: 03794.6006.03

Date of Survey: January 28, 2015

CONTROL LINE			
Control	*Northing*	*Easting*	*Elevation*
Nail 1	856618.10	1846884.87	708.76
Nail 2	856508.28	1847336.24	700.98

GEOLOGICAL FEATURES				
Survey Point ID	*Northing*	*Easting*	*Top of Case Elevation*	*Ground Elevation*
DW-2D	856,275.77	1,847,308.84	704.94	705.19
DW-6	856,605.20	1,847,534.58	693.26	693.57
DW-6D	856,599.51	1,847,533.50	693.30	693.43

Survey Control Metadata:

Horizontal Datum: NAD83 (2011)
Epoch: 2010.00
Vertical Datum: NAVD88 (Geoid 2012A)
Units: U.S. Survey Feet
GPS Technique: Network RTK (VRS)
Date of GPS Survey: May 21, 2014
GPS Ant. Type: Trimble R8-3
GPS Ant. SN: 5005414918
Fixed Station: NCBU / PID: DF9213
WGS-84 Lat: 36°05'29.58604"N
WGS-84 Lon: 79°26'12.17620"W
Ellipsoid Height: 568.90
Geoid Height: -99.18
Project Combined Factor: 0.99995364
Calculated at Point 1
Class of Survey: "A" - Urban Land Survey
Adjustment: TGO Least Squares at 95% C.L.
Positional Accuracy: 0.07'

VRS GPS was used to establish the control line (points 1 and 2). All other locations were obtained via conventional surveying methodologies using a Trimble S6 Robotic Total Station.

Survey Note:
TWT established the control line (Points 1 & 2) with VRS GPS procedures. TWT searched for NC Geodetic Survey monuments "Brammer" and "Piney". "Brammer" falls beneath new pavement and is believed to be destroyed or disturbed. "Piney" was found disturbed. The brass cap has been destroyed and only the brass pin is visible. TWT found and surveyed NCGS "L 153", which is a vertical benchmark along the railroad tracks on the southwest side of the property. The elevation of the monument checked within 0.02' of the VRS GPS elevation datum that was held for the survey control line.

Survey Certification:
I, Chad T. Howard, certify that this report was prepared under my supervision, from an actual ground (conventional) and GPS survey made under my supervision;
that the positional accuracy has been reported hereon;
that the geological features surveyed and identified hereon were surveyed in a manner sufficient to comply with national map accuracy standards and the requirements of the Standards of Practice for Land Surveying in North Carolina (21 NCAC 56.1600).

Witness my original signature, registration number and seal this 30th day of January, in the year of our Lord 2015.

1/30/2015

NORTH CAROLINA PROFESSIONAL SEAL L-4220 LAND SURVEYOR CHAD T. HOWARD

Survey Note:
TWT established the control line (Points 1 & 2) with VRS GPS procedures. TWT searched for NC Geodetic Survey monuments "Brammer" and "Piney". "Brammer" falls beneath new pavement and is believed to be destroyed or disturbed. "Piney" was found disturbed. The brass cap has been destroyed and only the brass pin is visible. TWT found and surveyed NCGS "L 153", which is a vertical benchmark along the railroad tracks on the southwest side of the property. The elevation of the monument checked within 0.02' of the VRS GPS elevation datum that was held for the survey control line.

Survey Certification:
I, Chad T. Howard, certify that this report was prepared under my supervision, from an actual ground (conventional) and GPS survey made under my supervision;
that the positional accuracy has been reported hereon;
that the geological features surveyed and identified hereon were surveyed in a manner sufficient to comply with national map accuracy standards and the requirements of the Standards of Practice for Land Surveying in North Carolina (21 NCAC 56.1600).

Witness my original signature, registration number and seal this 27th day of May, in the year of our Lord 2014.

5/27/2014

NORTH CAROLINA PROFESSIONAL SEAL L-4220 LAND SURVEYOR CHAD T. HOWARD

APPENDIX B
PHOTOGRAPH LOG

Photograph #1	***Description: Monitor wells MW-1 (foreground) and DW-4 facing west. ECI facility in background, wooded area to left, and parking area followed by West Haggard Avenue to right.***
ERM NC, Inc.	

Photograph #2	***Description: Aquifer testing at bedrock monitor well DW-4, located upgradient near southwest corner of site.***
ERM NC, Inc.	

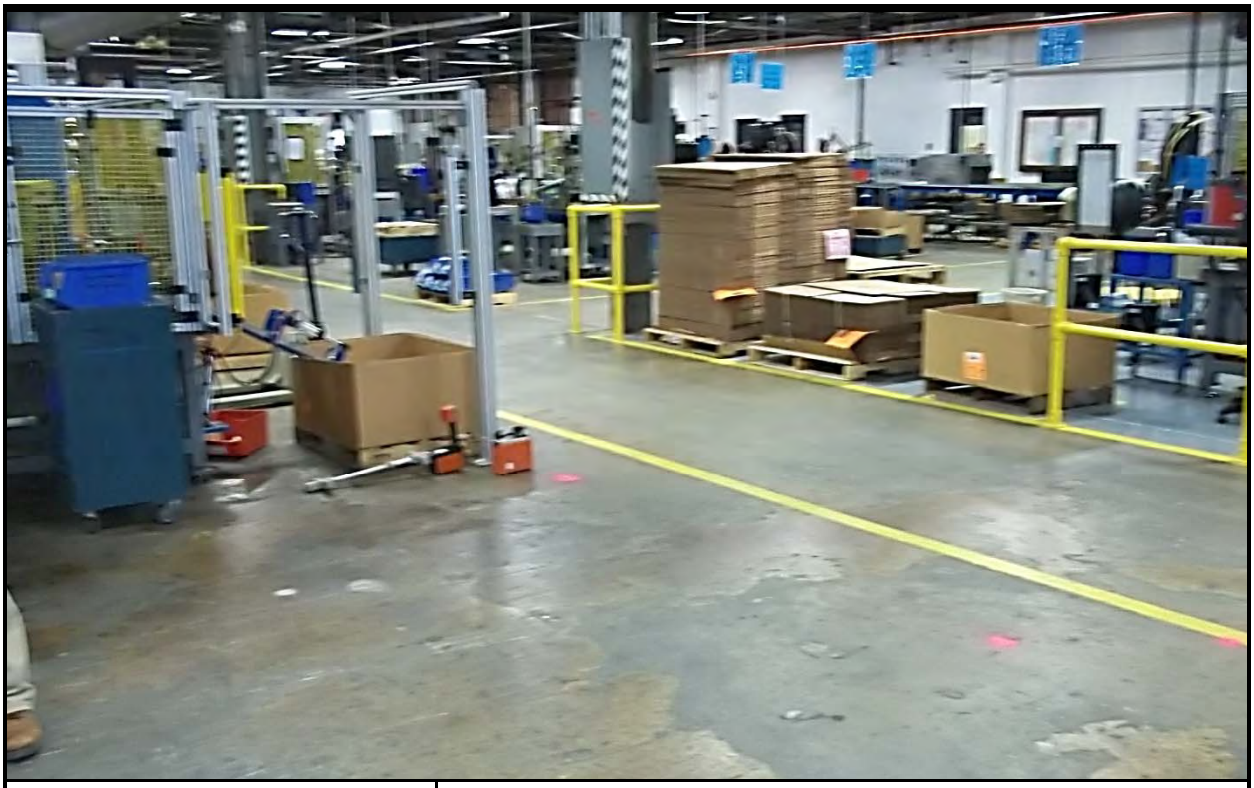
Photograph #3	***Description: Installation of bedrock monitor well DW-3 in wooded area, near northeast corner of site.***
ERM NC, Inc.	

Photograph #4	***Description: Bedrock monitor well DW-3 (foreground) and saprolite monitor well MW-16 (background) in wooded area, near northeast corner of site; view to the east.***
ERM NC, Inc.	

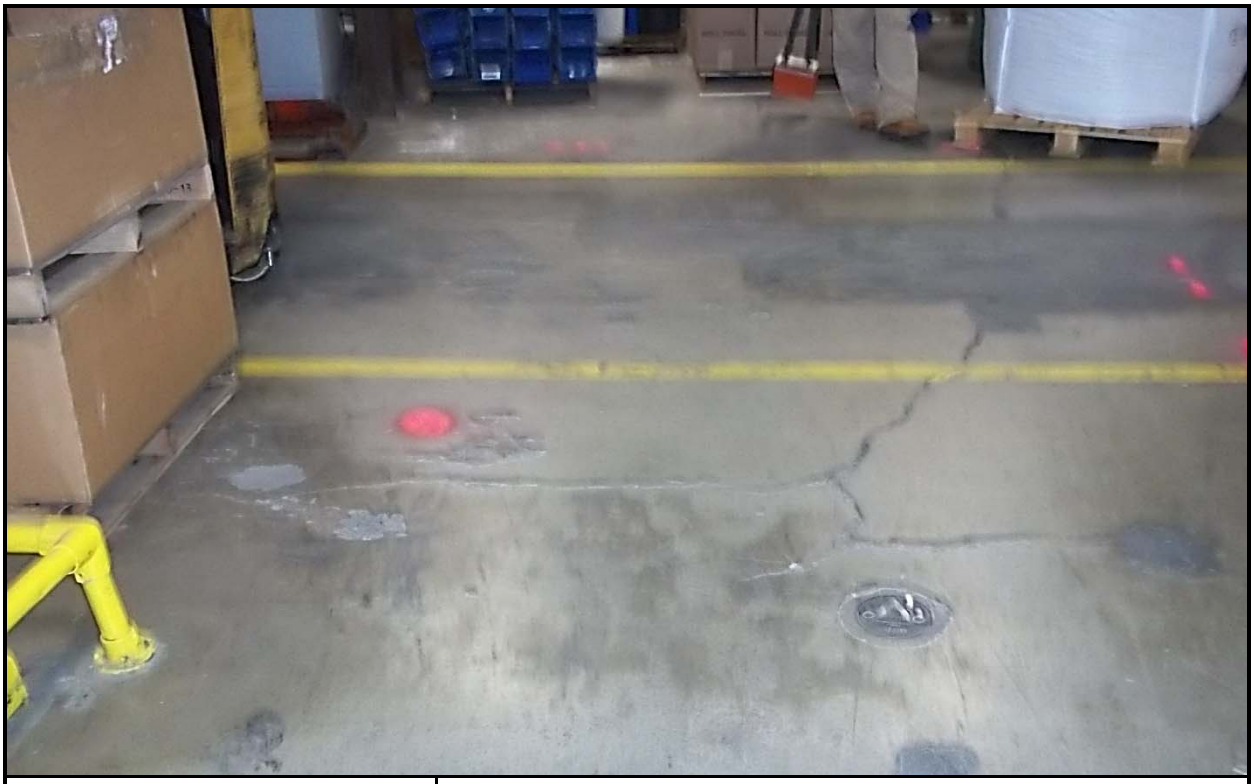
Photograph #5	***Description: AOC 4 – Former Solvent-Based Painting/Storage area, location of soil boring GP-39.***
ERM NC, Inc.	

Photograph #6	***Description: Use of ground penetrating radar during utility clearance activities.***
ERM NC, Inc.	

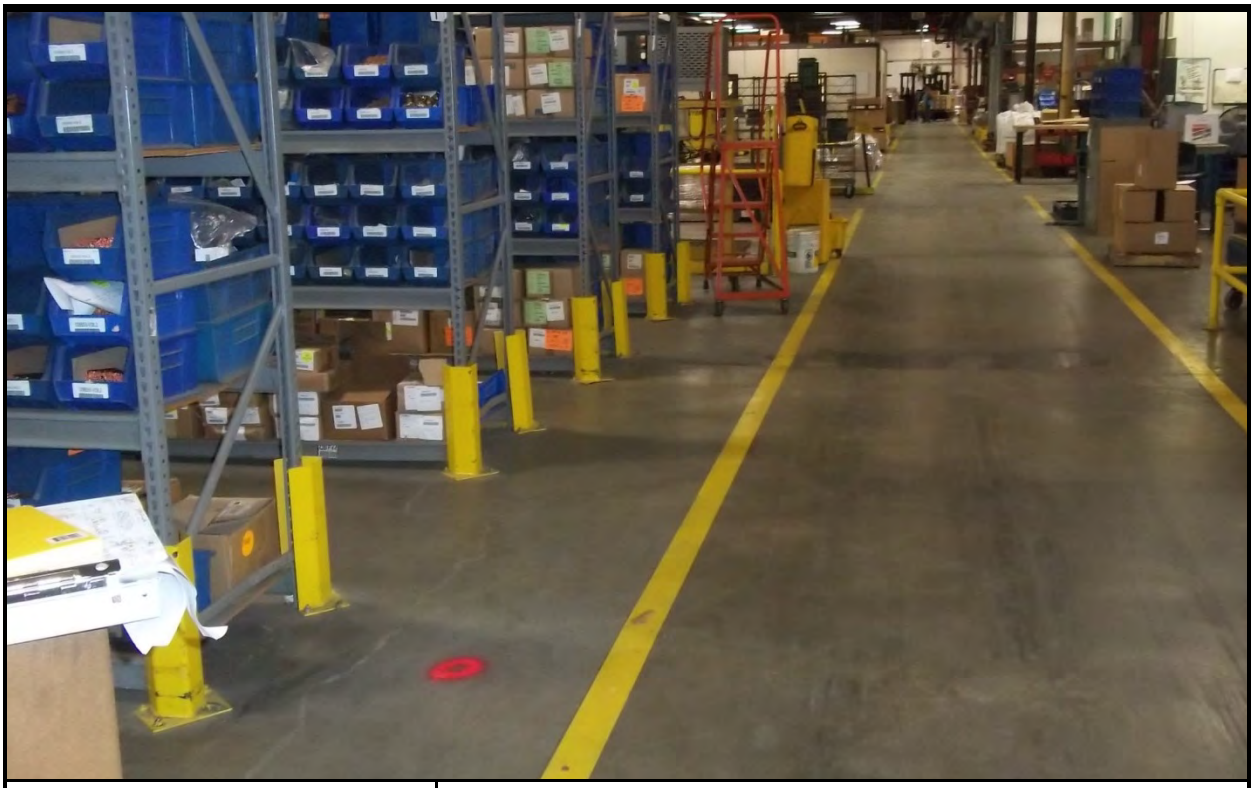
Photograph #7	***Description: Temporary well location GP-46 indicated by pink dot, located near and northwest of AOC 2.***
ERM NC, Inc.	



Photograph #8	***Description: Temporary well location GP-47, located near and west of AOC 2.***
ERM NC, Inc.	



Photograph #9	***Description: Soil boring location GP-41 (red dot), located near saprolite monitor well GP-2 (right) in AOC 1, the Former Vapor Degreaser Area.***
ERM NC, Inc.	



Photograph #10	***Description: Temporary well location GP-45, located north of AOC 1.***
ERM NC, Inc.	

APPENDIX C
BORING LOGS AND WELL CONSTRUCTION RECORDS

GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-1

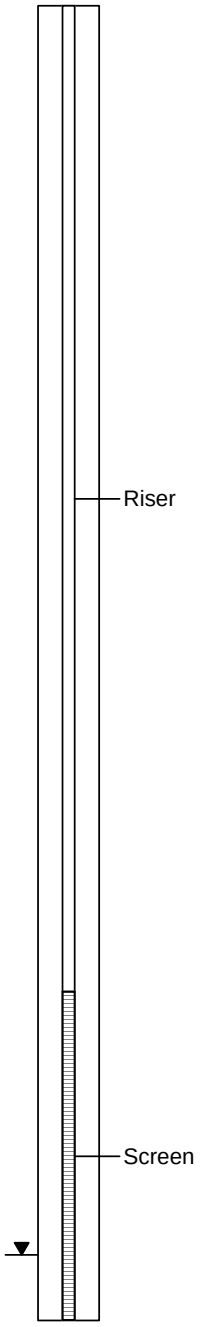
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/20/11	Logged By	: Larry
Date/Time Completed	: 7/20/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 2 inch, 1 inch well
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by sand and gravel (FILL)
2	1		90	83.9	ML-CL		CLAYEY SILT, little sand and gravel, red, stiff, dry, no odor, low plasticity
4	2			6.6			
							Slight odor from 5 to 20 ft
6	3		90	10.2			
8	4			9.9			
10	5		100	6.1			
12							
14	6			6.0			
16	7		100	3.9			
18	8			4.2			
20	9		100	5.6			
22							
24	10			6.3			
26	11		100	5.7	ML		CLAYEY SILT, orange/red and yellow, soft, damp to moist, no odor, low plasticity
28	12			5.6			
30	13		100	2.6			
32							
34	14			2.1			
36	15		100	9.1			
38	16			28.3			
40							End of Boring: 40 ft

Well: GP-1
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-2

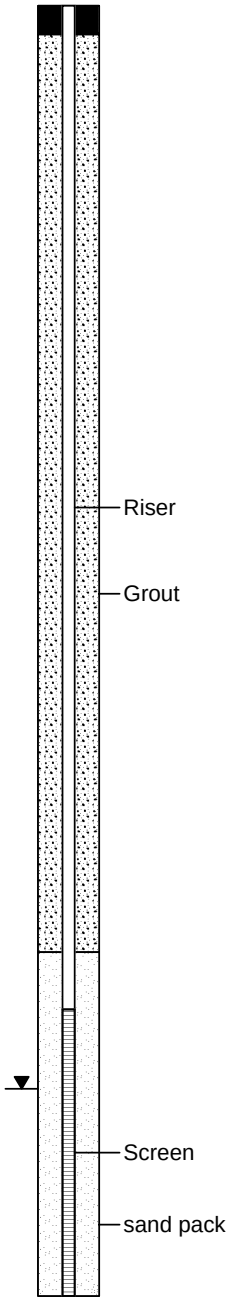
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/20/11	Logged By	: Larry
Date/Time Completed	: 7/20/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2 inch, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by crushed stone (FILL)
2	1		85	2.3	ML-CL		CLAYEY SILT, red, stiff, trace sand and gravel, damp to dry, no odor, low plasticity
4	2			305			
6	3		100	15.4			
8	4			15.3			
10					ML		SANDY, CLAYEY SILT, dark brown, compact, low plasticity
12	5		100	13.4	ML-CL		CLAYEY SILT, red, stiff, trace sand and gravel, damp to dry, no odor, low plasticity
14	6			10.7			
16	7		100	12.6	ML-CL		CLAYEY SILT, red, orange/red and light yellow, trace sand, dry
18	8			13.9			
20	9		100	12.9			
22	10			13.8			
24							
26	11		100	16.8			
28	12			18.8			
30							Moist at 30 ft
32	13		100	27.8	SM		SANDY SILT, red, little clay, slight odor
34	14			28.8	CL-ML		CLAYEY SILT, yellowish-brown and black layered, wet at 38 feet, low plasticity, slight odor.
36	15		100	59.7			
38	16			40.2			
40	17		100	38.6			
42							
44	18			22.8			
46							End of Boring: 40 ft

Well: GP-2
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-3

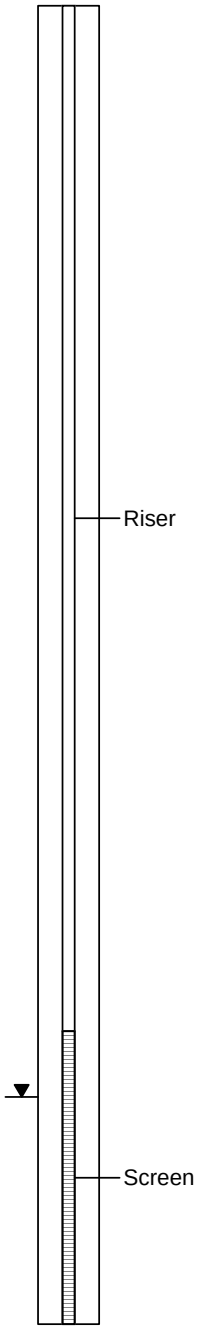
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/20/11	Logged By	: Larry
Date/Time Completed	: 7/20/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2 inch boring, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by sand and gravel (FILL)
2	1		85	68.3	ML-CL		CLAYEY SILT, red, trace sand, low plasticity, no odor
4	2			68.3			
6	3		100	35.6			
8	4			38.2			
10	5		100	29.8			
12							
14	6			24.8			
16	7		100	30.1	ML		CLAYEY SILT, red, trace sand, low plasticity, no odor
18	8			25.7			
20	9		100	31.2			
22							
24	10			29.7			
26	11		100	25.3			
28	12			27.1			
30	13		100	26.2			
32							
34	14			25.6			moist at 35 ft
36	15		100	22.5			
38	16			23.8	SM		SANDY SILT, light brown, little clay, soft, very moist, no odor
40	17		100	15.8			
42							
44	18			7.6	SM-SP		SILTY SAND, light brown, soft, moist, no odor,
46							End of Boring: 45 ft

Well: GP-3
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-4

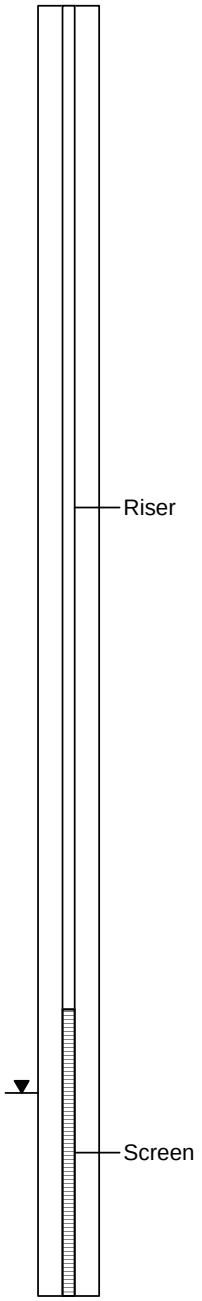
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/20/11	Logged By	: Larry
Date/Time Completed	: 7/20/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2 inch boring, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Well: GP-4
Elev.:

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by sand and gravel (FILL)
2	1		85	30	ML-CL		CLAYEY SILT, red, trace sand and gravel, low plasticity, no odor, stiff
4	2			21.9			
6	3		75	10.1			
8	4			8.6			
10	5		100	18.6			
12	6			11.2			
16	7		100	14.8	ML		CLAYEY SILT, red, trace sand and gravel, low plasticity, damp
18	8			10.6			
20	9		100	29.9			
22	10			30.6			
24	11		100	15.6			
26	12			10.3			
28	13		100	6.3			
30	14			4.2	SM-SP		SILTY SAND, white-tan, little clay, soft, moist
32	15		100	3.8			
34	16			3.6	SM		SANDY SILT, red and white, little clay, low plasticity, moist to wet at 38 ft.
36	17		100	2.6			
38	18			1.2			
40							
42							
44							
46							End of Boring: 45 ft



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-5

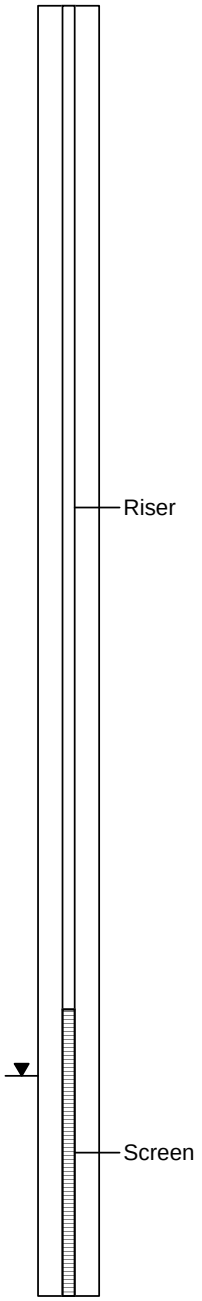
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/20/11	Logged By	: Larry
Date/Time Completed	: 7/20/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2 inch boring, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by crushed stone (FILL)
2	1		85	5.6	ML-CL		CLAYEY SILT, red, trace sand, low plasticity, no odor, dry, stiff
4	2			7.2			
6	3		100	11.7			
8	4			12.1			
10	5		100	22.8			Little sand at 10-15 ft
12							
14	6			37.6			
16	7		100	25.6	SM		SANDY SILT, red, little clay, dry, low plasticity, no odor
18	8			24.3			
20	9		100	32.5			
22							
24	10			26.8	SM-ML		SANDY SILT with little clay, white and orange-red
26	11		100	16.8			
28	12			15.2			
30	13				ML		SILT, white-tan, little clay and sand, soft, moist
32							
34	14						
36	15						
38	16						Wet at 38 ft
40	17						
42							
44	18						
46							End of Boring: 45 ft

Well: GP-5
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-6

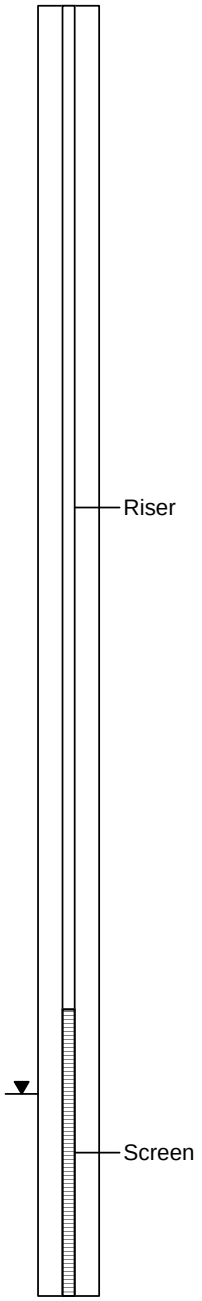
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/21/11	Logged By	: Larry
Date/Time Completed	: 7/21/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2-inch boring, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by stone and gravel-crushed stone (FILL)
2	1		90	2.7	ML-CL		CLAYEY SILT, red, very stiff, trace sand, low plasticity, no odor
4	2			4.1			
6	3		100	10.7			
8	4			15.1			
10	5		100	27.7			
12	6			19.6			
14	7		100	18.3			
16	8			13			
18							
20	9		100	26.8	ML		CLAYEY SILT, red, soft, moist, no odor, low plasticity
22	10			23.3			
24	11		100	20.1			
26	12			18.1			
28	13		100	26.2			Orange to yellow
30	14			26.6			
32	15		100	28.1			Wet at 38 ft
34	16			32.1			
36	17		100	20.6			
38							
40							
42							
44							
46							End of Boring: 45 ft

Well: GP-6
Elev.:



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GaiaTech, Inc.

Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-7

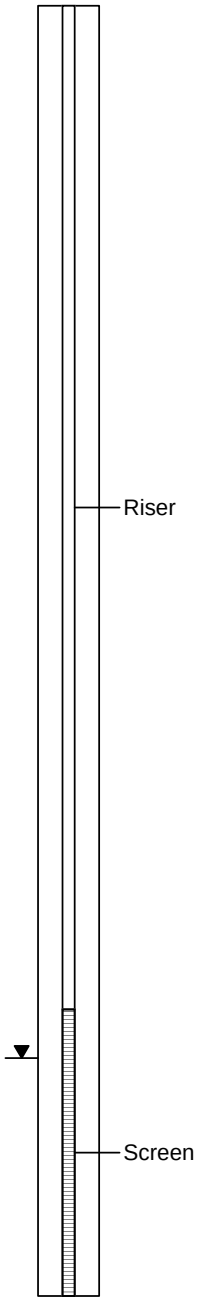
(PAGE 1 TO 1)

Engineered controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/21/11	Logged By	: Larry
Date/Time Completed	: 7/21/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2-inch boring, 1 inch well
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Dual Tube

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by sand and gravel (FILL)
2	1		80	11.3	ML-CL		CLAYEY SILT, red, stiff, trace sand, low plasticity, no odor
4	2			8.1			
6	3		100	11.5			
8	4			11			
10	5		100	14.9			
12	6			17.8			
14	7		100	16.1			
16	8			16.3			
18							
20	9		100	14.6	ML		CLAYEY SILT, orange, little sand, soft, moist, no odor, low plasticity
22	10			13.8			
24							
26	11		80	14.5	ML		CLAYEY SILT, white, soft, moist, no odor
28							
30							
32	12		100	29.9	ML		CLAYEY SILT, red to orange, trace sand, soft, moist, no odor
34							
36	13		100	22.4			
38							
40	14		100	17.8			
42							
44							
46							End of Boring: 45 ft

Well: GP-7
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-8

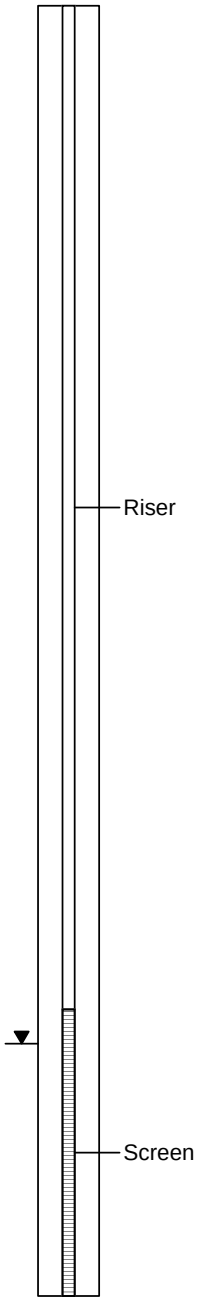
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/21/11	Logged By	: Larry
Date/Time Completed	: 7/21/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 2-inch well, 1 inch boring
Total Depth of Well	: 45 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" concrete underlain by sand, crushed stone and gravel (FILL)
2	1		100	5.6	ML-CL		CLAYEY SILT, red, stiff, trace sand, dry, no odor, low plasticity
4	2			11.5			
6	3		100	21.5			
8	4			19.9			
10	5		100	32.1			occasional sand seems at 12-15ft
12							
14	6			14.6			
16	7		100	31.9	ML		CLAYEY SILT, orange and white, low plasticity, no odor, trace sand
18	8			26.9			
20	9		100	31.1			
22							
24	10			29.6			
26	11		100	15.2	ML		CLAYEY SILT, white-tan, soft, damp, low plasticity, no odor
28	12			14.8			
30	13		100	16.3			
32							
34	14			13.6			
36	15		100	9.7			
38	16			8.5			wet at 38.5 ft
40	17		100	7.6			
42							
44	18			7.1			
46							End of Boring: 45 ft

Well: GP-8
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-9

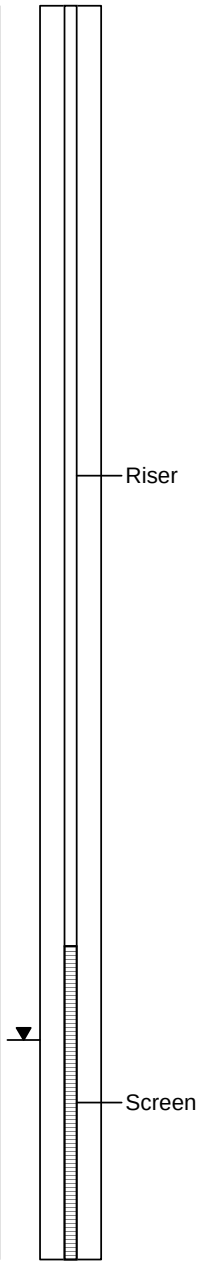
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/21/11	Logged By	: Larry
Date/Time Completed	: 7/21/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 2 inch boring, 1 inch well
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0	1		85	0.9	AR		Crushed stone and clayey silt, no odor (FILL)
2					ML-CL		CLAYEY SILT, red, trace sand, stiff, damp
4	2			0.8			
6	3		100	0			
8	4			0			
10	5		100	0	ML		CLAYEY SILT, red to orange, trace sand, low plasticity, no odor
12							
14	6			0			
16	7		100	0			
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0	ML		CLAYEY SILT, yellowish-brown, firm, no odor
28	12			0			
30	13		100	0			
32							Wet at 33 ft
34	14			0			
36	15		100	0			
38	16			0			
40							End of Boring: 40 ft
42							

Well: GP-9
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-10

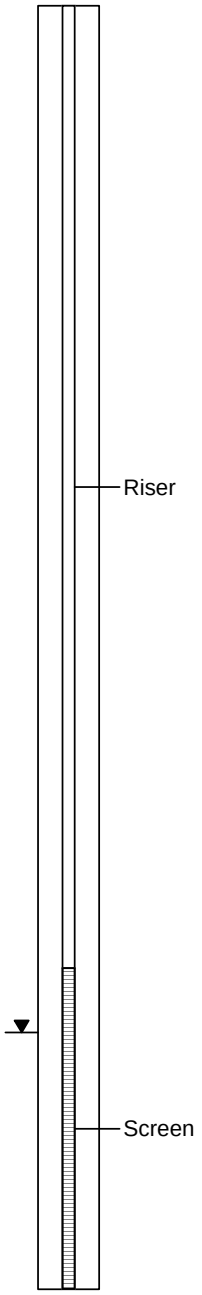
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/21/11	Logged By	: Larry
Date/Time Completed	: 7/21/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 2-inch boring, 1 inch well
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0	1		90	0.9	AR		Topsoil underlain by clayey silt with gravel (FILL)
2					ML-CL		CLAYEY SILT, red and yellowish-brown, trace sand, low plasticity, no odor, stiff, damp
4	2			0.7			
6	3		100	0.2			
8	4			0			
10	5		100	0	ML		CLAYEY SILT, red to yellow, trace sand, no odor, low plasticity, moist
12							
14	6			0			
16	7		100	0			
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0	ML		CLAYEY SILT, white-tan, soft, no odor, low plasticity
28	12			0			
30	13		100	0			
32							Wet at 32 ft
34	14			0			
36	15		100	0			
38	16			0			
40							End of Boring: 40 ft
42							

Well: GP-10
Elev.:



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GaiaTech, Inc.

Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - GP-11

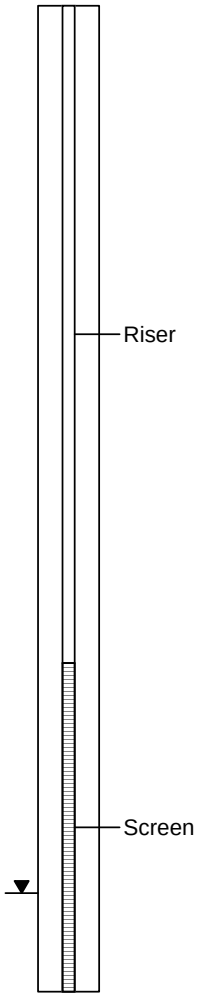
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/22/11	Logged By	: Larry
Date/Time Completed	: 7/22/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 2 inch boring, 1 inch well
Total Depth of Well	: 30 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Maco-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0	1		75	0	CL-ML		CLAYEY SILT - red and brown, stiff, dry, damp, no odor.
2	2			0			
4	3		100	0			
6	4			0			
8	5		100	0			
10	6			0			
12	7		100	0			
14	8			0			
16	9		100	0			
18	10			0			
20	11		100	0			
22	12			0	SC		SILTY SANDY CLAY - tan, wet, soft to firm, no odor.
24							
26							
28							
30							End of Boring: 40 ft
32							
34							
36							
38							
40							

Well: GP-11
Elev.:



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GAIATECH BORING LOG - GP-12

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.1	ML		Concrete surface (4") followed by red/orange CLAYEY SILT, no odor, dry, almost no plasticity.
5–10	2			2.0	ML		Same a previous.
10–15	3			2.0	ML		Same as previous.
15–20	4			2.0	ML		Orange and yellow silts with very little clay, no odor, dry.
20–25	5			1.2	ML		Same as previous.
25–30	6			1.5	ML		Same as previous. Large quartz fragments at 27' to 27.5 feet.
29–30							Orange and tan saprolitic silts, very moist, no odor.

Boring Terminated at 30 feet.

GAIATECH BORING LOG - GP-13

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.1	ML		Concrete surface (4") followed by orange and brown CLAYEY SILT, slight odor, dry, some organic matter.
5–10	2			1.8	ML		Same a previous.
10–15	3			1.4	ML		Same as previous.
15–20	4			1.3	ML		Orange and yellow CLAYEY SILT, softer, dry.
20–25	5			1.9	ML		Same as previouswith more saprolitic structure and some mica, soft.
25–30	6			1.5	ML		Same as previous, slightly moist.
30–35	7			1.6			White/tan, silty saprolite with black micas, very moist/wet soft.

GAIATECH BORING LOG - GP-14

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–1					ML		Concrete surface (4") followed by red/orange CLAYEY SILT, dry.
1–5	1			4.3	ML		Same a previous with gray silts and some organic matter.
5–10	2			115	ML		Orange, brown CLAYEY SILT, hard, dry, slight sweet odor.
10–15	3			23.9			
15–20	4			6.9	ML		Same as above, more red/orange color, no odor.
20–25	5			20.6			
25–30	6			10.3	ML		orange and black CLAYEY SILT, saprolitic structure, slightly moist, soft.
30–33	7			20.8	ML		Same as previous, moist/wet.
33–35							Tan, brown, silty saprolite, some micas, rock texture, moist/wet.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-15

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			2.0	ML		Concrete surface (4") followed by orange/brown CLAYEY SILT, dry.
5–10	2			11.2			
10–15	3			15.5	ML		Same as above, strong organic odor.
15–20	4			11.3			
20–25	5			10.1	ML		Ornage and white CLAYEY SILT, saprolitic, soft, dry.
25–30	6			15.3	ML		Same as previous, moist.
30–35	7			23.5			Pink, tan, CLAYEY SILT, saprolitic, moist, rock texture.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-16

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			2.0	ML		Concrete surface (4") followed by orange/brown CLAYEY SILT, dry.
5–10	2			11.2	ML		Concrete surface (4") followed by orange/brown CLAYEY SILT, dry.
10–15	3			15.5	ML		Same as above, slight odor.
15–20	4			11.3	ML		Same as above, strong "sweet" odor at 15 ft. to 20 ft.
20–25	5			10.1	ML		Same as above, strong "sweet" odor at 15 ft. to 20 ft.
25–30	6			15.3	ML		brown, Same as previous, slightly moist, slight "sweet" odor.
30–35	7			23.5			Orange and black saprolytic silts, some micas, moist, slight organic odor.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-17

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.5	ML		Concrete surface (4") followed by orange/brown CLAYEY SILT, dry.
5–10	2			0.8			
10–15	3			0.9	ML		Same as above, slight odor.
15–20	4			0.7	ML		Orange and tan CLAYEY SILT, saprolytic, soft.
20–25	5			0.8			
25–30	6			1.0	ML		Same as above with some sand, low plasticity very soft.
30–35	7			1.1			White, tan, silty saprolite, some mica, soft moist.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-18

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION

Date/Time Started	: 11/14/12
Date/Time Completed	: 11/14/12
Total Depth of Boring	: 30 ft bgs
Total Depth of Well	: 30 ft bgs

Logged By	: Chris M. O'Brien, P.G.
Drilling Method	: Geoprobe
Hole Diameter	: 3 inch
Drilling Company	: SC Soil Investigations
Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.9	ML		Concrete surface (4") followed by orange slightly CLAYEY SILT, hard, dry.
5–8	2			0.7			
8–23	3, 4, 5			1.4, 1.4, 1.8	ML		Orange and yellow CLAYEY SILT, soft.
23–24					ML		White and tan CLAYEY SILT, saprolytic, soft, dry.
24–25					ML		Black CLAYEY SILT, soft.
25–30	6			2.3			White, tan, black, silty saprolite, moist.

Boring Terminated at 30 feet.

GAIATECH BORING LOG - GP-19

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/14/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/14/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–13	1, 2, 3			1.4, 2.2, 6.4	ML		Concrete surface (4") followed by orange and brown slightly CLAYEY SILT, hard, dry.
13–22	4			6.6	ML		Orange and tan CLAYEY SILT with saprolite structure, dry, soft, some micas.
22–26	5			6.7	ML		Same as above, mositure content increasing.
26–29	6			7.8	ML		Dark orange and black slightly CLAYEY SILT, saprolite structure, moist, some mica.
29–33	7			2.1			Same as above, slightly harder, less moist to dry.
33–35							Brown and white saprolitic silts with litttle clay, moist, rock structure.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-20

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION

Date/Time Started	: 11/14/12
Date/Time Completed	: 11/14/12
Total Depth of Boring	: 35 ft bgs
Total Depth of Well	: 35 ft bgs

Logged By	: Chris M. O'Brien, P.G.
Drilling Method	: Geoprobe
Hole Diameter	: 3 inch
Drilling Company	: SC Soil Investigations
Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.5	CL		Concrete surface (4") followed by orange and red SILTY CLAY.
5–6					SM		Brown SILTY SAND, some clay.
6–10	2			1.4	CL		Orange and brown SILTY CLAY, some sand.
10–29	3, 4, 5, 6			1.8, 4.3, 2.6, 3.2	ML		Orange and brown CLAYEY SILT.
29–35	7			7.2			White and orange silts with saprolitic strructure, some micas, slightly moist to moist.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-21

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION

Date/Time Started	: 11/14/12
Date/Time Completed	: 11/14/12
Total Depth of Boring	: 35 ft bgs
Total Depth of Well	: 35 ft bgs

Logged By	: Chris M. O'Brien, P.G.
Drilling Method	: Geoprobe
Hole Diameter	: 3 inch
Drilling Company	: SC Soil Investigations
Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			2.2	CL		Concrete surface (4") followed by red and brown CLAYEY SILT, dry.
5–10	2			4.5	CL		
10–15	3			15.4	CL		
15–20	4			20.0	ML		Orange and yellow CLAYEY SILT, dry, soft, slight odor.
20–25	5			20.1	ML		
25–30	6			21.2	ML		Orange, pink slightly CLAYEY SILT, saprolite structure, some micas, dry, slightl organic odor.
30–35	7			53.1	ML		Same as above with more mica, moist, some white silts, slight odor.

Boring Terminated at 35 feet.

GAIATECH BORING LOG - GP-22

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			3.8	CL		Asphalt surface followed by red and brown CLAYEY SILT, dry.
5–10	2			207	ML		Orange, gray, red, brown, CLAYEY SILT, moist.
10–15	3			124	ML		Orange, yellow, red, brown CLAYEY SILT.
15–20	4			27	ML		Brown, red, CLAYEY SILT, some sand.
20–25	5			31.4	CL		Orange, yellow SILTY CLAY, saprolite structure, some sands and micas.
25–30	6			20.7	CL		

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-23

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			3.7	SM		Asphalt surface followed by gravel and SILTY SAND.
5–10	2			6.2	CL		Orange and yellow SILTY CLAY.
10–15	3			14.2	CL		Same as above with some organic debris.
15–20	4			7	CL		Same as above with slight "sweet" odor.
20–25	5			10.3	CL		Same as previous.
25–30	6			5.8	CL		Red, orange, and yellow SILTY CLAY.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-24

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.5	CL		Asphalt surface followed by red and orange SILTY CLAY.
5–10	2			1.1	CL		Orange and gray SILTY CLAY, some organic debris, some sand, no odor.
10–15	3			1.3	CL		Orange and yellow mottled SILTY CLAY, softer.
15–20	4			1.1	CL		Ornage and yellow mottled SILTY CLAY, some sand.
20–25	5			1.3	SM		Orange and gray SILTY SAND, some clay, soft, moist.
25–30	6			1.1	SM		Same as previous.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-25

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			3.6	CL		Gravel surface followed by red and brown SILTY CLAY.
5–10	2			1.0	CL		Brown and gray SILTY CLAY.
10–15	3			1.7	CL		Red, orange, SILTY CLAY, hard.
15–20	4			0.6	CL		Brown, gray, SILTY CLAY, soft, moist.
20–25	5			1.0	SM		Red, orange SILTY CLAY, hard, saprolite structure.
25–30	6			3.0	SM		Same as previous with more rock-like structure.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-26

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			2.2	CL		Orange, brown, SILTY CLAY, some sand, some organic debris.
5–10	2			0.3	CL		Orange and tan SILTY CLAY.
10–15	3			0.5	CL		Same as above with some sand, saprolitic structure present.
15–20	4			0.6			
20–23	5			0.4	CL		Tan SILTY CLAY, with some sand, moist.
23–25					CL		Red, orange SILTY CLAY, hard, saprolite structure.
25–30	6			0.1	CL		Brown, tan, SILTY CLAY, some sand, moist.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-27

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.5	CL		Orange, brown, SILTY CLAY, topsoil, some sand, some organic debris.
5–10	2			0.1	CL		Orange and tan SILTY CLAY, hard.
10–15	3			1.9	CL		
15–20	4			0.2	CL		Tan SILTY CLAY, saprolite structure.
20–25	5			1.0	CL		
25–30	6			0.4	CL		Same as above, moist. Brown, tan, SILTY CLAY, some sand, moist.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-28

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.2	CL		Brown, red, SILTY CLAY, topsoil, some sand, organics/grass/roots.
5–10	2			0.1	CL		Red, orange, SILTY CLAY, hard, some black iron oxide stains.
10–15	3			0.3			
15–20	4			0.7	CL		Tan SILTY CLAY, very hard.
20–25	5			0.0			
25–30	6			0.0	MH		White, gray SANDY SILT, some fine sands, saprolite structure, moist.

Boring Terminated at 30 ft.

GAIATECH BORING LOG - GP-29

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-2

FUNCTION INFORMATION			
Date/Time Started	: 11/8/12	Logged By	: Chris M. O'Brien, P.G.
Date/Time Completed	: 11/8/12	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.3	CL		Red, brown, SILTY CLAY, some sand, organic matter.
5–10	2			0.5	CL		Orange, brown SILTY CLAY, with organic matter (old topsoil).
10–15	3			0.0	CL		Red, orange SILTY CLAY, hard.
15–20	4			0.0			
20–25	5			0.2	CL		Orange, yellow SILTY CLAY, moist, saprolite structure.
25–30	6			0.0			

Boring Terminated at 30 ft.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-30

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.1	ML		Red/orange CLAYEY SILT; odor.
5–10	2			0.7	ML		
10–15	3			0.7	ML		
15–20	4			0.5	ML		
20–25	5			0.3	ML		
25–28	6			0.9	ML		
28–35	7			0.7	ML		Red, orange, brown CLAYEY SILT, saproliet, slightly plastic, no odor.

Boring Terminiated at 35 feet.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-31

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 27 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 27 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Same geology as GP-32.
1	1			0.1			
2							
3							
4							
5	2			0.5			
6							
7							
8							
9							
10	3			2.1	ML		
11							
12							
13							
14							
15	4			1.3			
16							
17							
18							
19							
20	5			1.7			
21							
22							
23							
24							
25	6			1.3			
26							
27							Boring Teminated - Refusal on Rock.
28							

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-32

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION			
Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 27 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 27 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–3	1			0.1	ML		Asphalt cover, crush n run gravels / SANDY SILTS; Followed by red/orange CLAYEY SILT; no odor, fill, slightly plastic.
4–5					CL		Gray/orange, CLAYEY SILT, native, plastic, no odor.
5–10	2			0.5	ML		Red/orange and tan/yellow CLAYEY SILT, native, plastic, no odor.
11–12					ML		SAND, Poorly Graded, Black/gray SILTY CLAY, with organics, plastic, slight organic odor.
10–15	3			2.1	ML		Red/orange CLAYEY SILT, slight sweet odor at 17 to 18 ft.
15–18	4			1.3	ML		
18–25	5			1.7	ML		Saprolitic CLAYEY SILT, soft, no odor, white, tan, orange.
25–27	6			1.3			

Boring Teminated - Refusal on Rock.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-33

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13
Date/Time Completed	: 2/12/13
Total Depth of Boring	: 30 ft bgs
Total Depth of Well	: 30 ft bgs
Logged By	: William H. Lucas, P.G.
Drilling Method	: Geoprobe
Hole Diameter	: 3 inch
Drilling Company	: SC Soil Investigations
Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–2							Concrete and base material.
2–5	1			1.5	ML		Red, orange CLAYEY SILT, no odor.
5–10	2			2.5	ML		
10–15	3			4.9	ML		
15–20	4			4.8	ML		
20–25	5			4.0	ML		
25–30	6			2.0	ML		Brown, tan, white, black CLAYEY SILT, saprolite, no odor.

Boring Terminated at 30 ft.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-34

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.4	ML		Red, orange CLAYEY SILT, no odor.
5–10	2			1.8	ML		
10–15	3			2.6	ML		
15–20	4			2.3	ML		
20–25	5			2.7	ML		
25–30	6			2.4	ML		Brown, tan, white, black CLAYEY SILT, saprolite, moist, no odor.
30–35	7			2.4	ML		

Boring Terminated at 35 ft.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-35

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.5	ML		Red, orange CLAYEY SILT, no odor.
5–10	2			1.7	ML		
10–15	3			2.1	ML		
15–20	4			2.4	ML		
20–25	5			2.5	ML		
25–30	6			1.2	ML		
28–35	7			1.7	ML		Red, orange, tan, black, CLAYEY SILT saprolite, no odor.

Boring Terminated at 35 ft.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-36

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION			
Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 30 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			2.5	ML		Red, orange CLAYEY SILT, no odor.
5–10	2			1.7	ML		
10–15	3			1.6	ML		
15–20	4			2.4	ML		
20–25	5			2.6	SM		Orange, tan, CLAYEY SILT with some fine sand, no odor, moist.
25–30	6			1.9	SM		

Boring Terminated at 30 ft.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-37

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			1.6	ML		Red, orange CLAYEY SILT, very hard, no odor.
5–10	2			2.4			
10–15	3			2.7	ML		Same as above, less hard, no odor.
15–20	4			1.7			
20–25	5			1.9	ML		Red, white, tan CLAYEY SILT, no odor.
25–30	6			2.4			
30–35	7			1.6	ML		Red, orange, tan, black CLAYEY SILT, saprolite, no odor.

boring Terminated at 35 Feet.

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH BORING LOG - GP-38

(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION

Date/Time Started	: 2/12/13	Logged By	: William H. Lucas, P.G.
Date/Time Completed	: 2/12/13	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 3 inch
Total Depth of Well	: 35 ft bgs	Drilling Company	: SC Soil Investigations
		Sampling Method	: Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–5	1			0.5	ML		Red, orange CLAYEY SILT, no odor.
5–10	2			0.7	ML		
10–15	3			1.1	ML		
15–20	4			0.7	ML		
20–25	5			1.7	ML		
25–30	6			1.5	ML		
28–35	7			1.9	ML		Tan, orange CLAYEY SILT, saprolite, no odor, biotite.

boring Terminated at 35 Feet.

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-39
Project:	ECI Elon	**Date Started:**	5/5/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/5/14
Project Number:	0235393	**Northing:**	856056.9364
Logged By:	Greg Kanellis	**Easting:**	1847129.1559

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	-			Concrete, then coarse gravel
	CL			Silty sandy CLAY, brownish red, moist, dense, medium plasticity
1.0	CL	0		Silty CLAY, red, damp, dense, medium plasticity
2.0	CL		Soil	
3.0	CL	0		
4.0	CL			
5.0	CL	0		
6.0	CL			
7.0	CL	0		
8.0	CL			
9.0	CL	0		
10.0	CH		Soil	Silty CLAY, orangish red, damp, dense, high plasticity
11.0		0		
12.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	11'
Drilling Method:	Hand Auger	**Screened Interval:**	NA
Drilling Equipment:	NA	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	2"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-40
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856260.9843
Logged By:	Greg Kanellis	**Easting:**	1847161.8690

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	-			Concrete
2.0	ML	9.3		Clayey SILT, red to olive, dry, medium dense, slight plasticity
4.0		25.1		
6.0	ML	18.8	Soil & Dup	Clayey SILT, red, dry, medium dense, low plasticity
8.0	ML	13.1		Clayey SILT, dark brown to red, dry, medium dense, low plasticity
10.0	ML	9.8		Clayey SILT, dark brown to red, dry, dense, low plasticity
12.0	ML	9.2		Clayey SILT, red to tan, dry, dense, low plasticity
14.0	ML	7.8		Clayey SILT, red, dry, dense, medium plasticity
16.0				
18.0		9.4	Soil	
20.0	ML	7.3		Clayey SILT, red, dry, dense, low plasticity, black deposits
22.0				
24.0		8.2		
26.0	ML	4		Clayey SILT, red to orange, damp, medium dense, low plasticity, black deposits
28.0		10		
30.0	CH	5.3		Silty CLAY, red to light brown & black, moist, loose, high plasticity
32.0				
34.0		15.3		
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-41
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856248.5853
Logged By:	Greg Kanellis	**Easting:**	1847154.1968

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	-			Concrete
2.0	ML	0.8		Clayey SILT, red to olive, dry, loose, low plasticity
4.0	ML	1.9		
6.0	ML	3.2	Soil & Dup	Clayey SILT, reddish orange, dry, dense, low plasticity
8.0	ML	6.2		Clayey SILT, dark brown, dry, dense, low plasticity
10.0	ML	2.5		Clayey SILT, light brown to red, dry, dense, low plasticity
12.0	ML			
14.0	ML	1.2		
16.0	ML	4.7		Clayey SILT, red, dry, dense, low plasticity
18.0	ML	7.8		
20.0	ML	3.1		Clayey SILT, red, dry, medium dense, low plasticity
22.0	ML			
24.0	ML	7.2	Soil (held)	Clayey SILT, reddish orange, damp, loose, slight plasticity, black deposits
26.0	ML	5		Clayey SILT, reddish orange, damp, loose, low plasticity, black deposits
28.0	ML	7.3		Clayey SILT, orange to tan, damp, loose, slight plasticity
30.0	ML			Clayey SILT, red to tan, moist, loose, low plasticity
32.0				
34.0	CH			Silty CLAY, red to orange, moist, loose, high plasticity
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-42
Project:	ECI Elon	**Date Started:**	5/7/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856282.6684
Logged By:	Greg Kanellis	**Easting:**	1847167.1829

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0				Concrete
2.0	ML	1.9		Clayey SILT, red, dry, loose, low plasticity
4.0	ML	12.6		Clayey SILT, red to tan, dry, loose, low plasticity
6.0	ML	15.6	Soil	Clayey SILT, red to tan, dry, dense, low plasticity
8.0		7.9		
10.0	ML	7.6		Clayey SILT, red to brown, dry, dense, low plasticity, black deposits
12.0				
14.0		4.3		
16.0	ML	5.6		Clayey SILT, red, dry, dense, low plasticity
18.0		8.1		
20.0	ML	10.8	Soil	Clayey SILT, red, dry, medium dense, low plasticity, black deposits
22.0				
24.0		6		
26.0	ML	4.3		Clayey SILT, red, dry, loose, medium plasticity, black deposits
28.0				
30.0	ML	8.2		Clayey SILT, red to tan mottled, moist, loose, medium plasticity
	ML	5.6		Clayey SILT, red, moist, medium dense, low plasticity
32.0	ML			Clayey SILT, reddish orange, wet, loose, medium plasticity, black deposits
34.0		9.6		
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-43
Project:	ECI Elon	**Date Started:**	5/7/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856281.8311
Logged By:	Greg Kanellis	**Easting:**	1847183.3103

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	0.3		Clayey SILT, red, dry, medium dense, low plasticity
2.0				
	ML	0.4		Clayey SILT, red to tan, dry, medium dense, low plasticity
4.0				
6.0	ML	5.7		Clayey SILT, red to tan, dry, dense, low plasticity
8.0		8.4	Soil	
10.0	ML	7.6		Clayey SILT, red to dark brown, dry, dense, medium plasticity
12.0				
14.0		7.2		
16.0	ML	8.9		Clayey SILT, red, dry, dense, medium plasticity
18.0		4.9		
20.0	ML	6.9		Clayey SILT, red, dry, medium dense, low plasticity
22.0				
24.0	ML	5.9		Clayey SILT, red to white, dry, medium dense, low plasticity, black deposits
26.0	ML	3.7		Clayey SILT, red, damp, loose, medium plasticity
28.0		7.1	Soil	
	ML			Clayey SILT, orange to tan, damp, loose, medium plasticity, black deposits
30.0	ML	4.4		Clayey SILT, red to light brown, moist, loose, medium plasticity
32.0				
34.0	MH	6		Fine sandy SILT, red to white, wet, loose, medium plasticity
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-44
Project:	ECI Elon	**Date Started:**	5/7/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856297.0765
Logged By:	Greg Kanellis	**Easting:**	1847149.8955

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	0.4		Clayey SILT, red, dry, medium dense, low plasticity
2.0				
4.0	ML	0.6		Clayey SILT, red to tan, dry, medium dense, low plasticity
6.0	ML	4.6	Soil	Clayey SILT, red, dry, dense, low plasticity
8.0		3.7		
10.0	ML	2		Clayey SILT, red to light brown, dry, very dense, low plasticity
12.0				
14.0		2.7		
16.0		2.8		
	ML			Clayey SILT, red, dry, dense, low plasticity
18.0	MH	2.6		Clayey sandy SILT, red to white, dry, medium dense, slight plasticity
20.0	MH	2.3		Clayey sandy SILT, red to orange, dry, medium dense, low plasticity
22.0				
24.0		4.5	Soil	
26.0	ML	2.8		Clayey SILT, red to white, damp, medium dense, low plasticity, black deposits
28.0	ML	3.1		Clayey SILT, red to orange, moist, loose, low plasticity, black deposits
30.0	ML	5.5		Clayey SILT, orange to tan, wet, loose, medium plasticity, black deposits
32.0				
34.0		7.4		
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-45
Project:	ECI Elon	**Date Started:**	5/7/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/7/14
Project Number:	0235393	**Northing:**	856344.8338
Logged By:	Greg Kanellis	**Easting:**	1847183.8208

Depth	PID (ppm)	Lab Sample Collected	Lithologic Description	Well Construction Details
0.0	0		Concrete	
			Clayey SILT, red, dry, medium dense, low plasticity	
	0		Clayey SILT, red to tan, dry, medium dense, low plasticity	
4.0				
	0		Clayey SILT, red, dry, dense, low plasticity	
8.0				
	0.5			Native Fill
	1.7		Clayey SILT, red to dark brown, dry, dense, low plasticity	
12.0				
	1.5			
16.0	1.7		Clayey SILT, red, damp, medium dense, low plasticity	
	1.2			
20.0				
	1.6		Clayey SILT, orange to white, damp, loose, low plasticity	
24.0	1			
	0.7			1" Sch. 40 PVC Casing
28.0				
	1.6			
	1.7		Clayey SILT, orange to olive, moist, loose, low plasticity	
32.0				
	2.8			
36.0		Water	Clayey SILT, orange to tan, moist, loose, slight plasticity	1" Sch. 40 PVC 0.010" Slot Screen
40.0			Sandy SILT, tan to olive, wet, loose, slight plasticity	
44.0				
48.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	45'
Drilling Method:	Direct Push	**Screened Interval:**	Temp 31-41'
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-46
Project:	ECI Elon	**Date Started:**	5/8/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/8/14
Project Number:	0235393	**Northing:**	856325.4504
Logged By:	Greg Kanellis	**Easting:**	1847059.1231

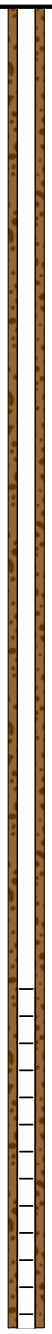
Depth	PID (ppm)	Lab Sample Collected	Lithologic Description	Well Construction Details
0.0	1.2		Clayey SILT, red, dry, medium dense, low plasticity	
2.0	0.7			
4.0	1.4		Clayey SILT, red, dry, dense, medium plasticity	
6.0				
8.0	1.2			
10.0	1.5		Clayey SILT, red, dry, medium dense, low plasticity	Native Fill
12.0				
14.0	1			
16.0	1.8		Clayey SILT, red, damp, medium dense, low plasticity	
18.0	1.5			
20.0	1.7		Clayey SILT, orange to white, damp, loose, slight plasticity	
22.0				
24.0	1.8			1" Sch. 40 PVC Casing
26.0	1.8		Clayey SILT, pink to white, damp, loose, slight plasticity	
28.0	1.5			
30.0	2.1	Water	Clayey SILT, pink to olive/light brown, moist, loose, medium plasticity	
32.0	1.7			
34.0			Clayey SILT, pink/light to dark brown/white, wet, loose, slight plasticity, black deposits	1" Sch. 40 PVC 0.010" Slot Screen
36.0			Clayey SILT, pink to brown, moist, loose, low plasticity	
38.0			Clayey sandy SILT, pink to brown, wet, loose, low plasticity	
40.0				
42.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	40'
Drilling Method:	Direct Push	**Screened Interval:**	Temp 29.5-39.5'
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-47
Project:	ECI Elon	**Date Started:**	5/8/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/8/14
Project Number:	0235393	**Northing:**	856259.3095
Logged By:	Greg Kanellis	**Easting:**	1847058.9833

Depth	PID (ppm)	Lab Sample Collected	Lithologic Description	Well Construction Details
0.0	Not Monitored		Lithology not logged - Direct push to depth for collection of groundwater sample.	
2.0				
4.0				
6.0				
8.0				
10.0				Native Fill
12.0				
14.0				
16.0				
18.0				
20.0				
22.0				
24.0				1" Sch. 40 PVC Casing
26.0				
28.0				
30.0		Water		
32.0				
34.0				1" Sch. 40 PVC 0.010" Slot Screen
36.0				
38.0				
40.0				



Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	39'
Drilling Method:	Direct Push	**Screened Interval:**	Temp 29-39'
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-48
Project:	ECI Elon	**Date Started:**	5/8/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/8/14
Project Number:	0235393	**Northing:**	856253.9201
Logged By:	Greg Kanellis	**Easting:**	1847011.8926

Depth	PID (ppm)	Lab Sample Collected	Lithologic Description	Well Construction Details
0.0	Not Monitored		Lithology not logged - Direct push to depth for collection of groundwater sample.	
4.0				
8.0				Native Fill
12.0				
16.0				
20.0				
24.0				2" Steel DPT Rods
28.0				
32.0				
36.0		Water		2" Steel DPT Sampler
40.0				
44.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	43'
Drilling Method:	Direct Push	**Screened Interval:**	DPT 38-43'
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-49
Project:	ECI Elon	**Date Started:**	5/8/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/8/14
Project Number:	0235393	**Northing:**	856295.6410
Logged By:	Greg Kanellis	**Easting:**	1847097.0476

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	0.6		Clayey SILT, red, dry, medium dense, low plasticity
2.0		0		
4.0				
6.0	ML	3	Soil	Clayey SILT, red, dry, dense, medium plasticity
8.0		3.9		
10.0	ML	2.7		Clayey SILT, red to brown, dry, dense, medium plasticity
12.0				
14.0		3.6		
16.0	ML	6.6		Clayey SILT, red, dry, dense, low plasticity
18.0				
	ML	4.4		Clayey SILT, red to white, dry, medium dense, slight plasticity
20.0	MH	2.6		Clayey sandy SILT, red, dry, medium dense, low plasticity
22.0				
24.0	MH	4.4		Clayey sandy SILT, tan/red/white, dry, loose, slight plasticity
26.0	ML	5.9		Clayey SILT, red to brown, damp, loose, medium plasticity, black deposits
28.0		7.2	Soil	
30.0	ML	4.6		Clayey SILT, red to brown, moist, loose, medium plasticity, black deposits
32.0				
34.0	ML	3.4		Clayey SILT, red to light brown, wet, loose, medium plasticity, black deposits
36.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	35'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	GP-50
Project:	ECI Elon	**Date Started:**	5/8/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/8/14
Project Number:	0235393	**Northing:**	856132.7992
Logged By:	Greg Kanellis	**Easting:**	1847080.3941

Depth	PID (ppm)	Lab Sample Collected	Lithologic Description	Well Construction Details
0.0	Not Monitored		Lithology not logged - Direct push to depth for collection of groundwater sample.	
4.0				
8.0				Native Fill
12.0				
16.0				
20.0				
24.0				
28.0				1" Sch. 40 PVC Casing
32.0				
36.0				
40.0		Water		1" Sch. 40 PVC 0.010" Slot Screen
44.0				
48.0				
52.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	48'
Drilling Method:	Direct Push	**Screened Interval:**	Temp 38-48'
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	BG-1
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/6/14
Project Number:	0235393	**Northing:**	856399.1838
Logged By:	Greg Kanellis	**Easting:**	1847613.8632

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	Not Monitored		Clayey SILT, red, damp, medium dense, medium plasticity
5.0	ML		Soil	Clayey SILT, reddish orange, damp, loose, high plasticity
9.0	CL			Sandy CLAY, reddish orange, damp, loose, medium plasticity
10.0	CL			Sandy CLAY, orange, damp, loose, medium plasticity
13.0	CL		Soil	Silty CLAY, orange to brown, damp, loose, high plasticity, black deposits
15.0				
16.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	15'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	BG-2
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/6/14
Project Number:	0235393	**Northing:**	856316.8931
Logged By:	Greg Kanellis	**Easting:**	1847613.5234

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0 – 2.0	ML	Not Monitored		Clayey SILT, reddish orange, damp, medium dense, medium plasticity
2.0 – 5.0	ML		Soil	Clayey SILT, orange with olive & red striations, damp, medium dense, low plasticity
5.0 – 7.0	ML			Clayey SILT, orange with olive & red striations, damp, dense, low plasticity
7.0 – 10.0	MH			Clayey sandy SILT, red to tan, damp, loose, low plasticity
10.0 – 13.0	ML			Clayey SILT, red with black, moist, loose, low plasticity
13.0 – 15.0	SM		Soil	Silty fine SAND, orange to white, moist, loose, slight plasticity
15.0 – 16.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	15'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	BG-3
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/6/14
Project Number:	0235393	**Northing:**	856255.5598
Logged By:	Greg Kanellis	**Easting:**	1847548.3901

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0 – 2.0	ML	Not Monitored		Sandy SILT, orange to olive, damp, loose, slightly plastic
2.0 – 5.0	ML			Clayey sandy SILT, red to olive, damp, loose, low plasticity
5.0 – 8.0	ML		Soil	Clayey sandy SILT, red to olive, damp, medium dense, low plasticity
8.0 – 10.0	CL			Silty CLAY, red to olive, damp, dense, medium plasticity
10.0 – 12.5	CH			Silty CLAY, red to olive, moist, loose, high plasticity
12.5 – 15.0	ML		Soil	Sandy SILT, orange to white, moist, loose, medium plasticity
15.0 – 16.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	15'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	BG-4
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/6/14
Project Number:	0235393	**Northing:**	856219.3422
Logged By:	Greg Kanellis	**Easting:**	1847499.1232

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	Not Monitored		Sandy SILT, orange to tan, damp, loose, slight plasticity
2.0	ML			Clayey sandy SILT, orange to tan, damp, loose, low plasticity
5.0	ML		Soil	Clayey SILT, red to olive, damp, loose, low plasticity
7.0	CL			Silty CLAY, orange to tan, moist, medium dense, medium plasticity, black deposits
10.0	CH			Silty CLAY, orange to tan, moist, loose, high plasticity, black deposits
13.0	CH		Soil	Silty CLAY, red to orange, moist, medium dense, high plasticity, black deposits
15.0				
16.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	15'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	BG-5
Project:	ECI Elon	**Date Started:**	5/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/6/14
Project Number:	0235393	**Northing:**	856144.8155
Logged By:	Greg Kanellis	**Easting:**	1847455.3855

Depth	Lithology	PID (ppm)	Lab Sample Collected	Lithologic Description
0.0	ML	Not Monitored		Clayey SILT, reddish orange, damp, medium dense, medium plasticity
5.0	ML		Soil	Clayey SILT, red to tan, moist, loose, medium plasticity, black deposits
9.0	CL			Silty CLAY, reddish orange, moist, medium dense, medium plasticity, black deposits
10.0	CH			Silty CLAY, reddish orange, moist, loose, high plasticity, black deposits
14.0	CH		Soil	Silty CLAY, tan, moist, medium dense, high plasticity, black deposits
15.0				
16.0				

Drilling Contractor:	SAEDACCO	**Total Depth (ft):**	15'
Drilling Method:	Direct Push	**Screened Interval:**	NA
Drilling Equipment:	7822 DT	**Elevation (msl):**	n/a
Responsible Professional:	Chris Dennison		
Borehole Diameter:	3.25"		

ERM

GaiaTech, Inc.

Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG MW-1

(PAGE 1 TO 1)

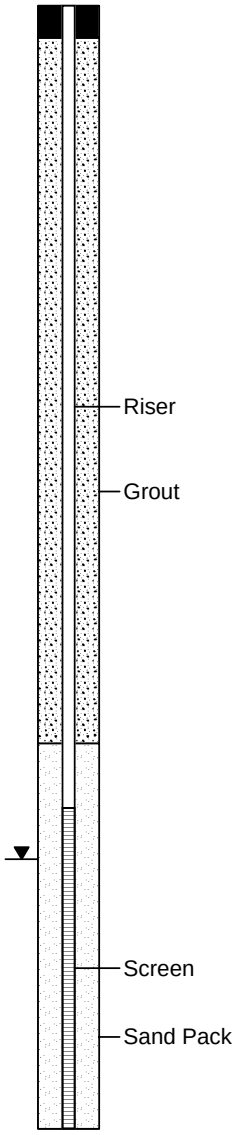
Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–2	1		90	0.1	SC		SANDY CLAY, tan (potential FILL), soft, dry, no odor, low plasticity
2–4	2			0.3			
4–6	3		100	0.2	ML-CL		CLAYEY SILT, red, trace sand, low plasticity, no odor
6–8	4			0	ML-CL		SILT, red to yellow-brown, little clay, firm, damp, no odor
8–10	5		100	0			
10–12	6			0			
12–14	7		90	0			
14–16	8			0			
16–18	9		100				
18–20	10			0			
20–22	11		100	0			
22–24	12			0			
24–26	13		100		ML-CL		SILT, red-yellow and brown, little clay, very soft, wet, no odor
26–28	14			0			
28–30	15		100	0			
30–32	16			0			

End of Boring: 40 ft

Well: MW-1
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-2

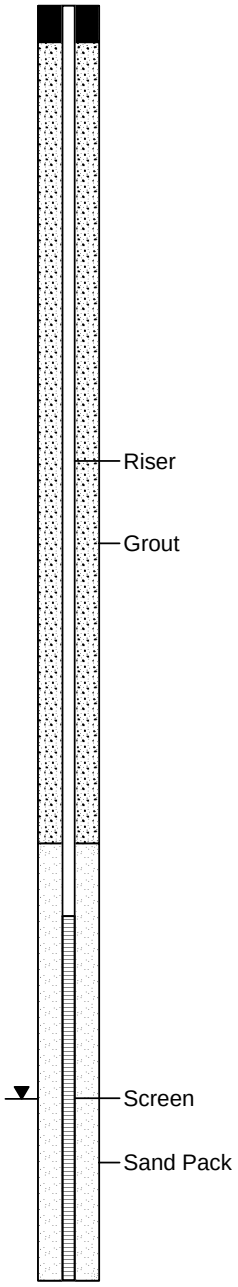
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 35 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		3" asphalt underlain by sand and gravel (FILL)
2	1		90	0	ML-CL		CLAYEY SILT, red, stiff, trace gravel and sand, no oder
4	2			0	ML		SILT, red, yellowish-brown, little clay, occasional sand seams 1"-4" thick, dry, no odor
6	3		100	0			
8	4			0			
10	5		100	0			
12							
14	6			0			
16	7		90	0	ML-CL		SANDY, CLAYEY SILT, white and red-brown, no odor, thick, dry
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0			
28	12			0	SC		SANDY SILT, little clay, white and brown, no odor, wet
30							
32	13		100	0			
34	14			0			
36							End of Boring: 35 ft

Well: MW-2
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-3

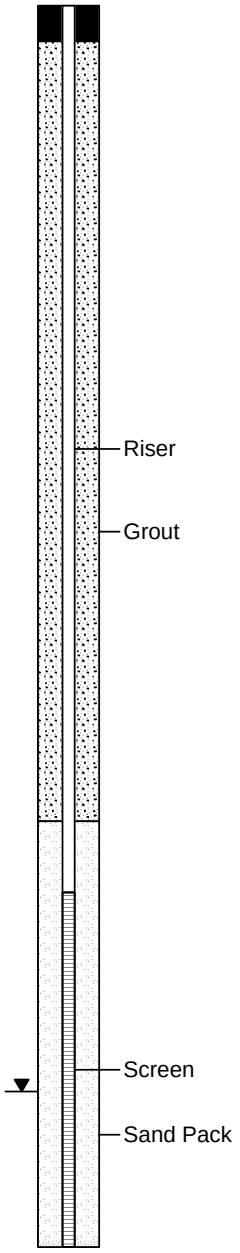
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 35 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" topsoil (FILL)
2	1		85	0	ML-CL		CLAYEY SILT, red, firm to stiff, trace sand and gravel, damp, no odor, low plasticity
4	2			0			
6	3		100	0	ML		CLAYEY SILT, red and yellowish-brown, soft, damp to dry, low plasticity, no odor, trace sand
8	4			0			
10	5		100	0			
12							
14	6			0			
16	7		100	0			
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0			
28	12			0			
30	13		100	0	ML-CL		CLAYEY SILT with sand, brown and black, stiff, 6" sandy clay seem at 32.5', wet, very soft
32							
34	14			0			
36							End of Boring: 35 ft
38							

Well: MW-3
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-4

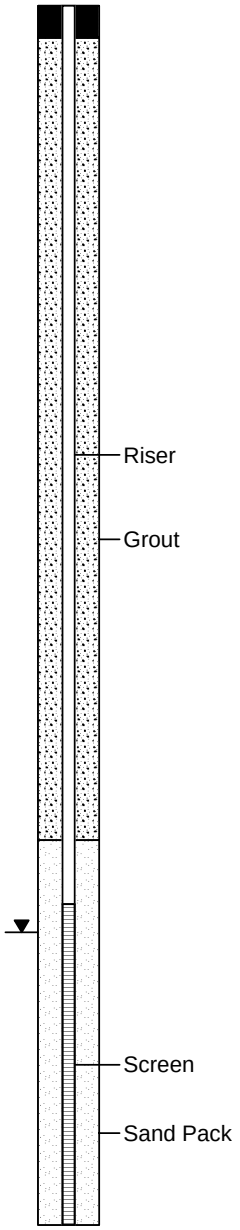
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" topsoil (FILL)
2	1		85	0	ML-CL		CLAYEY SILT, red-brown, stiff, dry, no odor, low plasticity
4	2			0			
6	3		100	0	ML-CL		CLAYEY SILT, red-brown, yellow, black and tan layered, no odor, low plasticity
8	4			0			
10	5		100	0			
12							
14	6			0			
16	7		100	0	ML		CLAYEY SILT, red-brown and grey-brown, soft, damp, no odor
18	8			0			
20	9		100	0			
22					ML		CLAYEY SILT, yellow-brown and grey, soft, damp, no odor
24	10			0			
26	11		100	0			
28	12			0			
30	13		100	0			
32							
34	14			0			
36	15		100	0			
38	16			0			
40							End of Boring: 40 ft
42							

Well: MW-4
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-5

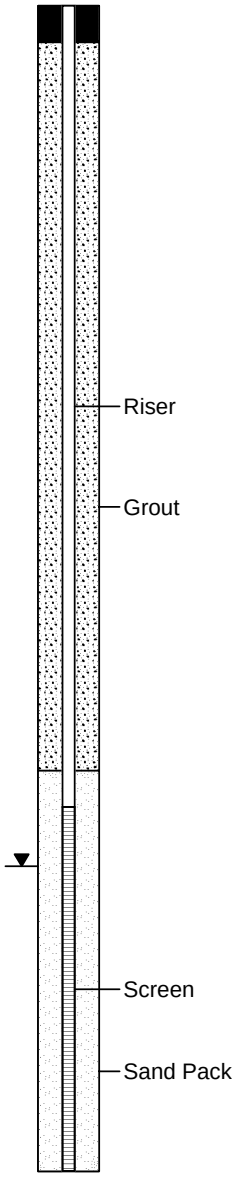
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 32 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 32 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0	1		90	0	AR		18" crushed stone, sand and clay (FILL), no odor
2					ML-CL		CLAYEY SILT, red to red and yellow, dry, no odor, low plasticity
4	2			0.3			
6	3		100	0			
8	4			0			
10	5		100	0	ML		CLAYEY SILT, red and yellowish-brown, soft, damp, no odor, low plasticity
12							
14	6			0	SM		SILTY SAND, white and orange, stone, dry, no odor
					ML-CL		CLAYEY SILT, red, yellow and black, soft, dry to moist
16	7		100	0			
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0			Wet, very soft at 27 ft
28	12			0			
30	13		100	0			
32							
34	14			0			
36							End of Boring: 35 ft

Well: MW-5
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-6

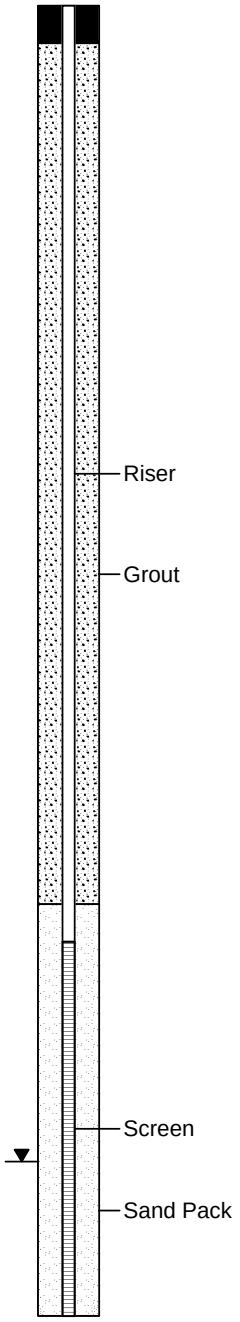
(PAGE 1 TO 1)

Engineered Controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 35 ft bgs	Hole Diameter	: 4 inches, 2-inch well
Total Depth of Well	: 35 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Macro-Core

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					AR		6" topsoil, no odor (FILL)
2	1		100	0.5	ML-CL		CLAYEY SILT, red and red-brown, stiff, dry, no odor, low plasticity
4	2			0.2			Red & yellow and tan, very stiff, no odor, low plasticity
6	3		100	0.1			
8	4			0			Red, yellow, tan, black, damp, low plasticity, no odor
10	5		100	0			
12							
14	6			0			
16	7		100	0			
18	8			0			
20	9		100	0			
22							
24	10			0			
26	11		100	0			
28	12			0			
30	13		100	0	SC		SILTY SANDY CLAY, tan, very soft, wet, low plasticity, no odor
32							
34	14			0	ML		CLAYEY SILT, yellowish-brown, soft, moist, no odor
36							End of Boring: 35 ft

Well: MW-6
Elev.:



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GaiaTech, Inc.
Environmental Planning for Business

Chicago, IL

GAIATECH BORING LOG - MW-7

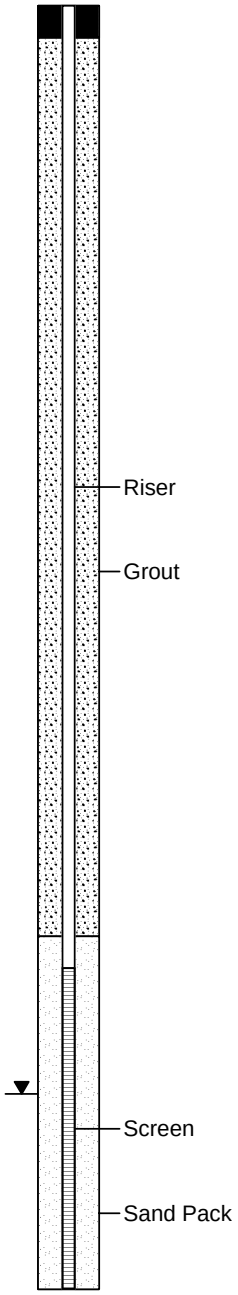
(PAGE 1 TO 1)

Engineered controls International, Inc.
100 Rego Drive
Elon, North Carolina
GaiaTech Project #B1116-420-0

FUNCTION INFORMATION			
Date/Time Started	: 7/19/11	Logged By	: Larry
Date/Time Completed	: 7/19/11	Drilling Method	: Geoprobe
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 2 inches
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Investigations
		Sampling Method	: Dual Tube

Depth (ft)	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–2	1		75	8.9	AR		4" asphalt underlain by crushed stone, sand and gravel (FILL)
2–4	2			10.2	ML-CL		CLAYEY SILT, red, trace sand, very stiff, damp, no odor, slight odor at water-table, low plasticity
4–6	3		85	4.2			
6–8	4			3.8			
8–10	5		100	26			
10–12	6			0.8			
12–14	7		100	6.3			Slight odor from 16-20 ft
14–16	8			7.5			
16–18	9		100	4.4			
18–20	10			4.5			
20–22	11		100	4.8			
22–24	12			3.9			
24–26	13		100	2.8			Yellow-brown and red from 30-40 ft
26–28	14			1.6			
28–30	15		100	1.8			
30–32	16			1.6			
32–34							
34–36							
36–38							
38–40							
40–42							End of Boring: 40 ft

Well: MW-7
Elev.:



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GAIATECH WELL LOG - MW-8

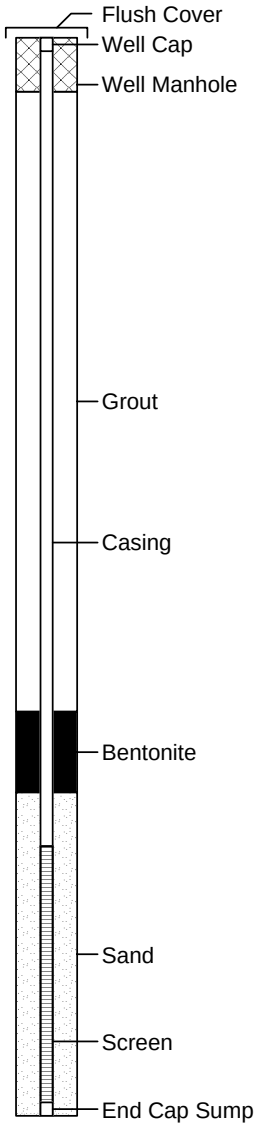
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/05/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/06/12	Drilling Method	: Direct Push
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
40							Boring Terminated at 40 ft.

Well: MW-8
Elev.: TBD



GAIATECH WELL LOG - MW-9

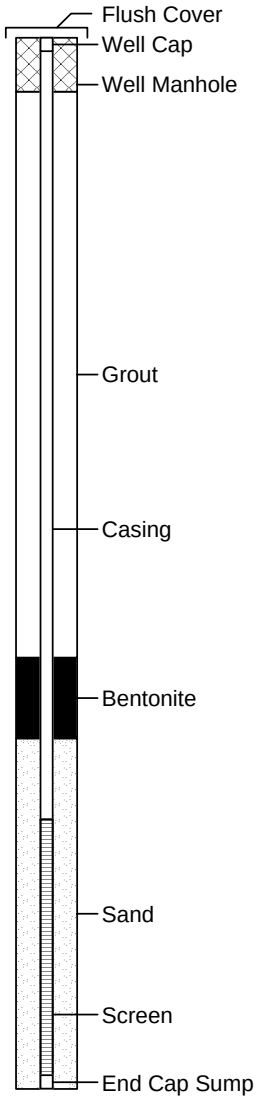
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/05/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/06/12	Drilling Method	: Direct Push
Total Depth of Boring	: 45 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 39 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
45							Tool Refusal at 45 ft. Borehole collapsed to 39 feet.

Well: MW-9
Elev.: TBD



GAIATECH WELL LOG - MW-10

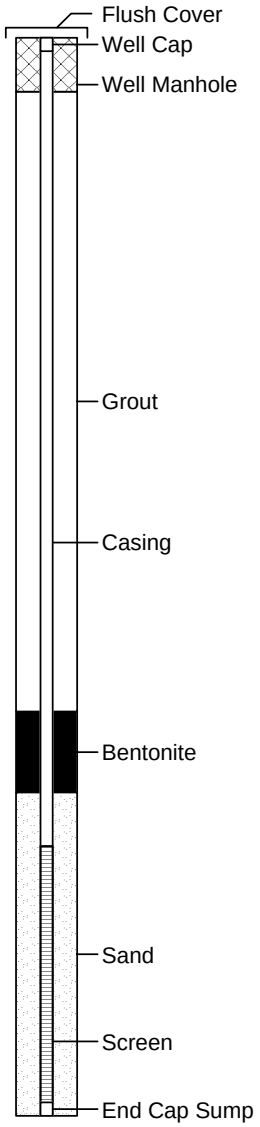
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/06/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/06/12	Drilling Method	: Direct Push
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
40							Boring Terminated at 40 ft.

Well: MW-10
Elev.: TBD



GAIATECH WELL LOG - MW-11

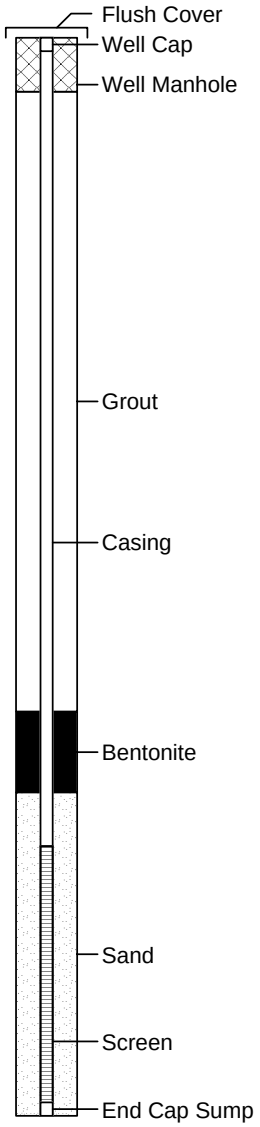
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/06/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/06/12	Drilling Method	: Direct Push
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
40							Boring Terminated at 40 ft.

Well: MW-11
Elev.: TBD



GAIATECH WELL LOG - MW-12

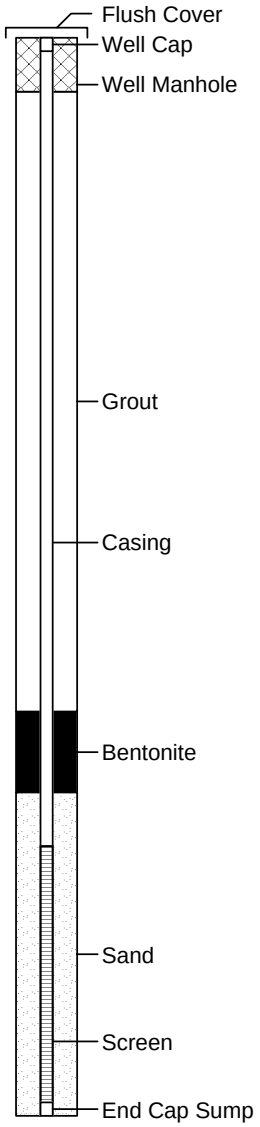
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/05/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/05/12	Drilling Method	: Direct Push
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 40 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
40							Boring Terminated at 40 ft.

Well: MW-12
Elev.: TBD



GAIATECH WELL LOG - MW-13

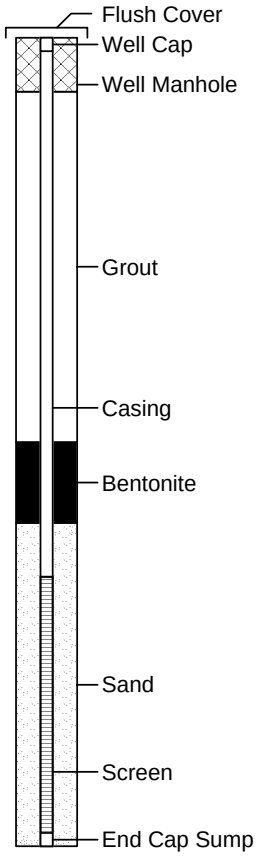
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/06/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/06/12	Drilling Method	: Direct Push
Total Depth of Boring	: 40 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 30 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Soil lithology not recorded.
40							Boring Terminated at 40 ft. Borehole collapsed to 30 feet.

Well: MW-13
Elev.: TBD



GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH WELL LOG - MW-14

(PAGE 1 TO 1)

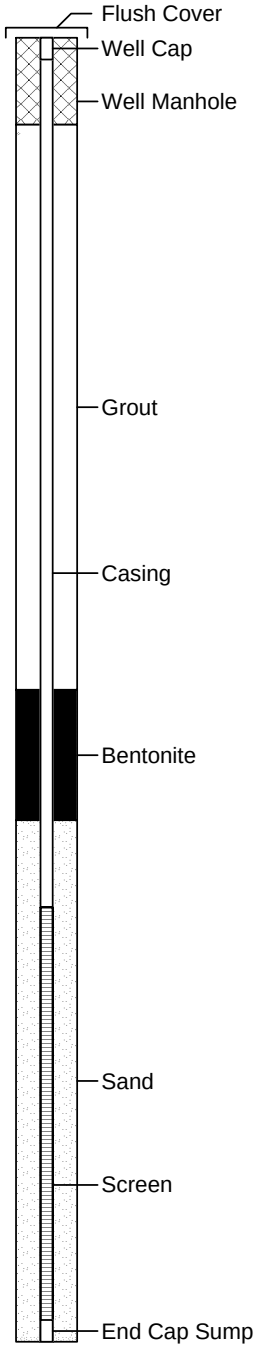
Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION			
Date/Time Started	: 02/11/13	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 02/11/13	Drilling Method	: Direct Push
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 30 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Lithology not recorded.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

Boring Terminated at 30 Feet.

Well: MW-14
Elev.:



GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH WELL LOG - MW-14

(PAGE 1 TO 1)

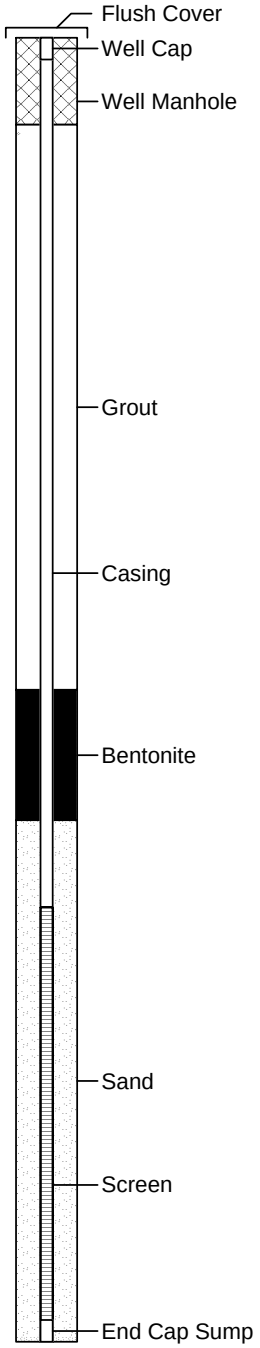
Engineered Controls International
100 Rego Drive
Elon, Alamance County, North Carolina
GaiaTech Project #150153.421.00

FUNCTION INFORMATION			
Date/Time Started	: 02/11/13	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 02/11/13	Drilling Method	: Direct Push
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 30 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0							Lithology not recorded.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							

Boring Terminated at 30 Feet.

Well: MW-15
Elev.:



GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH WELL LOG - MW-16

(PAGE 1 TO 1)

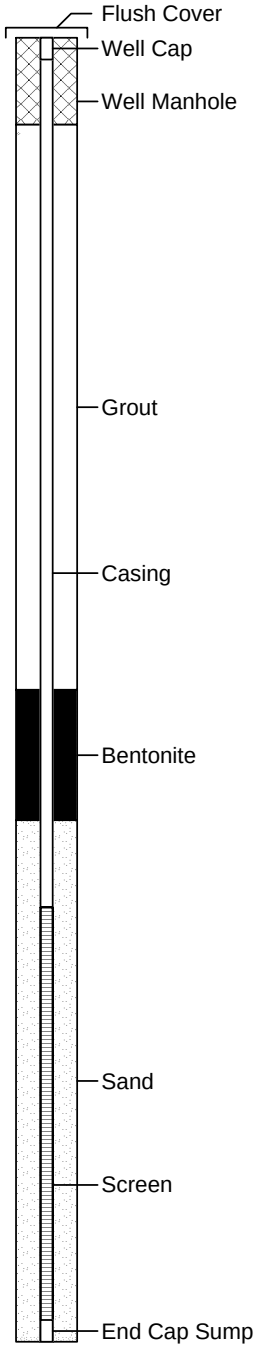
Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 02/11/13	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 02/11/13	Drilling Method	: Direct Push
Total Depth of Boring	: 30 ft bgs	Hole Diameter	: 4-in.
Total Depth of Well	: 30 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0–13					ML		Native surface with pinestraw, leaf litter followed by reddish orange CLAYEY SILT, dry.
13–18					CL		Grades to more orange, tan SILTY CLAY. Moist from 13 to 15 ft.
18–30					SM		White, tan SANDY SILT, moist to wet.

Boring Terminated at 30 ft.

Well: MW-16
Elev.:



GAIATECH WELL LOG - DW-1

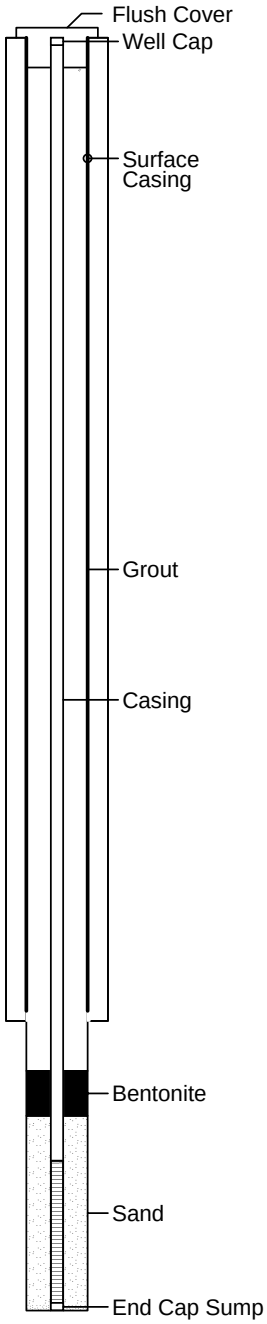
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 11/05/12	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 11/07/12	Drilling Method	: Air Rotary
Total Depth of Boring	: 85 ft bgs	Hole Diameter	: 6 inch / 4 inch
Total Depth of Well	: 85 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					CL		Asphalt surface followed by reddish-orange to brown/tan SILTY SANDY CLAY
62							Competent bedrock at 61 feet. Keyed into rock to 65 feet and set outer4-inch casing.

Well: DW-1
Elev.: TBD



Screen

GaiaTech, Inc.
Environmental Risk. Managed.

GAIATECH WELL LOG - DW-2

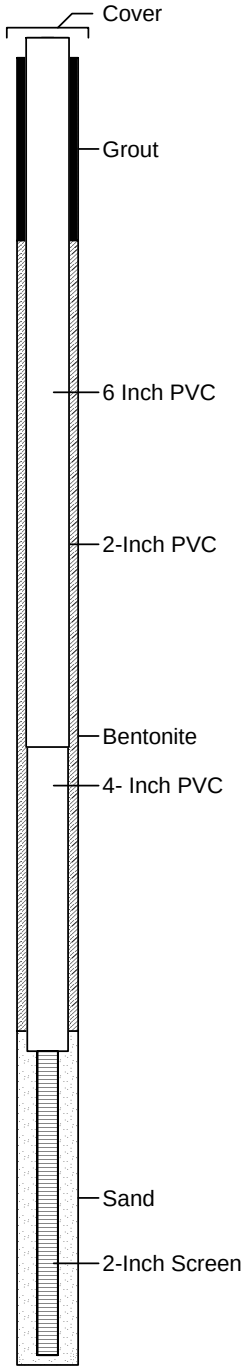
(PAGE 1 TO 1)

Engineered Controls International
100 Rego Drive
Elon, Alamanche County, North Carolina
GaiaTech Project #B1116-421-1

FUNCTION INFORMATION			
Date/Time Started	: 02/14/13	Logged By	: William H. Lucas, P. G.
Date/Time Completed	: 02/20/13	Drilling Method	: Air Rotary
Total Depth of Boring	: 85 ft bgs	Hole Diameter	: 6 inch / 4 inch
Total Depth of Well	: 85 ft bgs	Drilling Company	: Carolina Soil Invest.
		Sampling Method	: Soil Cuttings

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					ML		Asphalt surface followed by reddish-orange CLAYEY SILT.
65							Competent bedrock at 66 feet. Keyed into rock to 71 feet and set outer 6-inch casing.
75							Encountered water bearing fracture or fractures at 75 ft. and extending to 85 ft, then the bedrock becomes more competent with no apparent fractures from 85 to 100 ft. Set inner 4-inch casing from 0 to 100 ft.
100							grey, Hard, competent rock from 100 to 104 ft. Small soft zone at approx. 105. Hard, competent rock from 105 to 109 ft. Additional soft zone from 109 to 110 ft. Allowed tooling to sit for several minutes, then blew out the borehole. Only an insignificant amount of water produced.
125							Soft zone encountered at 122 ft and again at 124 ft. to 130 ft.
130							Boring terminated at 131 Feet.

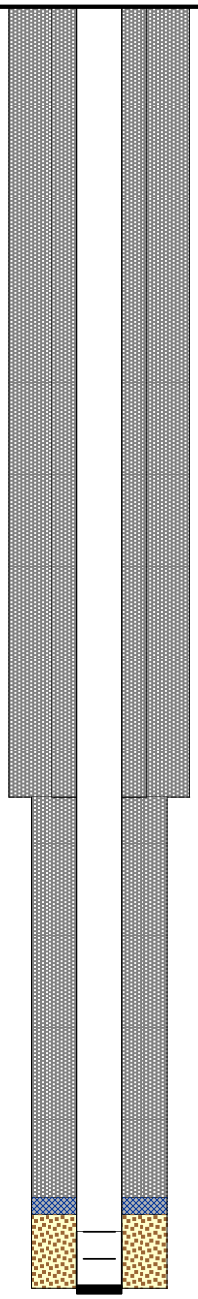
Well: DW-2
Elev.:



Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-2D
Project:	ECI Elon	**Date Started:**	10/6/14
Site Location:	Elon, North Carolina	**Date Completed:**	10/9/14
Project Number:	0235393	**Northing:**	856275.771
Logged By:	Frans Lowman	**Easting:**	1847308.843

Depth	Lithology	Lithologic Description
0	CH	Silty CLAY, reddish brown, damp, slight plasticity, minor fine sand
		Silty sandy CLAY, grayish brown, moist, slight plasticity
		Silty sandy CLAY, reddish brown, moist, slight plasticity
20		Silty sandy CLAY, grayish brown, moist, slight plasticity
	ML	Clayey sandy SILT, reddish brown, moist, slight plasticity
40		
		Clayey sandy SILT, reddish brown, wet, slight plasticity
60	CH	Silty CLAY, moist, light brown
	PWR	PARTIALLY WEATHERED ROCK
	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
80	BR	BEDROCK, competent, gray
100		
120		
	FBR	Fracture Zone
140	FBR	BEDROCK, competent, gray
		Fracture Zone
	BR	BEDROCK, competent, gray. 6" Casing set at 150'
		BEDROCK, competent, gray
	FBR	Fracture Zone
160	BR	BEDROCK, competent, gray
180		
200		
220	FBR	Fracture Zone
240		

Well Construction



Well Construction Details

Flush Grade Locking Cap

Portland/Bentonite Grout

8.25" Diameter Borehole

2" Sch. 40 PVC Casing

6" Sch. 40 PVC Casing
(Casing set at 140')

Bentonite Seal
Well Sand Filter Pack

2" Sch. 40 PVC 0.010" Slot Screen
End Cap

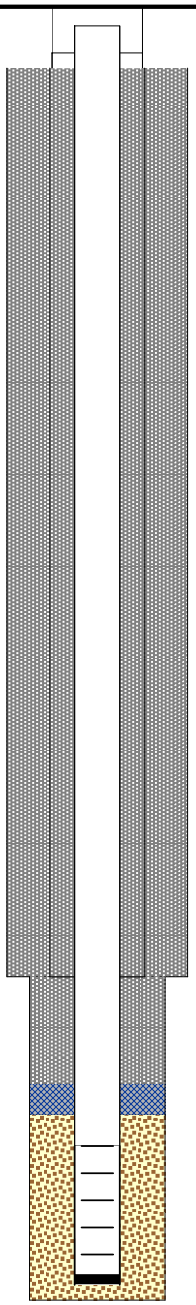
Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	150'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	227'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	217'-227'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	704.938

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-3
Project:	ECI Elon	**Date Started:**	5/12/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/14/14
Project Number:	0235393	**Northing:**	856400.0746
Logged By:	Chris Means	**Easting:**	1847607.0098

Depth	Lithology	Lithologic Description
4		
1	CH	Silty CLAY, red to medium brown, moist, high plasticity
6		
11		
16		
21	CH	Silty CLAY, medium brown, moist, high plasticity
26		
31	CH	Silty CLAY, light to medium brown, wet, high plasticity (Auger Refusal)
36		
41		
46		
51	PWR	PARTIALLY WEATHERED ROCK, medium to dark brown
56	BR	BEDROCK, granite with quartz, medium to dark grey
61	BR	BEDROCK, very hard, granite with quartz, medium to dark grey
66		
71		
76	FBR	Fracture Zone, brown weathered material
81	BR	BEDROCK, very hard, granite with quartz, medium to dark grey

Well Construction



Well Construction Details

Above Grade Locking Protective Casing

Portland/Bentonite Grout

8.25" Diameter Borehole

2" Sch. 40 PVC Casing

6" Sch. 40 PVC Casing (Casing set at 59')

Bentonite Seal

Well Sand Filter Pack

2" Sch. 40 PVC 0.010" Slot Screen

End Cap

Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	59'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	80'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	70-80'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	688.23

ERM

10045

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2284-A

1. WELL CONTRACTOR:
Steve Poloniewicz
Well Contractor (Individual) Name
SAEDACCO Inc
Well Contractor Company Name
9088 Northfield Drive
Street Address
Fort Mill SC 29707
City or Town State Zip Code
( ) (803) 548-2180
Area code Phone number

2. WELL INFORMATION:
WELL CONSTRUCTION PERMIT#
OTHER ASSOCIATED PERMIT#(if applicable)
SITE WELL ID #(if applicable) DW-3

3. WELL USE (Check One Box) Monitoring ☒ Municipal/Public ☐
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)
DATE DRILLED 5-14-2014

4. WELL LOCATION:
100 Rego Drive Elon
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
CITY: Elon COUNTY
TOPOGRAPHIC / LAND SETTING: (check appropriate box)
☒ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
LATITUDE " DMS OR 3x.xxxxxxxxx DD
LONGITUDE " DMS OR 7x.xxxxxxxxx DD
Latitude/longitude source: ☐ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)
Facility Name Facility ID# (if applicable)
Street Address
Elon NC
City or Town State Zip Code
Contact Name
Mailing Address
City or Town State Zip Code
( )
Area code Phone number

6. WELL DETAILS:
a. TOTAL DEPTH: 80
b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
c. WATER LEVEL Below Top of Casing: FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 3 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.
e. YIELD (gpm): METHOD OF TEST
f. DISINFECTION: Type Amount
g. WATER ZONES (depth):
Top Bottom Top Bottom
Top Bottom Top Bottom
Top Bottom Top Bottom

7. CASING:

Depth		Diameter	Thickness/ Weight	Material
Top 0.0	Bottom 70'	Ft. 2"	SCH40	PVC
Top	Bottom	Ft.		
Top	Bottom	Ft.		

8. GROUT:

Depth		Material	Method
Top 1'	Bottom 65'	Ft. Portland	
Top 65'	Bottom 68'	Ft. Bent pellets	
Top	Bottom	Ft.	

9. SCREEN:

Depth		Diameter	Slot Size	Material
Top 70'	Bottom 80'	Ft. 2" in.	.010 in.	PVC
Top	Bottom	Ft. in.	in.	
Top	Bottom	Ft. in.	in.	

10. SAND/GRAVEL PACK:

Depth		Size	Material
Top 68'	Bottom 80'	Ft. #2	Silica sand
Top	Bottom	Ft.	
Top	Bottom	Ft.	

11. DRILLING LOG

Top	Bottom	Formation Description
0.0	54	RED SILTY CLAY
54'	58'	Bedrock
	58'	

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF CERTIFIED WELL CONTRACTOR 6/1/2014 DATE

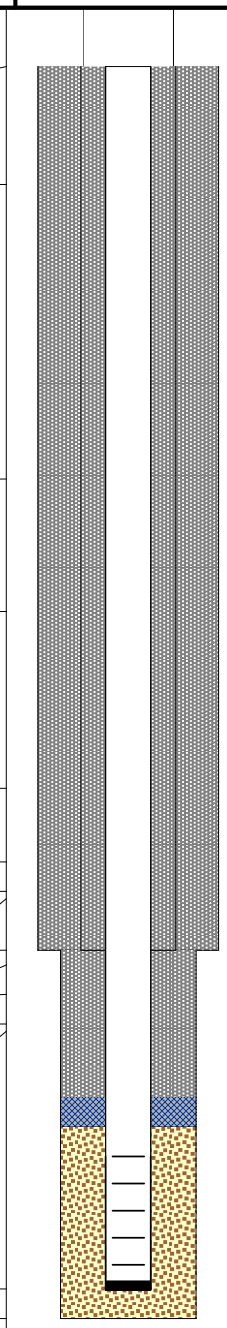
STEVE POLONIEWICZ
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09

Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-4
Project:	ECI Elon	**Date Started:**	5/14/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/16/14
Project Number:	0235393	**Northing:**	856434.9788
Logged By:	Chris Means	**Easting:**	1847439.1834

Depth	Lithology	Lithologic Description
1	SM	Silty SAND, Grass, light brown
6	CH	Silty CLAY, red, moist
26	CH	Silty CLAY, red to medium brown, moist
36	CH	Silty CLAY, medium brown, wet
46	PWR	Medium to dark brown PARTIALLY WEATHERED ROCK
51	BR	BEDROCK, competent
56	FBR	Fracture Zone, brown weathered material
	BR	BEDROCK, competent
61	BR	BEDROCK, granite with quartz, medium grey
	FBR	Fracture Zone
	BR	BEDROCK, competent
66	FBR	Fracture Zone
71	BR	BEDROCK, competent
81	FBR	Fracture Zone



Well Construction Details

Flush Grade Locking Cap

Portland/Bentonite Grout

8.25" Diameter Borehole

2" Sch. 40 PVC Casing

6" Sch. 40 PVC Casing
(Casing set at 60')

Bentonite Seal

Well Sand Filter Pack
2" Sch. 40 PVC 0.010" Slot Screen

End Cap

Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	60'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	85'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	74-84'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	695.4

ERM

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2284-A

1. WELL CONTRACTOR:

Steve Poloniewicz
Well Contractor (Individual) Name

SAEDACCO Inc
Well Contractor Company Name

9088 Northfield Drive
Street Address

Fort Mill SC 29707
City or Town State Zip Code

( ) (803) 548-2180
Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) DW-4

3. WELL USE (Check One Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation☐ Other ☐ (list use)

DATE DRILLED 5-16-2014

4. WELL LOCATION:

100 Rego Drive Elon
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Elon COUNTY

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☒Slope ☐Valley ☐Flat ☐Ridge ☐Other

LATITUDE " DMS OR 3x.xxxxxxxxx DD

LONGITUDE " DMS OR 7x.xxxxxxxxx DD

Latitude/longitude source: ☐GPS ☐Topographic map

(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

Facility Name Facility ID# (if applicable)

Street Address

Elon NC
City or Town State Zip Code

Contact Name

Mailing Address

City or Town State Zip Code

( )
Area code Phone number

6. WELL DETAILS:

a. **TOTAL DEPTH:** 84

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: FT
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** 0.6 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** **METHOD OF TEST**

f. **DISINFECTION: Type** **Amount**

g. **WATER ZONES** (depth):

Top Bottom Top Bottom
Top Bottom Top Bottom
Top Bottom Top Bottom

7. CASING:

Depth		Diameter	Thickness/ Weight	Material
Top 0.0	Bottom 74'	Ft. 2"	SCH40	PVC
Top	Bottom	Ft.		
Top	Bottom	Ft.		

8. GROUT:

Depth		Material	Method
Top 1'	Bottom 69'	Ft. Portland	
Top 69	Bottom 72'	Ft. Bent pellets	
Top	Bottom	Ft.	

9. SCREEN:

Depth		Diameter	Slot Size	Material
Top 74'	Bottom 84'	Ft. 2" in.	.010 in	PVC
Top	Bottom	Ft. in.	in.	
Top	Bottom	Ft. in.	in.	

10. SAND/GRAVEL PACK:

Depth		Size	Material
Top 72'	Bottom 84'	Ft. #2	Silica sand
Top	Bottom	Ft.	
Top	Bottom	Ft.	

11. DRILLING LOG

Top	Bottom	Formation Description
0.0	49'	RED SILTY CLAY
49'	84'	Bedrock
	84'	

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF CERTIFIED WELL CONTRACTOR 6/1/2014 DATE

STEVE POLONIEWICZ
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

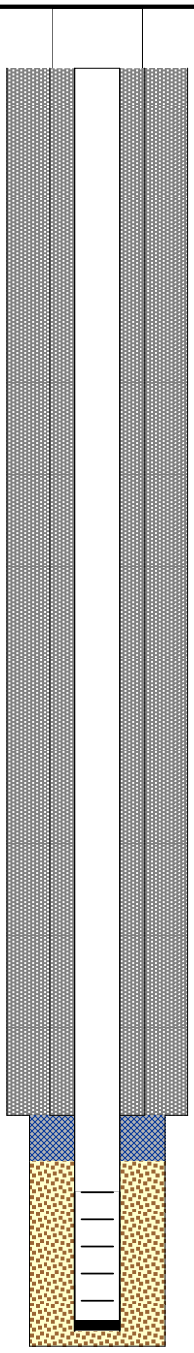
Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09

Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-5
Project:	ECI Elon	**Date Started:**	5/15/14
Site Location:	Elon, North Carolina	**Date Completed:**	5/19/14
Project Number:	0235393	**Northing:**	856162.6000
Logged By:	Chris Means/Greg Kanellis	**Easting:**	1846890.3700

Depth	Lithology	Lithologic Description
1	CL	Silty CLAY, grass, red, dry
		Concrete / rebar (likely part of a historic water tower foundation)
11	CL	Silty CLAY, red, damp
21	CL	Silty CLAY, light brown, damp
36	CL	Silty CLAY, light to medium brown, moist
51	CL	Silty CLAY, tan to light brown, wet
56	PWR	PARTIALLY WEATHERED ROCK, medium to dark brown
61	BR	BEDROCK, competent
	FBR	Fracture Zone, brown weathered material
66	BR	BEDROCK, competent
71	BR	BEDROCK, competent
76	FBR	Fracture Zone
81	BR	BEDROCK, competent

Well Construction



Well Construction Details

Flush Grade Locking Cap

Portland/Bentonite Grout

8.25" Diameter Borehole

2" Sch. 40 PVC Casing

6" Sch. 40 PVC Casing (Casing set at 68')

Bentonite Seal

Well Sand Filter Pack

2" Sch. 40 PVC 0.010" Slot Screen

End Cap

Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	68'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	83'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	73-83'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	711.38

ERM

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2284-A

1. WELL CONTRACTOR:

Steve Poloniewicz
Well Contractor (Individual) Name

SAEDACCO Inc
Well Contractor Company Name

9088 Northfield Drive
Street Address

Fort Mill SC 29707
City or Town State Zip Code

( ) (803) 548-2180
Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) DW-5

3. WELL USE (Check One Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 5-20-2014

4. WELL LOCATION:

100 Rego Drive Elon
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Elon COUNTY

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☒ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other

LATITUDE " DMS OR 3x.xxxxxxxxx DD

LONGITUDE " DMS OR 7x.xxxxxxxxx DD

Latitude/longitude source: ☐ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map andattached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

Facility Name Facility ID# (if applicable)

Street Address

Elon NC
City or Town State Zip Code

Contact Name

Mailing Address

City or Town State Zip Code

( )
Area code Phone number

6. WELL DETAILS:

a. **TOTAL DEPTH:** 83'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☒

c. **WATER LEVEL** Below Top of Casing: FT
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** 0.6 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118

e. **YIELD (gpm):** **METHOD OF TEST**

f. **DISINFECTION: Type** **Amount**

g. **WATER ZONES** (depth):

Top	Bottom	Top	Bottom
Top	Bottom	Top	Bottom
Top	Bottom	Top	Bottom

7. CASING:

Depth		Diameter	Thickness/ Weight	Material
Top 0.6	Bottom 83'	Ft. 2"	SCH40	PVC
Top	Bottom	Ft.		
Top	Bottom	Ft.		

8. GROUT:

Depth		Material	Method
Top 1'	Bottom 68'	Ft. Portland	
Top 68'	Bottom 71'	Ft. Bent pellets	
Top	Bottom	Ft.	

9. SCREEN:

Depth		Diameter	Slot Size	Material
Top 73'	Bottom 83'	Ft. 2" in.	.010 in.	PVC
Top	Bottom	Ft. in.	in.	
Top	Bottom	Ft. in.	in.	

10. SAND/GRAVEL PACK:

Depth		Size	Material
Top 71'	Bottom 83'	Ft. #2	Silica sand
Top	Bottom	Ft.	
Top	Bottom	Ft.	

11. DRILLING LOG

Top	Bottom	Formation Description
0.0	55'	RED SILTY CLAY
55'	83'	Bedrock
	83'	

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF CERTIFIED WELL CONTRACTOR 6/1/2014 DATE

STEVE POLONIEWICZ
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

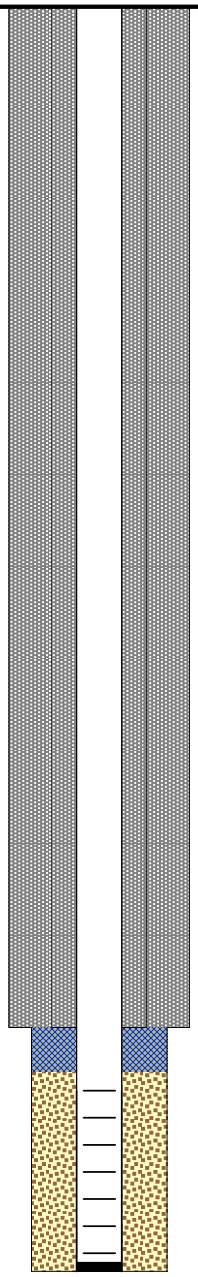
Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09

Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-6D
Project:	ECI Elon	**Date Started:**	1/12/15
Site Location:	Elon, North Carolina	**Date Completed:**	1/19/15
Project Number:	0235393	**Northing:**	856599.51
Logged By:	Tommy Fisher	**Easting:**	1847533.504

Depth	Lithology	Lithologic Description
0	OL	Sandy SILT, dark brown, dry, high organic content
10	CH	Silty CLAY, reddish orange, dry, stiff, plastic
20	ML	Clayey SILT, reddish orange, slightly moist, stiff, slight plasticity
30	CH	Silty CLAY, light orange, very moist, plastic, sticky
40		Silty CLAY, tan, wet, very sticky, plastic
50		Silty CLAY, light reddish tan, wet, very sticky, plastic
		Silty CLAY, brown, wet, sticky, plastic
60	PWR	PARTIALLY WEATHERED ROCK
	BR	BEDROCK, competent, gray
70	FBR	Fracture Zone
	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
80	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
90	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
100	BR	BEDROCK, competent, gray. 6" Casing set at 100'
110	BR	BEDROCK, competent, gray
120	FBR	Fracture Zone
130	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
140	BR	BEDROCK, competent, gray
150		

Well Construction



Well Construction Details

Flush Grade Locking Cap

Portland/Bentonite Grout

8.25" Diameter Borehole

2" Sch. 40 PVC Casing

6" Sch. 40 PVC Casing (Casing set at 100')

Bentonite Seal

Well Sand Filter Pack
2" Sch. 40 PVC 0.010" Slot Screen

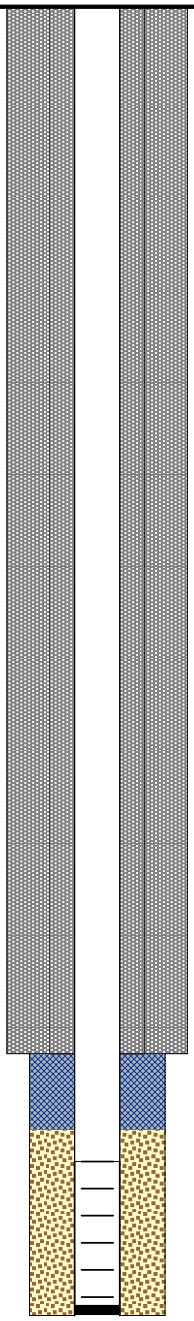
End Cap

Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	100'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	140'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	120'-140'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	693.26

ERM

Client:	Engineered Controls International, Inc.	**Boring ID:**	DW-6
Project:	ECI Elon	**Date Started:**	1/20/15
Site Location:	Elon, North Carolina	**Date Completed:**	1/21/15
Project Number:	0235393	**Northing:**	856605.196
Logged By:	Tommy Fisher	**Easting:**	1847534.577

Depth	Lithology	Lithologic Description
0	ML	Sandy SILT, fine, brown
5	CH	Silty CLAY, reddish orange, stiff, plastic
10		
15		
20	ML	Clayey SILT, reddish orange, slightly plastic, moist
25		
30		
35	CH	Silty CLAY, light orange, plastic, sticky, moist
40		
45		Silty CLAY, tan, wet, very sticky, plastic. 6" Casing set at 60'
50		
55		
	PWR	PARTIALLY WEATHERED ROCK. 6" Casing set at 60'
60	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
65	BR	BEDROCK, competent, gray
	FBR	Fracture Zone
70		
75	BR	BEDROCK, competent, gray
80		
	FBR	Fracture Zone
	BR	BEDROCK, competent, gray
85		Fracture Zone



Well Construction Details
Flush Grade Locking Cap
Portland/Bentonite Grout
8.25" Diameter Borehole
2" Sch. 40 PVC Casing
6" Sch. 40 PVC Casing (Casing set at 60')
Bentonite Seal
Well Sand Filter Pack
2" Sch. 40 PVC 0.010" Slot Screen
End Cap

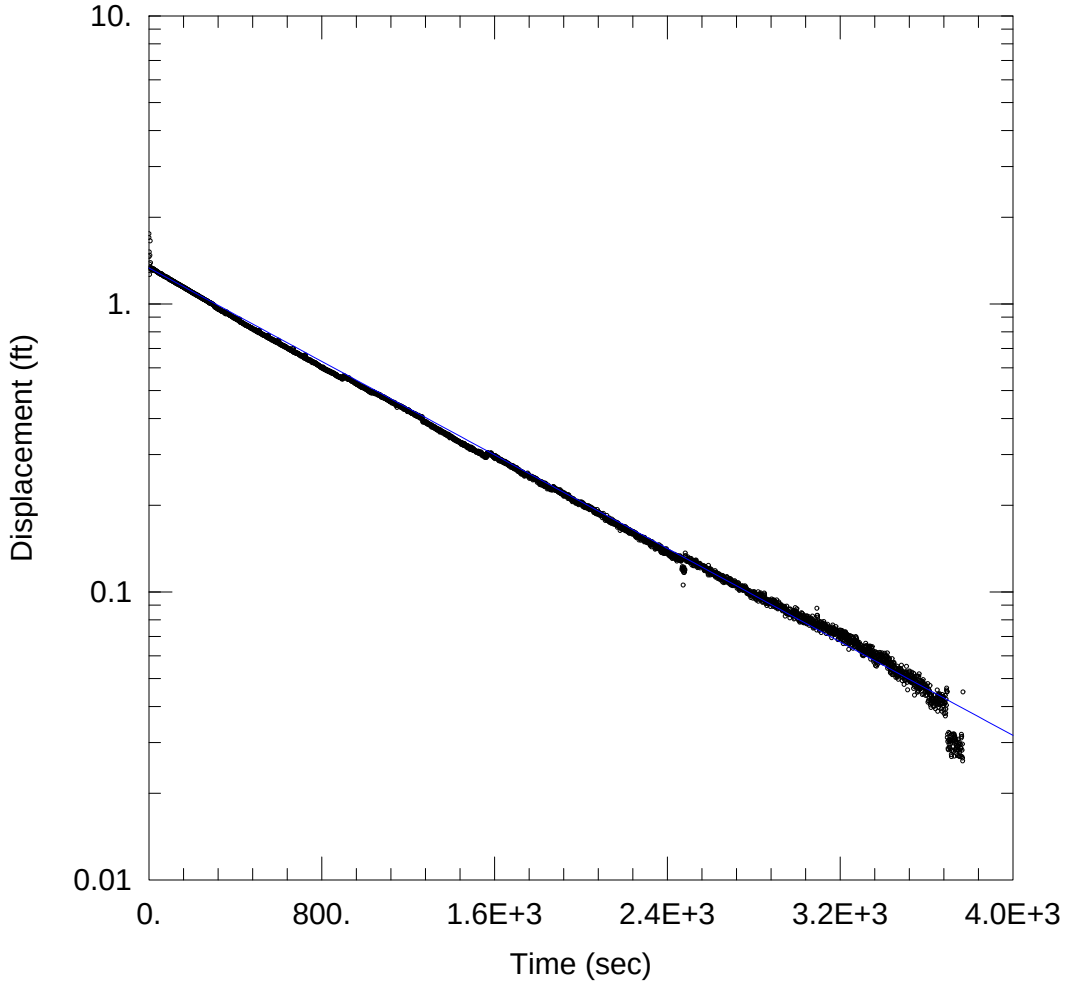
Drilling Contractor:	SAEDACCO	**Outer Casing Depth:**	60'
Drilling Method:	HSA/Air Rotary	**Total Depth (ft):**	85'
Drilling Equipment:	Gus Pech Brute	**Screened Interval:**	75'-85'
Responsible Professional:	Steve Poloniewicz	**Depth to Water (Final):**	
Borehole Diameter:	8.25"	**Elevation (msl):**	693.3

ERM

APPENDIX D
SLUG TEST DATA AND HYDRAULIC CALCULATIONS

Aquifer Slug Test Results

Aquifer slug test data was analyzed by the Bouwer and Rice method using AQTESOLV®, a software program designed to calculate hydraulic conductivity, storativity and other aquifer properties from data sets collected during slug and aquifer (pumping) tests.



WELL TEST ANALYSIS

Data Set: C:\...\ELON MW-1-1.aqt
Date: 08/15/14 Time: 10:10:17

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: MW-1
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 12.96 ft
Anisotropy Ratio (Kz/Kr): 0.25

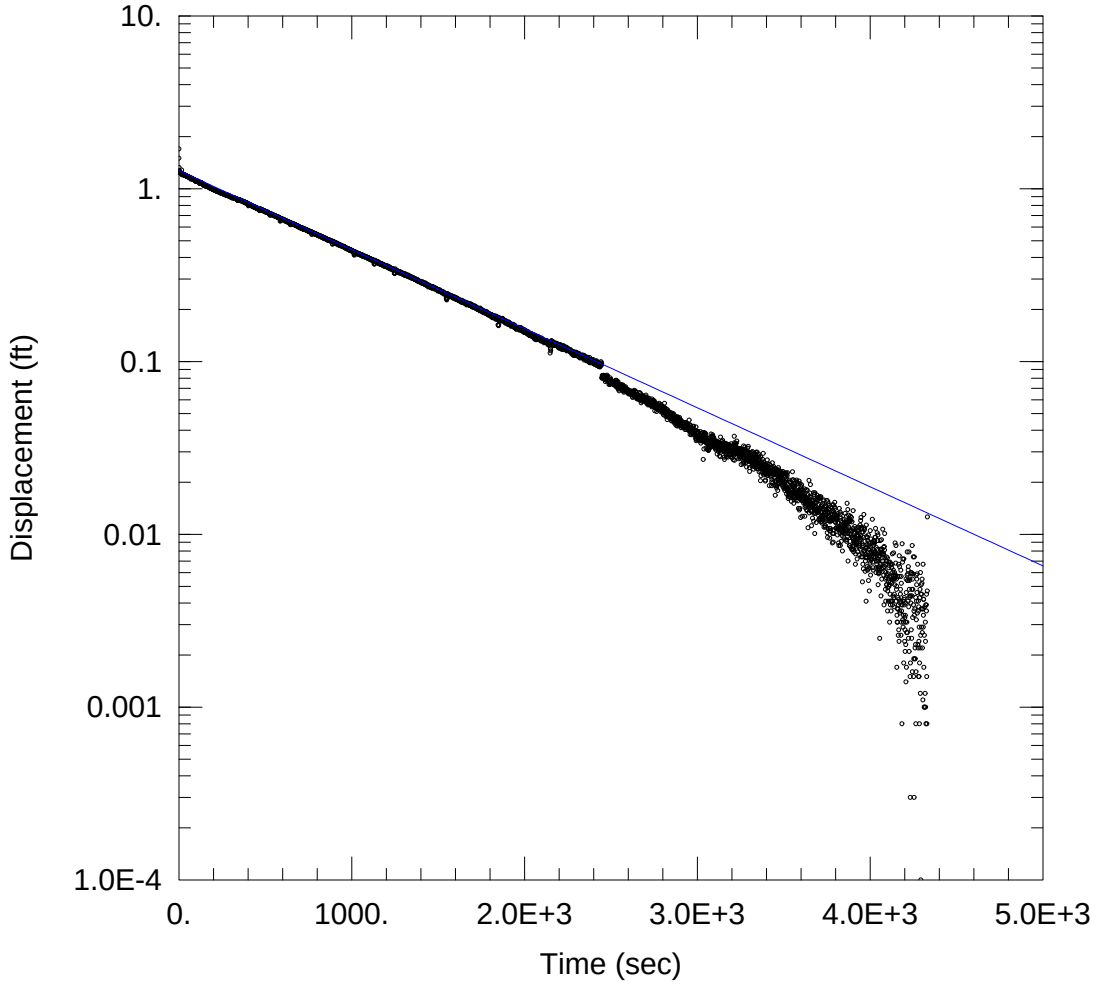
WELL DATA (MW-1)

Initial Displacement: 1.7 ft
Total Well Penetration Depth: 12.96 ft
Casing Radius: 0.08 ft
Static Water Column Height: 12.96 ft
Screen Length: 10. ft
Well Radius: 0.3 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0001515 cm/sec
y0 = 1.334 ft



WELL TEST ANALYSIS

Data Set: C:\...\ELON MW-1-2.aqt
Date: 08/15/14 Time: 10:15:07

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: MW-1
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 12.96 ft
Anisotropy Ratio (Kz/Kr): 0.25

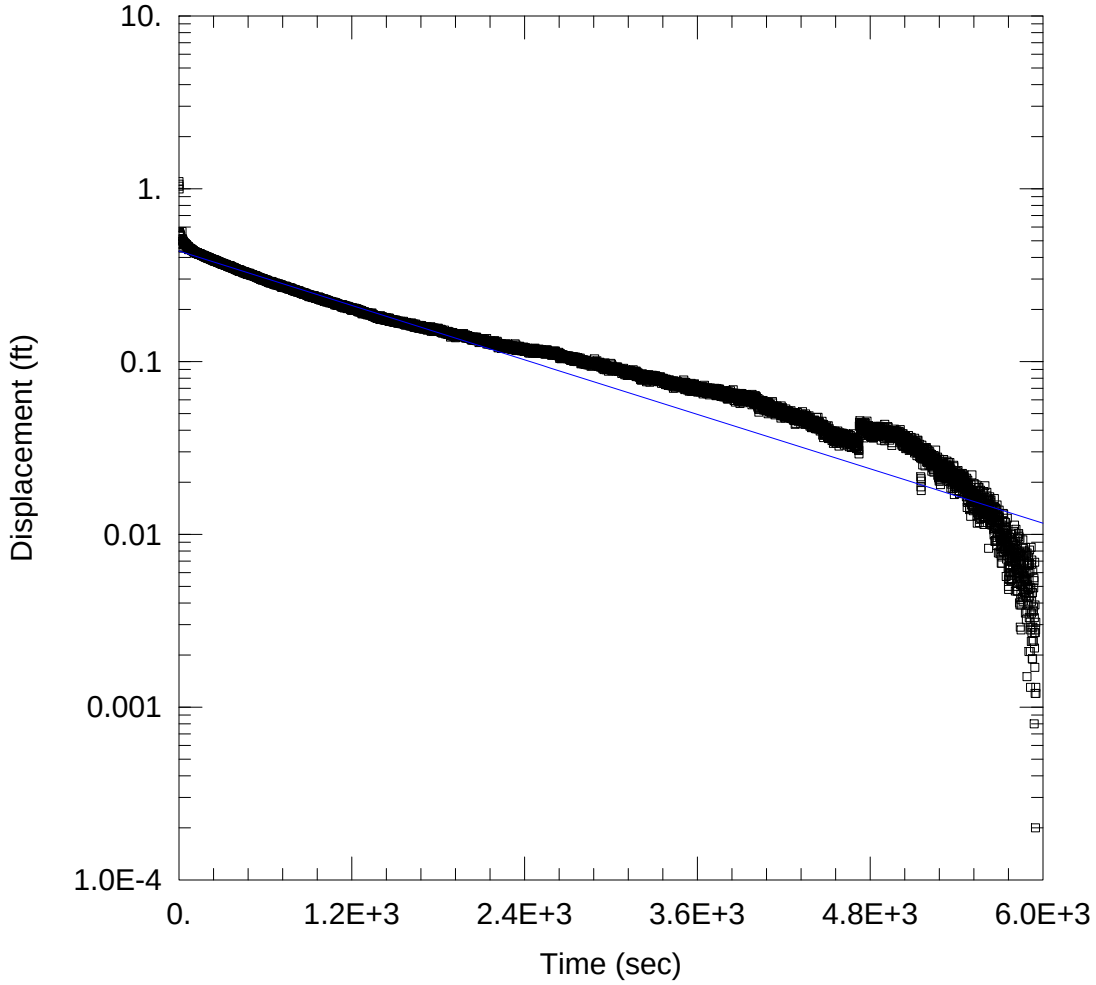
WELL DATA (MW-1)

Initial Displacement: 1.7 ft
Total Well Penetration Depth: 12.96 ft
Casing Radius: 0.08 ft
Static Water Column Height: 12.96 ft
Screen Length: 10. ft
Well Radius: 0.3 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0001708 cm/sec
y0 = 1.273 ft



WELL TEST ANALYSIS

Data Set: C:\...\ELON MW-4.aqt
Date: 08/15/14 Time: 10:17:49

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: MW-4
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 14.92 ft
Anisotropy Ratio (Kz/Kr): 0.25

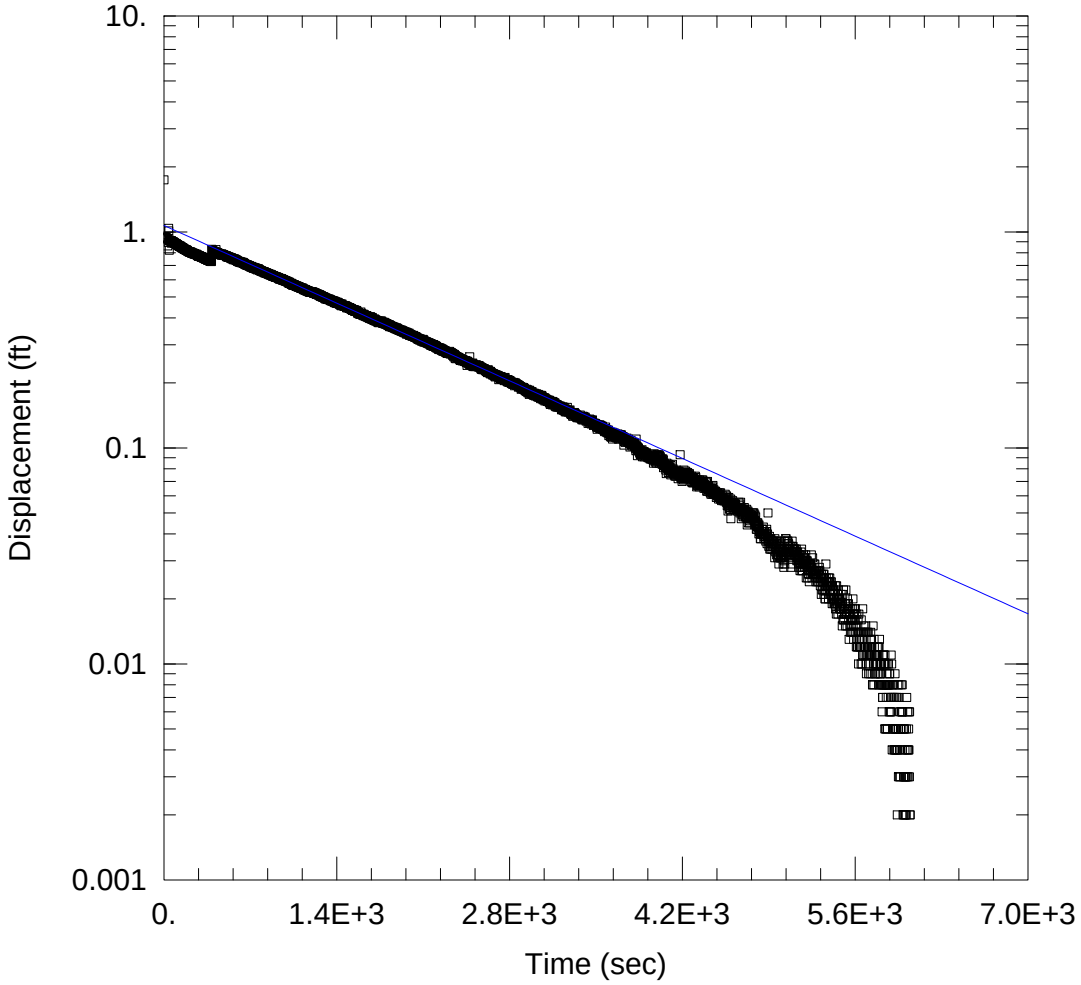
WELL DATA (MW-4)

Initial Displacement: 1.1 ft
Total Well Penetration Depth: 14.92 ft
Casing Radius: 0.08 ft
Static Water Column Height: 14.92 ft
Screen Length: 10. ft
Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.019E-5 cm/sec
y0 = 0.4359 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-7-1.aqt
Date: 08/15/14 Time: 10:19:58

PROJECT INFORMATION

Company: ERM
Client: Elon
Location: NC
Test Well: MW-7
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 7.9 ft Anisotropy Ratio (Kz/Kr): 0.25

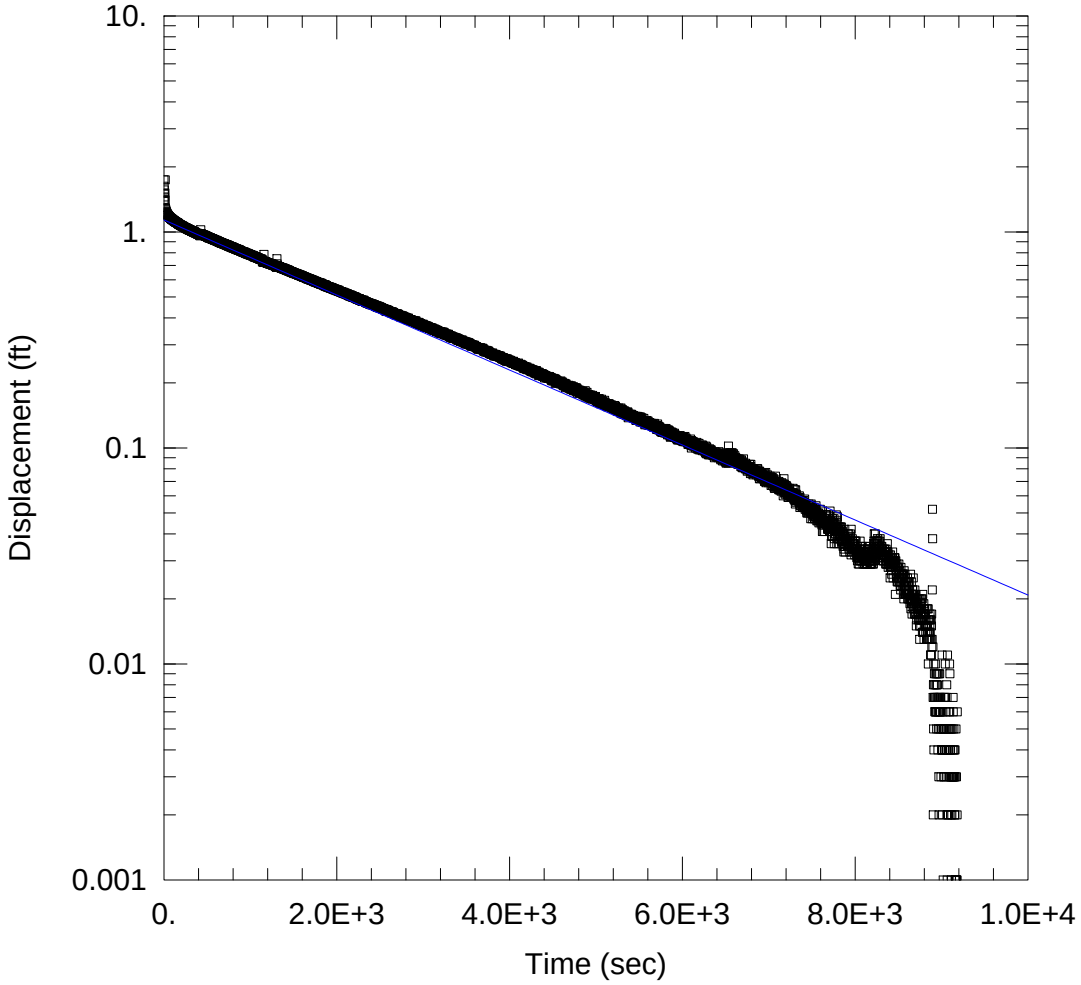
WELL DATA (MW-7)

Initial Displacement: 1.742 ft Static Water Column Height: 7.9 ft
Total Well Penetration Depth: 7.9 ft Screen Length: 7.9 ft
Casing Radius: 0.08 ft Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.788E-5 cm/sec y0 = 1.071 ft



WELL TEST ANALYSIS

Data Set: C:\...\MW-7-2.aqt
Date: 08/15/14 Time: 10:21:46

PROJECT INFORMATION

Company: ERM
Client: Elon
Location: NC
Test Well: MW-7
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 7.9 ft
Anisotropy Ratio (Kz/Kr): 0.25

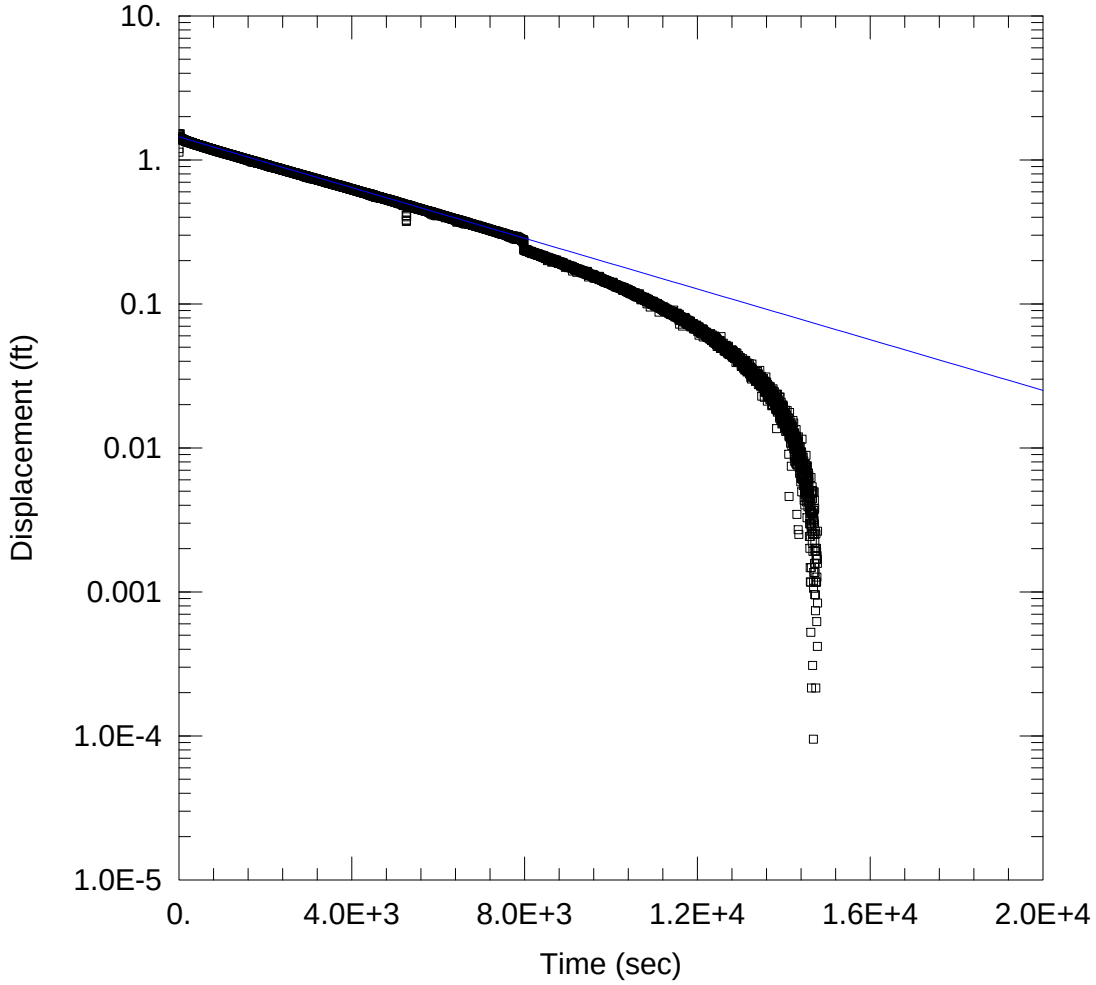
WELL DATA (MW-7)

Initial Displacement: 1.742 ft
Total Well Penetration Depth: 7.9 ft
Casing Radius: 0.08 ft
Static Water Column Height: 7.9 ft
Screen Length: 7.9 ft
Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.209E-5 cm/sec
y0 = 1.135 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-2-1.aqt
Date: 08/15/14 Time: 10:23:41

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-2
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 70.99 ft
Anisotropy Ratio (Kz/Kr): 0.25

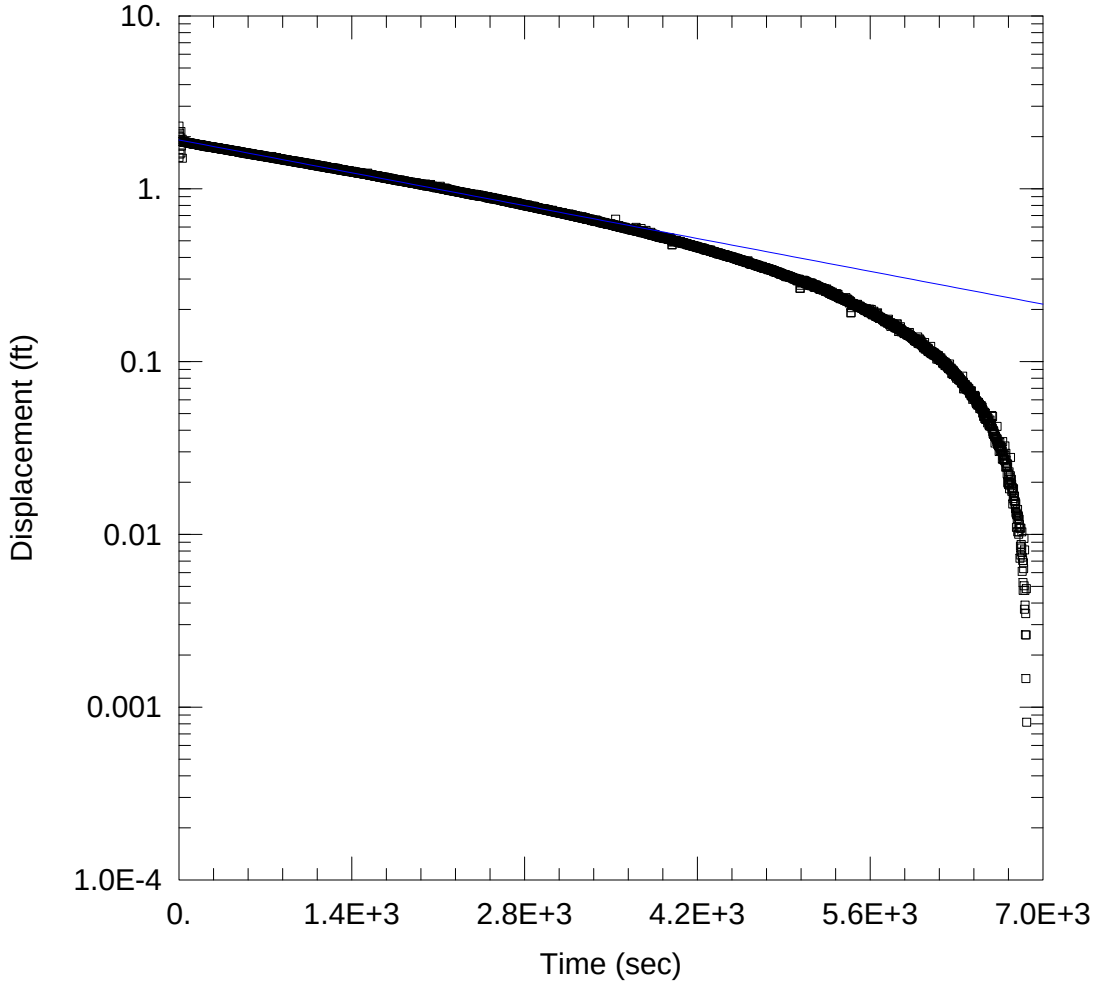
WELL DATA (DW-2)

Initial Displacement: 1.518 ft
Total Well Penetration Depth: 70.99 ft
Casing Radius: 0.08 ft
Static Water Column Height: 70.99 ft
Screen Length: 30. ft
Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 3.092E-6 cm/sec
y0 = 1.446 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-2-2.aqt
Date: 08/15/14 Time: 10:26:20

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-2
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 70.99 ft
Anisotropy Ratio (Kz/Kr): 0.25

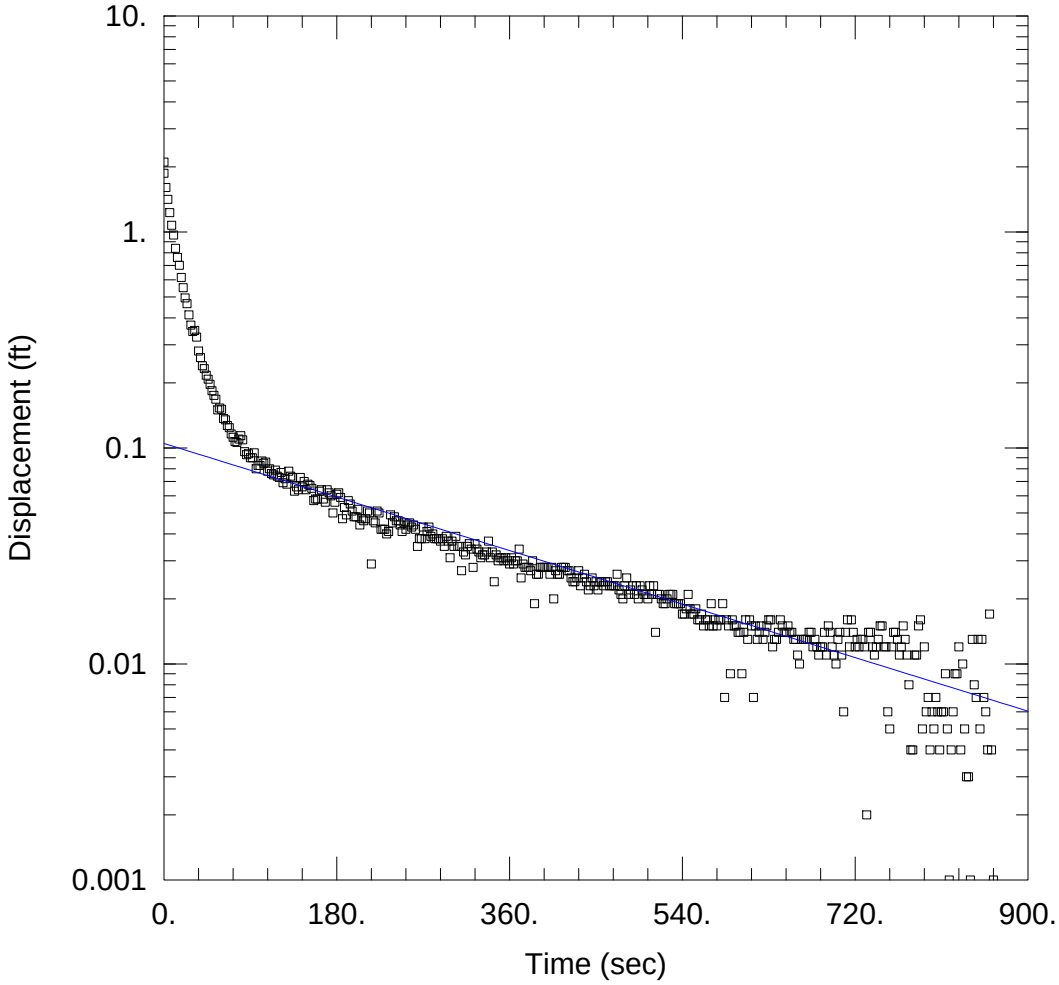
WELL DATA (DW-2)

Initial Displacement: 1.518 ft
Total Well Penetration Depth: 70.99 ft
Casing Radius: 0.08 ft
Static Water Column Height: 70.99 ft
Screen Length: 30. ft
Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 4.771E-6 cm/sec
y0 = 1.916 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-3-2.aqt
Date: 08/15/14 Time: 10:28:11

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-3
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 26. ft
Anisotropy Ratio (Kz/Kr): 0.25

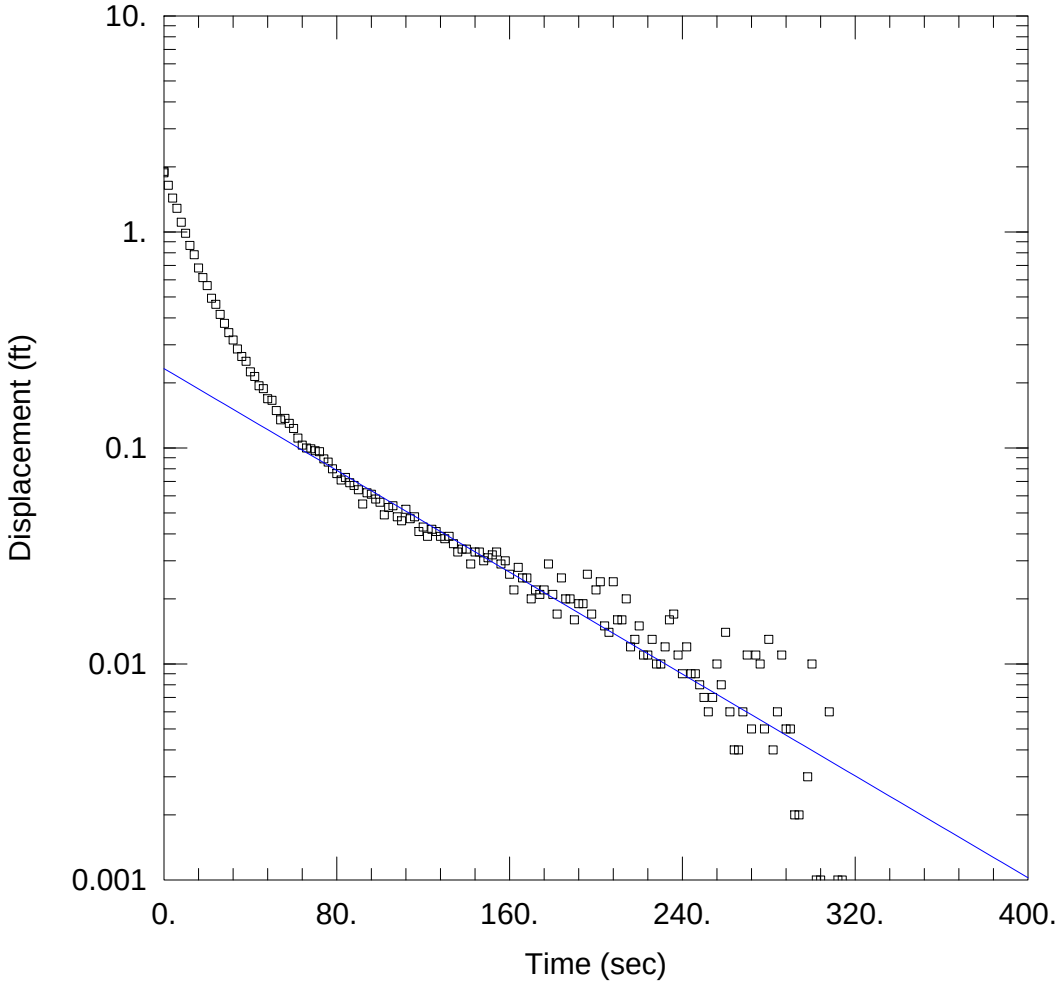
WELL DATA (DW-3)

Initial Displacement: 2.106 ft
Total Well Penetration Depth: 63.97 ft
Casing Radius: 0.08 ft
Static Water Column Height: 63.97 ft
Screen Length: 10. ft
Well Radius: 0.34 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0001313 cm/sec
y0 = 0.1048 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-3-4.aqt
Date: 08/15/14 Time: 10:30:21

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-3
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 26. ft Anisotropy Ratio (Kz/Kr): 0.25

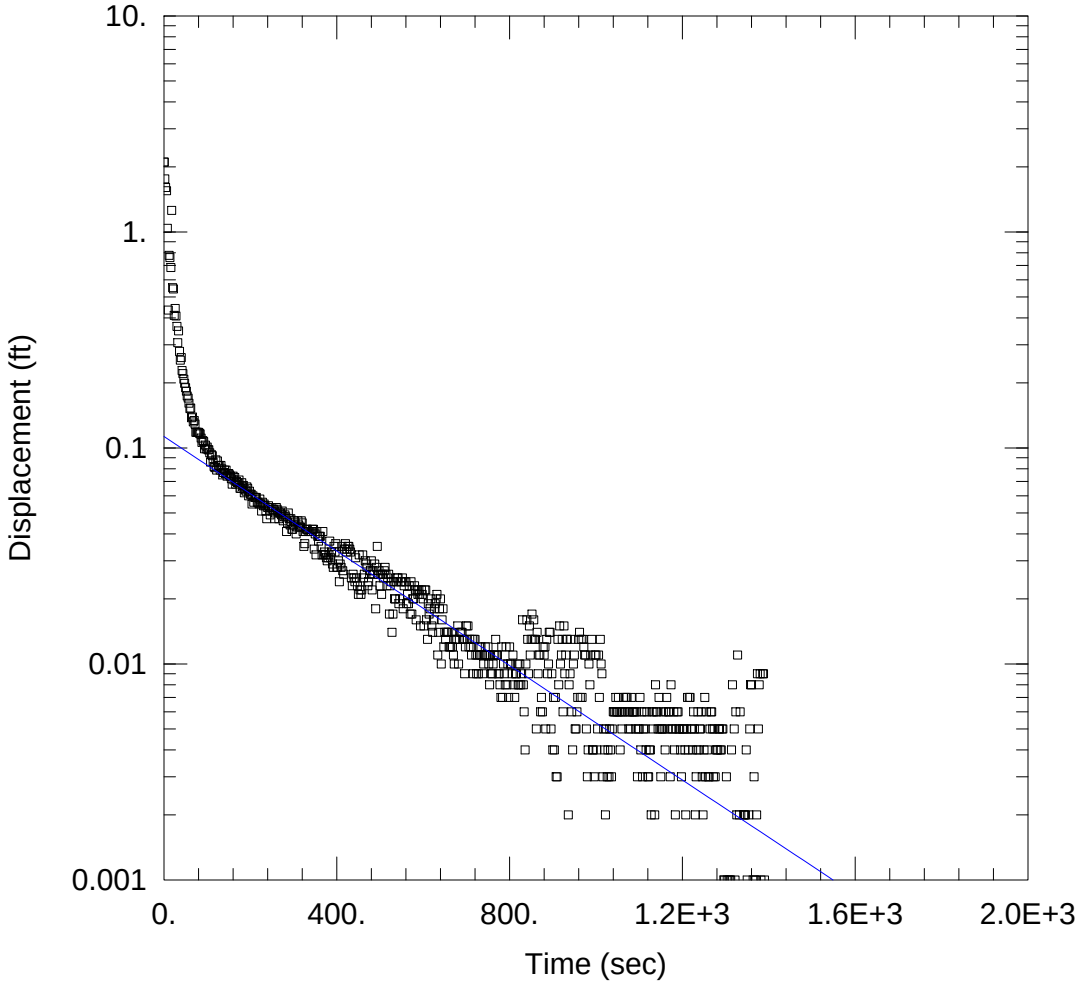
WELL DATA (DW-3)

Initial Displacement: 1.877 ft
Total Well Penetration Depth: 63.97 ft
Casing Radius: 0.08 ft
Static Water Column Height: 63.97 ft
Screen Length: 10. ft
Well Radius: 0.34 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0005617 cm/sec
y0 = 0.233 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-3-5a.aqt
Date: 08/15/14 Time: 10:31:58

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-3
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 26. ft
Anisotropy Ratio (Kz/Kr): 0.25

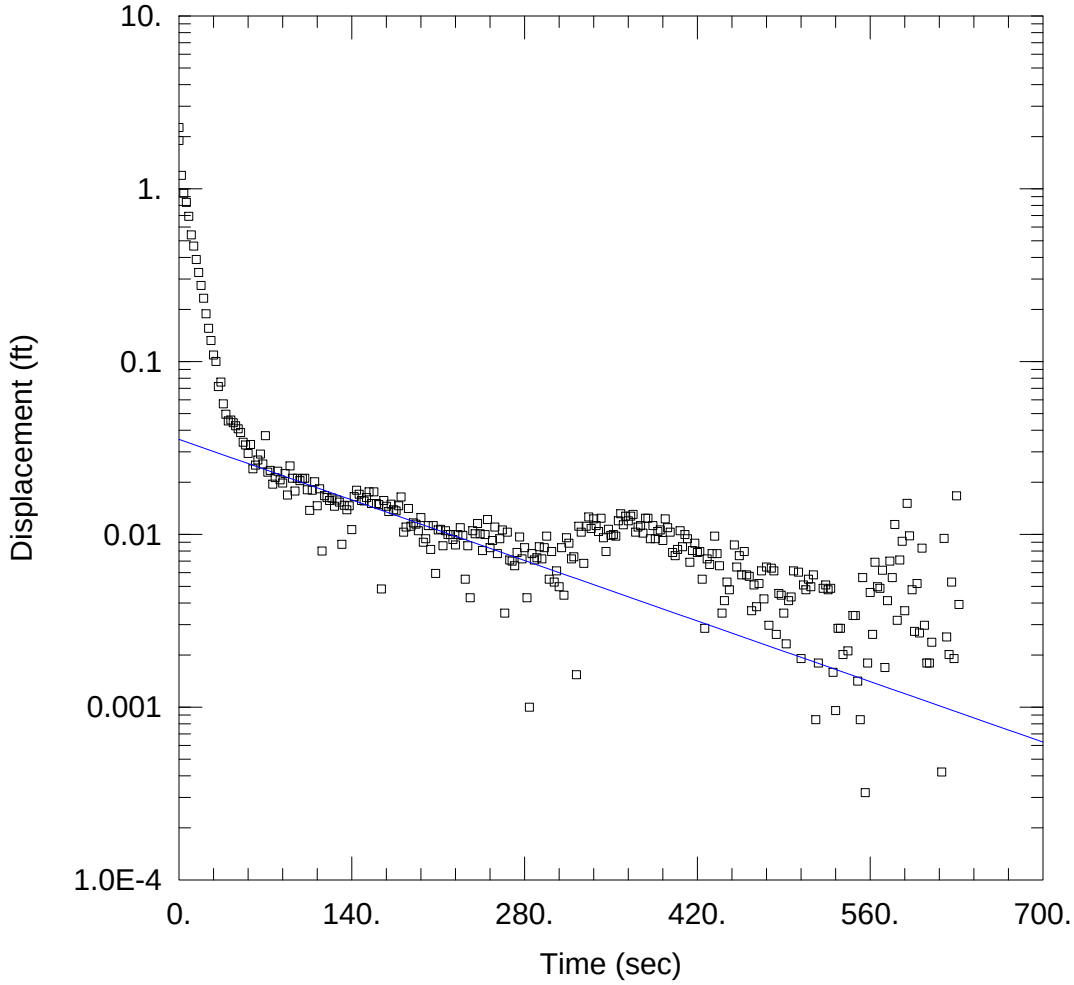
WELL DATA (DW-3)

Initial Displacement: 2.106 ft
Total Well Penetration Depth: 63.97 ft
Casing Radius: 0.08 ft
Static Water Column Height: 63.97 ft
Screen Length: 10. ft
Well Radius: 0.34 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0001263 cm/sec
y0 = 0.1129 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-5-3.aqt
Date: 08/15/14 Time: 10:33:16

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-5
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 4.8 ft
Anisotropy Ratio (Kz/Kr): 0.25

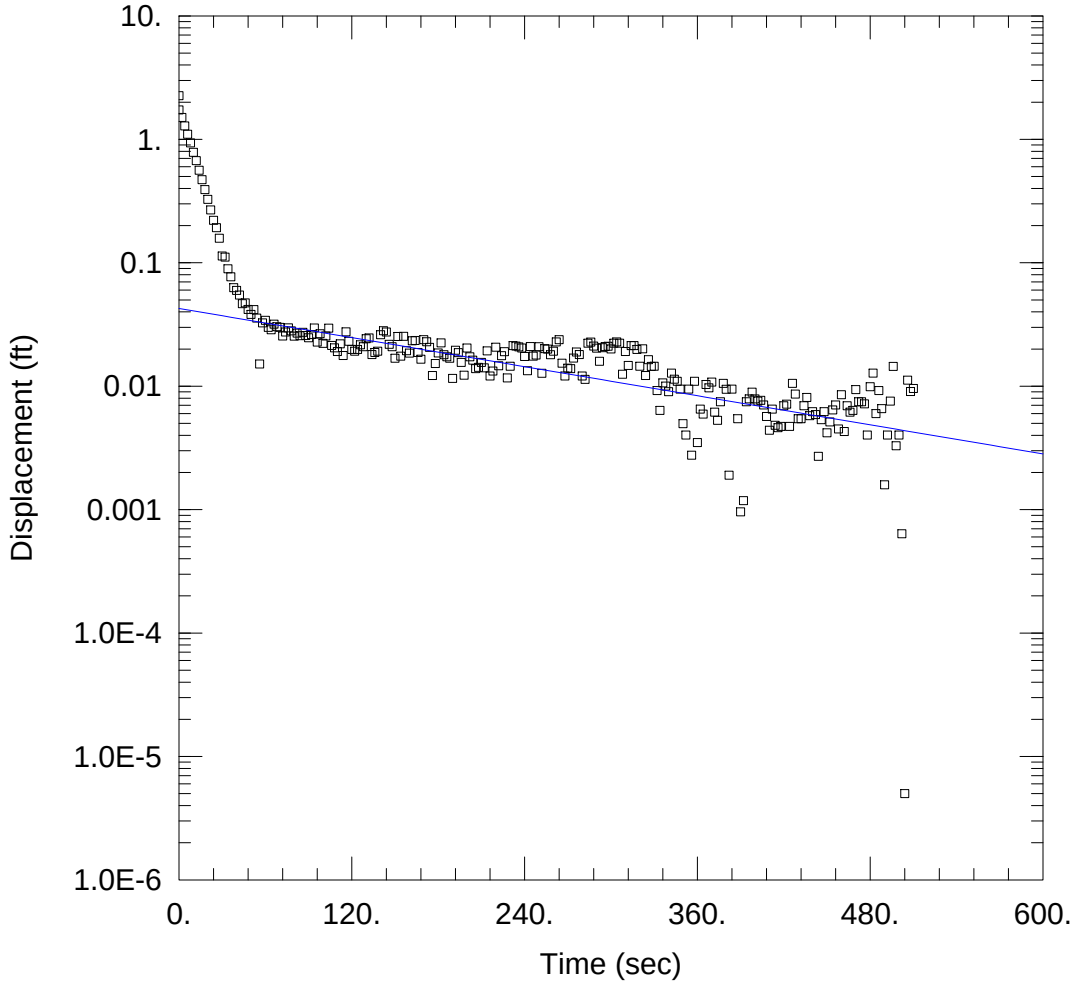
WELL DATA (DW-5)

Initial Displacement: 2.26 ft
Total Well Penetration Depth: 60.5 ft
Casing Radius: 0.088 ft
Static Water Column Height: 60.5 ft
Screen Length: 10. ft
Well Radius: 0.3 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0004675 cm/sec
y0 = 0.03544 ft



WELL TEST ANALYSIS

Data Set: C:\...\DW-5-4.aqt
Date: 08/15/14 Time: 10:34:38

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Well: DW-5
Test Date: 5/2014

AQUIFER DATA

Saturated Thickness: 4.8 ft
Anisotropy Ratio (Kz/Kr): 0.25

WELL DATA (DW-5)

Initial Displacement: 2.26 ft
Total Well Penetration Depth: 60.5 ft
Casing Radius: 0.088 ft
Static Water Column Height: 60.5 ft
Screen Length: 10. ft
Well Radius: 0.3 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0003669 cm/sec
y0 = 0.04264 ft

Aquifer Slug Test Data

Well MW-1

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:11:03

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: MW-1

AQUIFER DATA

Saturated Thickness: 12.96 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: MW-1

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.7 ft
Static Water Column Height: 12.96 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 0.3 ft
Screen Length: 10. ft
Total Well Penetration Depth: 12.96 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.1771 ft
Gravel Pack Porosity: 0.3

No. of Observations: 3771

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.753	1886.	0.2279
1.	1.457	1887.	0.227
2.	1.514	1888.	0.2262
3.	1.264	1889.	0.2244
4.	1.374	1890.	0.2269
5.	1.474	1891.	0.2243
6.	1.654	1892.	0.2251
7.	1.327	1893.	0.2266
8.	1.39	1894.	0.2242
9.	1.34	1895.	0.2228
10.	1.328	1896.	0.222
11.	1.318	1897.	0.2225
12.	1.316	1898.	0.2224
13.	1.319	1899.	0.2246
14.	1.313	1900.	0.2219
15.	1.312	1901.	0.2255
16.	1.312	1902.	0.2229
17.	1.311	1903.	0.2207
18.	1.309	1904.	0.2264
19.	1.325	1905.	0.2233
20.	1.323	1906.	0.2207
21.	1.321	1907.	0.2195
22.	1.316	1908.	0.2197
23.	1.319	1909.	0.2227
24.	1.317	1910.	0.2231
25.	1.315	1911.	0.2188
26.	1.313	1912.	0.221
27.	1.31	1913.	0.2221
28.	1.31	1914.	0.2219

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
29.	1.31	1915.	0.2177
30.	1.305	1916.	0.2217
31.	1.303	1917.	0.2169
32.	1.302	1918.	0.2184
33.	1.3	1919.	0.2177
34.	1.301	1920.	0.2164
35.	1.301	1921.	0.2147
36.	1.296	1922.	0.2199
37.	1.298	1923.	0.2205
38.	1.294	1924.	0.2165
39.	1.289	1925.	0.2166
40.	1.292	1926.	0.2198
41.	1.288	1927.	0.2155
42.	1.286	1928.	0.2153
43.	1.286	1929.	0.2162
44.	1.287	1930.	0.2176
45.	1.283	1931.	0.2177
46.	1.278	1932.	0.2177
47.	1.28	1933.	0.2155
48.	1.278	1934.	0.2143
49.	1.275	1935.	0.2157
50.	1.277	1936.	0.2162
51.	1.274	1937.	0.2156
52.	1.274	1938.	0.2164
53.	1.271	1939.	0.2145
54.	1.266	1940.	0.211
55.	1.268	1941.	0.2172
56.	1.274	1942.	0.2167
57.	1.272	1943.	0.2151
58.	1.271	1944.	0.2169
59.	1.27	1945.	0.2126
60.	1.265	1946.	0.2114
61.	1.261	1947.	0.2125
62.	1.264	1948.	0.212
63.	1.262	1949.	0.2113
64.	1.26	1950.	0.2117
65.	1.262	1951.	0.21
66.	1.254	1952.	0.211
67.	1.255	1953.	0.2107
68.	1.25	1954.	0.2129
69.	1.252	1955.	0.2115
70.	1.249	1956.	0.2089
71.	1.246	1957.	0.2085
72.	1.247	1958.	0.2104
73.	1.247	1959.	0.2095
74.	1.246	1960.	0.2057
75.	1.245	1961.	0.2087
76.	1.241	1962.	0.2071
77.	1.244	1963.	0.2092
78.	1.242	1964.	0.2085
79.	1.24	1965.	0.2107
80.	1.237	1966.	0.2086
81.	1.24	1967.	0.2098
82.	1.238	1968.	0.2075
83.	1.236	1969.	0.2081
84.	1.235	1970.	0.2059
85.	1.234	1971.	0.2068
86.	1.231	1972.	0.2076
87.	1.232	1973.	0.2067
88.	1.23	1974.	0.2053
89.	1.231	1975.	0.2037
90.	1.226	1976.	0.2034
91.	1.23	1977.	0.2036
92.	1.224	1978.	0.2049
93.	1.22	1979.	0.204
94.	1.22	1980.	0.2057

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
95.	1.214	1981.	0.2048
96.	1.217	1982.	0.2035
97.	1.214	1983.	0.2045
98.	1.212	1984.	0.2064
99.	1.213	1985.	0.2033
100.	1.212	1986.	0.2019
101.	1.214	1987.	0.2053
102.	1.212	1988.	0.2039
103.	1.209	1989.	0.2032
104.	1.211	1990.	0.2006
105.	1.207	1991.	0.2045
106.	1.206	1992.	0.2019
107.	1.208	1993.	0.2037
108.	1.203	1994.	0.2041
109.	1.201	1995.	0.2048
110.	1.2	1996.	0.2035
111.	1.198	1997.	0.2029
112.	1.198	1998.	0.2048
113.	1.199	1999.	0.2028
114.	1.198	2000.	0.2031
115.	1.194	2001.	0.2047
116.	1.195	2002.	0.2024
117.	1.195	2003.	0.2025
118.	1.189	2004.	0.2052
119.	1.19	2005.	0.2027
120.	1.19	2006.	0.2019
121.	1.191	2007.	0.2017
122.	1.188	2008.	0.1985
123.	1.184	2009.	0.2012
124.	1.183	2010.	0.2038
125.	1.181	2011.	0.1998
126.	1.18	2012.	0.1974
127.	1.182	2013.	0.2011
128.	1.181	2014.	0.1985
129.	1.178	2015.	0.2
130.	1.174	2016.	0.2013
131.	1.176	2017.	0.1987
132.	1.172	2018.	0.196
133.	1.173	2019.	0.1985
134.	1.174	2020.	0.2
135.	1.173	2021.	0.1964
136.	1.173	2022.	0.1993
137.	1.169	2023.	0.1976
138.	1.167	2024.	0.1964
139.	1.166	2025.	0.1976
140.	1.165	2026.	0.1957
141.	1.165	2027.	0.1964
142.	1.166	2028.	0.1992
143.	1.162	2029.	0.1975
144.	1.161	2030.	0.1964
145.	1.162	2031.	0.1951
146.	1.159	2032.	0.1965
147.	1.158	2033.	0.1973
148.	1.158	2034.	0.1986
149.	1.154	2035.	0.1988
150.	1.155	2036.	0.1954
151.	1.153	2037.	0.1942
152.	1.151	2038.	0.1983
153.	1.148	2039.	0.1964
154.	1.148	2040.	0.1928
155.	1.148	2041.	0.1974
156.	1.148	2042.	0.1968
157.	1.147	2043.	0.1939
158.	1.144	2044.	0.194
159.	1.144	2045.	0.1954
160.	1.144	2046.	0.1957

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
161.	1.143	2047.	0.1969
162.	1.141	2048.	0.1952
163.	1.14	2049.	0.1947
164.	1.138	2050.	0.194
165.	1.134	2051.	0.1939
166.	1.138	2052.	0.1956
167.	1.135	2053.	0.1935
168.	1.132	2054.	0.1933
169.	1.134	2055.	0.1944
170.	1.132	2056.	0.1939
171.	1.128	2057.	0.1923
172.	1.129	2058.	0.1932
173.	1.127	2059.	0.1901
174.	1.127	2060.	0.1885
175.	1.127	2061.	0.1898
176.	1.126	2062.	0.1911
177.	1.121	2063.	0.1933
178.	1.122	2064.	0.1926
179.	1.121	2065.	0.191
180.	1.121	2066.	0.1886
181.	1.119	2067.	0.188
182.	1.116	2068.	0.1884
183.	1.115	2069.	0.1875
184.	1.119	2070.	0.1869
185.	1.111	2071.	0.1903
186.	1.112	2072.	0.187
187.	1.111	2073.	0.1891
188.	1.111	2074.	0.1903
189.	1.112	2075.	0.1898
190.	1.107	2076.	0.193
191.	1.105	2077.	0.186
192.	1.107	2078.	0.1881
193.	1.105	2079.	0.189
194.	1.105	2080.	0.189
195.	1.102	2081.	0.186
196.	1.103	2082.	0.1878
197.	1.098	2083.	0.1889
198.	1.099	2084.	0.189
199.	1.097	2085.	0.1878
200.	1.096	2086.	0.1851
201.	1.093	2087.	0.1852
202.	1.094	2088.	0.1846
203.	1.092	2089.	0.187
204.	1.093	2090.	0.186
205.	1.092	2091.	0.1854
206.	1.091	2092.	0.187
207.	1.085	2093.	0.1862
208.	1.09	2094.	0.1843
209.	1.089	2095.	0.1844
210.	1.086	2096.	0.1869
211.	1.086	2097.	0.1842
212.	1.084	2098.	0.1854
213.	1.081	2099.	0.1809
214.	1.083	2100.	0.1834
215.	1.08	2101.	0.1841
216.	1.081	2102.	0.1845
217.	1.077	2103.	0.1837
218.	1.075	2104.	0.1873
219.	1.073	2105.	0.1839
220.	1.073	2106.	0.1837
221.	1.078	2107.	0.1815
222.	1.073	2108.	0.1824
223.	1.074	2109.	0.181
224.	1.07	2110.	0.1797
225.	1.072	2111.	0.181
226.	1.069	2112.	0.1813

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
227.	1.067	2113.	0.1771
228.	1.066	2114.	0.1808
229.	1.067	2115.	0.1792
230.	1.066	2116.	0.1797
231.	1.066	2117.	0.1783
232.	1.063	2118.	0.1805
233.	1.065	2119.	0.178
234.	1.059	2120.	0.1841
235.	1.059	2121.	0.1788
236.	1.058	2122.	0.1768
237.	1.056	2123.	0.1777
238.	1.056	2124.	0.1791
239.	1.054	2125.	0.1779
240.	1.055	2126.	0.1771
241.	1.052	2127.	0.1782
242.	1.051	2128.	0.176
243.	1.05	2129.	0.1801
244.	1.049	2130.	0.178
245.	1.046	2131.	0.1768
246.	1.047	2132.	0.1804
247.	1.044	2133.	0.1743
248.	1.048	2134.	0.1755
249.	1.043	2135.	0.1749
250.	1.046	2136.	0.177
251.	1.04	2137.	0.176
252.	1.041	2138.	0.1756
253.	1.038	2139.	0.1761
254.	1.039	2140.	0.1738
255.	1.036	2141.	0.173
256.	1.038	2142.	0.1758
257.	1.036	2143.	0.1761
258.	1.034	2144.	0.1789
259.	1.034	2145.	0.1761
260.	1.033	2146.	0.1729
261.	1.035	2147.	0.1771
262.	1.029	2148.	0.1754
263.	1.028	2149.	0.1761
264.	1.027	2150.	0.1742
265.	1.026	2151.	0.1735
266.	1.025	2152.	0.1765
267.	1.026	2153.	0.1716
268.	1.024	2154.	0.1736
269.	1.024	2155.	0.1745
270.	1.024	2156.	0.1732
271.	1.02	2157.	0.1739
272.	1.02	2158.	0.1723
273.	1.021	2159.	0.1715
274.	1.021	2160.	0.1732
275.	1.017	2161.	0.1747
276.	1.014	2162.	0.1723
277.	1.012	2163.	0.1713
278.	1.013	2164.	0.1719
279.	1.009	2165.	0.1703
280.	1.01	2166.	0.1744
281.	1.012	2167.	0.1705
282.	1.006	2168.	0.1705
283.	1.008	2169.	0.1675
284.	1.005	2170.	0.1724
285.	1.009	2171.	0.1734
286.	1.006	2172.	0.1714
287.	1.006	2173.	0.173
288.	1.007	2174.	0.172
289.	1.003	2175.	0.1686
290.	1.	2176.	0.1686
291.	1.003	2177.	0.1691
292.	1.	2178.	0.1703

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
293.	0.9981	2179.	0.1689
294.	1.	2180.	0.1686
295.	0.9967	2181.	0.167
296.	0.9958	2182.	0.1634
297.	0.9959	2183.	0.1665
298.	0.9938	2184.	0.1701
299.	0.9922	2185.	0.1674
300.	0.9913	2186.	0.17
301.	0.9907	2187.	0.1676
302.	0.9896	2188.	0.1684
303.	0.9869	2189.	0.1684
304.	0.9789	2190.	0.1648
305.	0.9749	2191.	0.1685
306.	0.9752	2192.	0.166
307.	0.9786	2193.	0.1668
308.	0.9734	2194.	0.167
309.	0.9734	2195.	0.1647
310.	0.9738	2196.	0.1661
311.	0.9705	2197.	0.1668
312.	0.9699	2198.	0.1688
313.	0.9693	2199.	0.1663
314.	0.9675	2200.	0.1668
315.	0.9651	2201.	0.1639
316.	0.9654	2202.	0.1649
317.	0.9654	2203.	0.1659
318.	0.9606	2204.	0.1672
319.	0.9618	2205.	0.167
320.	0.961	2206.	0.1684
321.	0.9608	2207.	0.1631
322.	0.9599	2208.	0.1629
323.	0.9549	2209.	0.167
324.	0.9576	2210.	0.1658
325.	0.9572	2211.	0.1663
326.	0.9547	2212.	0.1636
327.	0.9566	2213.	0.1663
328.	0.9527	2214.	0.1661
329.	0.9548	2215.	0.1624
330.	0.9539	2216.	0.1639
331.	0.9527	2217.	0.1617
332.	0.9494	2218.	0.1646
333.	0.9493	2219.	0.1638
334.	0.9468	2220.	0.161
335.	0.9465	2221.	0.1631
336.	0.9436	2222.	0.161
337.	0.9445	2223.	0.1648
338.	0.9446	2224.	0.1599
339.	0.9403	2225.	0.1629
340.	0.9409	2226.	0.16
341.	0.9415	2227.	0.1641
342.	0.9429	2228.	0.1629
343.	0.9402	2229.	0.1603
344.	0.9394	2230.	0.1627
345.	0.9383	2231.	0.1622
346.	0.9375	2232.	0.1634
347.	0.9381	2233.	0.1609
348.	0.9376	2234.	0.1604
349.	0.938	2235.	0.1605
350.	0.9338	2236.	0.1613
351.	0.9311	2237.	0.159
352.	0.9296	2238.	0.1619
353.	0.9293	2239.	0.1596
354.	0.926	2240.	0.1586
355.	0.9262	2241.	0.1608
356.	0.9233	2242.	0.1615
357.	0.9242	2243.	0.162
358.	0.9295	2244.	0.1604

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
359.	0.9371	2245.	0.1591
360.	0.936	2246.	0.1596
361.	0.9344	2247.	0.1605
362.	0.9266	2248.	0.1582
363.	0.9241	2249.	0.158
364.	0.9277	2250.	0.1596
365.	0.9254	2251.	0.1586
366.	0.9234	2252.	0.1572
367.	0.9212	2253.	0.1553
368.	0.9215	2254.	0.1605
369.	0.9214	2255.	0.1597
370.	0.9168	2256.	0.1571
371.	0.9173	2257.	0.1561
372.	0.9165	2258.	0.1541
373.	0.9176	2259.	0.1574
374.	0.9147	2260.	0.156
375.	0.911	2261.	0.1551
376.	0.912	2262.	0.1578
377.	0.9119	2263.	0.1565
378.	0.9103	2264.	0.1562
379.	0.9113	2265.	0.1569
380.	0.9095	2266.	0.1572
381.	0.9073	2267.	0.1555
382.	0.9078	2268.	0.1568
383.	0.9066	2269.	0.1515
384.	0.9033	2270.	0.1569
385.	0.9032	2271.	0.1545
386.	0.9018	2272.	0.153
387.	0.9022	2273.	0.1561
388.	0.9021	2274.	0.1548
389.	0.8982	2275.	0.1542
390.	0.898	2276.	0.1543
391.	0.9013	2277.	0.1532
392.	0.897	2278.	0.151
393.	0.8942	2279.	0.1529
394.	0.8929	2280.	0.154
395.	0.8948	2281.	0.1549
396.	0.8944	2282.	0.153
397.	0.8934	2283.	0.1555
398.	0.8941	2284.	0.1536
399.	0.8909	2285.	0.1545
400.	0.8908	2286.	0.1521
401.	0.8898	2287.	0.1518
402.	0.8913	2288.	0.1539
403.	0.8851	2289.	0.1542
404.	0.8877	2290.	0.1514
405.	0.8849	2291.	0.1532
406.	0.8879	2292.	0.1522
407.	0.8839	2293.	0.1515
408.	0.8858	2294.	0.1491
409.	0.8824	2295.	0.1546
410.	0.8808	2296.	0.1515
411.	0.8794	2297.	0.1495
412.	0.881	2298.	0.151
413.	0.8779	2299.	0.1522
414.	0.8808	2300.	0.1518
415.	0.8762	2301.	0.1511
416.	0.8759	2302.	0.1495
417.	0.8853	2303.	0.1488
418.	0.8817	2304.	0.1496
419.	0.8833	2305.	0.1499
420.	0.885	2306.	0.1484
421.	0.8773	2307.	0.1511
422.	0.8641	2308.	0.1501
423.	0.866	2309.	0.148
424.	0.8669	2310.	0.1483

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
425.	0.8653	2311.	0.1485
426.	0.8657	2312.	0.1508
427.	0.8621	2313.	0.1515
428.	0.8612	2314.	0.1495
429.	0.8619	2315.	0.1486
430.	0.8604	2316.	0.1484
431.	0.8608	2317.	0.1507
432.	0.8577	2318.	0.1469
433.	0.8588	2319.	0.1494
434.	0.859	2320.	0.1462
435.	0.8554	2321.	0.147
436.	0.8564	2322.	0.1447
437.	0.8566	2323.	0.1459
438.	0.852	2324.	0.1464
439.	0.8538	2325.	0.1462
440.	0.854	2326.	0.1457
441.	0.8521	2327.	0.1434
442.	0.8485	2328.	0.1472
443.	0.8495	2329.	0.1495
444.	0.8473	2330.	0.1465
445.	0.8478	2331.	0.1468
446.	0.8433	2332.	0.1476
447.	0.8469	2333.	0.1456
448.	0.8449	2334.	0.1459
449.	0.842	2335.	0.1479
450.	0.8458	2336.	0.1463
451.	0.8424	2337.	0.1463
452.	0.8443	2338.	0.1457
453.	0.8411	2339.	0.1469
454.	0.8398	2340.	0.1449
455.	0.8384	2341.	0.1457
456.	0.8412	2342.	0.1455
457.	0.8382	2343.	0.1419
458.	0.8362	2344.	0.1407
459.	0.8356	2345.	0.1447
460.	0.8363	2346.	0.1428
461.	0.8351	2347.	0.1436
462.	0.837	2348.	0.1448
463.	0.8348	2349.	0.1415
464.	0.8333	2350.	0.1433
465.	0.8335	2351.	0.1414
466.	0.8332	2352.	0.1425
467.	0.8294	2353.	0.1449
468.	0.8301	2354.	0.1443
469.	0.8279	2355.	0.1417
470.	0.8256	2356.	0.1417
471.	0.828	2357.	0.1441
472.	0.8229	2358.	0.1442
473.	0.8256	2359.	0.1437
474.	0.8246	2360.	0.141
475.	0.8246	2361.	0.1422
476.	0.8254	2362.	0.1457
477.	0.8213	2363.	0.1411
478.	0.8245	2364.	0.1431
479.	0.8207	2365.	0.1433
480.	0.8213	2366.	0.1433
481.	0.8176	2367.	0.1441
482.	0.8177	2368.	0.1405
483.	0.8165	2369.	0.143
484.	0.8154	2370.	0.1377
485.	0.8155	2371.	0.144
486.	0.817	2372.	0.1426
487.	0.8107	2373.	0.1369
488.	0.8119	2374.	0.14
489.	0.8151	2375.	0.1388
490.	0.8139	2376.	0.1412

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
491.	0.8137	2377.	0.1395
492.	0.8144	2378.	0.139
493.	0.8105	2379.	0.1377
494.	0.8117	2380.	0.1363
495.	0.81	2381.	0.1367
496.	0.8094	2382.	0.1381
497.	0.8032	2383.	0.1364
498.	0.8049	2384.	0.1399
499.	0.8028	2385.	0.1383
500.	0.8034	2386.	0.1378
501.	0.8026	2387.	0.1358
502.	0.801	2388.	0.1381
503.	0.8007	2389.	0.1381
504.	0.7981	2390.	0.1408
505.	0.7996	2391.	0.1376
506.	0.7983	2392.	0.138
507.	0.7996	2393.	0.1387
508.	0.7943	2394.	0.1367
509.	0.8061	2395.	0.14
510.	0.8089	2396.	0.1411
511.	0.8067	2397.	0.1361
512.	0.8038	2398.	0.1383
513.	0.7977	2399.	0.1378
514.	0.7932	2400.	0.1356
515.	0.7944	2401.	0.1354
516.	0.7929	2402.	0.1367
517.	0.7897	2403.	0.1363
518.	0.7905	2404.	0.1376
519.	0.7896	2405.	0.1376
520.	0.789	2406.	0.1348
521.	0.7895	2407.	0.1381
522.	0.7882	2408.	0.1343
523.	0.7828	2409.	0.1359
524.	0.7847	2410.	0.1335
525.	0.7833	2411.	0.1335
526.	0.7852	2412.	0.1344
527.	0.7799	2413.	0.1351
528.	0.7835	2414.	0.1363
529.	0.7808	2415.	0.1355
530.	0.7803	2416.	0.1355
531.	0.7805	2417.	0.1323
532.	0.7802	2418.	0.1348
533.	0.7768	2419.	0.1332
534.	0.7768	2420.	0.1362
535.	0.7788	2421.	0.1327
536.	0.7768	2422.	0.1333
537.	0.7761	2423.	0.1306
538.	0.7775	2424.	0.1316
539.	0.7736	2425.	0.1331
540.	0.7757	2426.	0.1338
541.	0.7732	2427.	0.134
542.	0.7717	2428.	0.1324
543.	0.7731	2429.	0.133
544.	0.7718	2430.	0.1328
545.	0.7676	2431.	0.1317
546.	0.7709	2432.	0.133
547.	0.7645	2433.	0.1314
548.	0.7668	2434.	0.1309
549.	0.7668	2435.	0.135
550.	0.7678	2436.	0.132
551.	0.7716	2437.	0.1338
552.	0.778	2438.	0.1301
553.	0.7768	2439.	0.1302
554.	0.7762	2440.	0.1321
555.	0.7628	2441.	0.1318
556.	0.758	2442.	0.1293

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
557.	0.7589	2443.	0.1309
558.	0.7587	2444.	0.1313
559.	0.7599	2445.	0.128
560.	0.7582	2446.	0.1304
561.	0.7601	2447.	0.1327
562.	0.756	2448.	0.1338
563.	0.7553	2449.	0.1327
564.	0.7573	2450.	0.1298
565.	0.7561	2451.	0.1291
566.	0.7547	2452.	0.13
567.	0.7518	2453.	0.1323
568.	0.7538	2454.	0.1322
569.	0.7515	2455.	0.1296
570.	0.7472	2456.	0.1311
571.	0.7546	2457.	0.129
572.	0.752	2458.	0.1331
573.	0.7536	2459.	0.1285
574.	0.751	2460.	0.1333
575.	0.7485	2461.	0.1283
576.	0.7465	2462.	0.1298
577.	0.7462	2463.	0.1307
578.	0.7496	2464.	0.1302
579.	0.7434	2465.	0.1277
580.	0.742	2466.	0.1293
581.	0.744	2467.	0.1293
582.	0.7417	2468.	0.1195
583.	0.7433	2469.	0.1211
584.	0.7439	2470.	0.1223
585.	0.7448	2471.	0.1208
586.	0.7407	2472.	0.1197
587.	0.7367	2473.	0.1185
588.	0.7381	2474.	0.1056
589.	0.7394	2475.	0.1207
590.	0.7387	2476.	0.117
591.	0.7379	2477.	0.1218
592.	0.7357	2478.	0.1171
593.	0.7367	2479.	0.1166
594.	0.7351	2480.	0.1183
595.	0.7331	2481.	0.1198
596.	0.7344	2482.	0.119
597.	0.731	2483.	0.1363
598.	0.7415	2484.	0.1336
599.	0.7482	2485.	0.1331
600.	0.7462	2486.	0.1316
601.	0.7448	2487.	0.1294
602.	0.7423	2488.	0.128
603.	0.7279	2489.	0.1295
604.	0.7314	2490.	0.1295
605.	0.726	2491.	0.1292
606.	0.7248	2492.	0.1294
607.	0.7293	2493.	0.1283
608.	0.724	2494.	0.1275
609.	0.7233	2495.	0.1322
610.	0.7242	2496.	0.1296
611.	0.7204	2497.	0.1279
612.	0.723	2498.	0.1307
613.	0.7209	2499.	0.1279
614.	0.7221	2500.	0.1275
615.	0.7202	2501.	0.1274
616.	0.7168	2502.	0.1269
617.	0.7185	2503.	0.1281
618.	0.7185	2504.	0.1282
619.	0.717	2505.	0.1308
620.	0.7181	2506.	0.1262
621.	0.7169	2507.	0.1306
622.	0.7133	2508.	0.1284

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
623.	0.7171	2509.	0.1268
624.	0.7138	2510.	0.1271
625.	0.7137	2511.	0.1306
626.	0.7147	2512.	0.1289
627.	0.715	2513.	0.1276
628.	0.7096	2514.	0.1241
629.	0.71	2515.	0.1275
630.	0.7104	2516.	0.1277
631.	0.7085	2517.	0.1269
632.	0.7095	2518.	0.1283
633.	0.708	2519.	0.1252
634.	0.7111	2520.	0.1233
635.	0.7073	2521.	0.1269
636.	0.708	2522.	0.1238
637.	0.7059	2523.	0.1271
638.	0.7044	2524.	0.1275
639.	0.7035	2525.	0.1257
640.	0.703	2526.	0.1282
641.	0.7023	2527.	0.1231
642.	0.7	2528.	0.1247
643.	0.7002	2529.	0.1264
644.	0.6978	2530.	0.126
645.	0.6994	2531.	0.1287
646.	0.698	2532.	0.1274
647.	0.6973	2533.	0.124
648.	0.6983	2534.	0.1289
649.	0.6959	2535.	0.1259
650.	0.6977	2536.	0.1239
651.	0.6964	2537.	0.1229
652.	0.6975	2538.	0.1265
653.	0.6967	2539.	0.1228
654.	0.6926	2540.	0.1214
655.	0.6956	2541.	0.1231
656.	0.6902	2542.	0.1233
657.	0.6903	2543.	0.1234
658.	0.6892	2544.	0.1257
659.	0.6894	2545.	0.1253
660.	0.6916	2546.	0.1218
661.	0.6894	2547.	0.1253
662.	0.6873	2548.	0.1252
663.	0.6861	2549.	0.125
664.	0.6886	2550.	0.1254
665.	0.6855	2551.	0.1257
666.	0.6832	2552.	0.1211
667.	0.6992	2553.	0.1244
668.	0.6977	2554.	0.1226
669.	0.701	2555.	0.1226
670.	0.6793	2556.	0.1223
671.	0.6828	2557.	0.1228
672.	0.6785	2558.	0.1227
673.	0.6792	2559.	0.1239
674.	0.6793	2560.	0.1228
675.	0.6792	2561.	0.1225
676.	0.6789	2562.	0.1228
677.	0.6805	2563.	0.1224
678.	0.6796	2564.	0.1223
679.	0.6749	2565.	0.1228
680.	0.6763	2566.	0.1233
681.	0.6746	2567.	0.1224
682.	0.6741	2568.	0.1221
683.	0.6762	2569.	0.1229
684.	0.672	2570.	0.1195
685.	0.6758	2571.	0.1229
686.	0.6734	2572.	0.1185
687.	0.6753	2573.	0.1205
688.	0.6717	2574.	0.1198

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
689.	0.6722	2575.	0.1211
690.	0.6712	2576.	0.1218
691.	0.673	2577.	0.1223
692.	0.67	2578.	0.1211
693.	0.6706	2579.	0.1188
694.	0.6696	2580.	0.1186
695.	0.6667	2581.	0.1205
696.	0.6681	2582.	0.1197
697.	0.6649	2583.	0.1186
698.	0.6683	2584.	0.1198
699.	0.6668	2585.	0.1188
700.	0.6639	2586.	0.1179
701.	0.6632	2587.	0.1196
702.	0.6593	2588.	0.1164
703.	0.6631	2589.	0.1192
704.	0.6619	2590.	0.1144
705.	0.6615	2591.	0.1235
706.	0.6605	2592.	0.1155
707.	0.6614	2593.	0.1178
708.	0.662	2594.	0.1199
709.	0.6588	2595.	0.1169
710.	0.6565	2596.	0.1206
711.	0.656	2597.	0.119
712.	0.6579	2598.	0.1201
713.	0.6543	2599.	0.1144
714.	0.6558	2600.	0.1157
715.	0.6551	2601.	0.1168
716.	0.6539	2602.	0.118
717.	0.6561	2603.	0.1198
718.	0.6494	2604.	0.1187
719.	0.6488	2605.	0.1156
720.	0.6491	2606.	0.1161
721.	0.6576	2607.	0.1148
722.	0.6624	2608.	0.1164
723.	0.6651	2609.	0.1176
724.	0.6619	2610.	0.1156
725.	0.661	2611.	0.1174
726.	0.6472	2612.	0.1148
727.	0.6461	2613.	0.1167
728.	0.6473	2614.	0.1156
729.	0.6471	2615.	0.1159
730.	0.645	2616.	0.1173
731.	0.642	2617.	0.1161
732.	0.642	2618.	0.1164
733.	0.6452	2619.	0.1161
734.	0.6419	2620.	0.1167
735.	0.6395	2621.	0.1138
736.	0.6428	2622.	0.1185
737.	0.639	2623.	0.1126
738.	0.6402	2624.	0.115
739.	0.6393	2625.	0.1169
740.	0.6378	2626.	0.1142
741.	0.6412	2627.	0.1132
742.	0.6383	2628.	0.1141
743.	0.6357	2629.	0.1152
744.	0.6373	2630.	0.1163
745.	0.6365	2631.	0.1154
746.	0.6352	2632.	0.1134
747.	0.6378	2633.	0.1114
748.	0.6359	2634.	0.115
749.	0.6376	2635.	0.115
750.	0.6345	2636.	0.1158
751.	0.6321	2637.	0.1134
752.	0.6302	2638.	0.1117
753.	0.6323	2639.	0.1151
754.	0.6306	2640.	0.1109

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
755.	0.6276	2641.	0.1123
756.	0.6298	2642.	0.1152
757.	0.6249	2643.	0.1127
758.	0.6309	2644.	0.1141
759.	0.6251	2645.	0.1115
760.	0.6294	2646.	0.1123
761.	0.6263	2647.	0.1141
762.	0.6276	2648.	0.11
763.	0.6247	2649.	0.1123
764.	0.6275	2650.	0.1138
765.	0.6258	2651.	0.1112
766.	0.6233	2652.	0.1109
767.	0.6224	2653.	0.1116
768.	0.6251	2654.	0.1121
769.	0.6217	2655.	0.1112
770.	0.6248	2656.	0.1083
771.	0.6208	2657.	0.114
772.	0.6234	2658.	0.1098
773.	0.6225	2659.	0.112
774.	0.6184	2660.	0.1103
775.	0.6201	2661.	0.113
776.	0.6212	2662.	0.1076
777.	0.6165	2663.	0.1099
778.	0.6156	2664.	0.1102
779.	0.6178	2665.	0.1106
780.	0.6153	2666.	0.1088
781.	0.6132	2667.	0.1083
782.	0.6146	2668.	0.1084
783.	0.6156	2669.	0.1092
784.	0.6112	2670.	0.1085
785.	0.6114	2671.	0.1103
786.	0.61	2672.	0.1086
787.	0.6114	2673.	0.1098
788.	0.6104	2674.	0.1084
789.	0.6098	2675.	0.1082
790.	0.6098	2676.	0.113
791.	0.6065	2677.	0.1122
792.	0.6058	2678.	0.1092
793.	0.6044	2679.	0.1104
794.	0.6059	2680.	0.1119
795.	0.6038	2681.	0.1091
796.	0.6034	2682.	0.1109
797.	0.6032	2683.	0.1086
798.	0.6008	2684.	0.1074
799.	0.6039	2685.	0.1104
800.	0.5993	2686.	0.1091
801.	0.5997	2687.	0.1113
802.	0.6024	2688.	0.1069
803.	0.6003	2689.	0.1087
804.	0.5992	2690.	0.1113
805.	0.5993	2691.	0.1097
806.	0.6034	2692.	0.1089
807.	0.597	2693.	0.1058
808.	0.5947	2694.	0.1109
809.	0.6009	2695.	0.1078
810.	0.5948	2696.	0.1092
811.	0.597	2697.	0.1085
812.	0.5962	2698.	0.1055
813.	0.5971	2699.	0.1097
814.	0.5929	2700.	0.1073
815.	0.5927	2701.	0.1075
816.	0.5907	2702.	0.1055
817.	0.5907	2703.	0.1082
818.	0.594	2704.	0.1056
819.	0.5914	2705.	0.1051
820.	0.5908	2706.	0.1081

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
821.	0.5888	2707.	0.1082
822.	0.5869	2708.	0.1058
823.	0.5872	2709.	0.1081
824.	0.5897	2710.	0.1055
825.	0.5854	2711.	0.1056
826.	0.5885	2712.	0.1093
827.	0.589	2713.	0.1067
828.	0.5872	2714.	0.1059
829.	0.5838	2715.	0.1083
830.	0.5873	2716.	0.1075
831.	0.5861	2717.	0.1074
832.	0.5872	2718.	0.1077
833.	0.5816	2719.	0.1055
834.	0.5819	2720.	0.1051
835.	0.5828	2721.	0.106
836.	0.5824	2722.	0.105
837.	0.5834	2723.	0.1029
838.	0.5842	2724.	0.1062
839.	0.5791	2725.	0.1068
840.	0.5804	2726.	0.1052
841.	0.5815	2727.	0.1036
842.	0.5803	2728.	0.1074
843.	0.5801	2729.	0.1075
844.	0.579	2730.	0.1041
845.	0.5766	2731.	0.1035
846.	0.5749	2732.	0.1027
847.	0.5797	2733.	0.1052
848.	0.5754	2734.	0.1012
849.	0.5772	2735.	0.1016
850.	0.5774	2736.	0.1042
851.	0.5758	2737.	0.1035
852.	0.5736	2738.	0.1032
853.	0.5753	2739.	0.1035
854.	0.5736	2740.	0.1022
855.	0.5722	2741.	0.1022
856.	0.5742	2742.	0.1039
857.	0.5748	2743.	0.1036
858.	0.572	2744.	0.103
859.	0.57	2745.	0.1045
860.	0.5723	2746.	0.1051
861.	0.5704	2747.	0.1029
862.	0.5673	2748.	0.1027
863.	0.5668	2749.	0.1018
864.	0.567	2750.	0.1036
865.	0.5663	2751.	0.1011
866.	0.5649	2752.	0.102
867.	0.5665	2753.	0.1046
868.	0.5692	2754.	0.102
869.	0.5613	2755.	0.1041
870.	0.5646	2756.	0.1034
871.	0.5659	2757.	0.1035
872.	0.5625	2758.	0.1017
873.	0.5623	2759.	0.1026
874.	0.5628	2760.	0.1049
875.	0.5611	2761.	0.1009
876.	0.5609	2762.	0.1013
877.	0.5578	2763.	0.1039
878.	0.5599	2764.	0.1018
879.	0.5595	2765.	0.1015
880.	0.5586	2766.	0.1029
881.	0.5578	2767.	0.1008
882.	0.5582	2768.	0.1004
883.	0.5547	2769.	0.0988
884.	0.5578	2770.	0.0988
885.	0.556	2771.	0.1018
886.	0.5563	2772.	0.0995

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
887.	0.5565	2773.	0.1005
888.	0.5538	2774.	0.0989
889.	0.557	2775.	0.0996
890.	0.5568	2776.	0.1005
891.	0.5523	2777.	0.0996
892.	0.5523	2778.	0.0983
893.	0.5528	2779.	0.0979
894.	0.5482	2780.	0.1011
895.	0.5496	2781.	0.0978
896.	0.5511	2782.	0.0999
897.	0.5495	2783.	0.0995
898.	0.5494	2784.	0.0972
899.	0.549	2785.	0.1
900.	0.5552	2786.	0.0987
901.	0.5615	2787.	0.0956
902.	0.5586	2788.	0.0977
903.	0.5623	2789.	0.0993
904.	0.5634	2790.	0.0968
905.	0.5587	2791.	0.0988
906.	0.5599	2792.	0.0996
907.	0.5593	2793.	0.0991
908.	0.5594	2794.	0.1
909.	0.5585	2795.	0.099
910.	0.557	2796.	0.099
911.	0.5525	2797.	0.0951
912.	0.5573	2798.	0.0984
913.	0.5551	2799.	0.0978
914.	0.5525	2800.	0.1001
915.	0.555	2801.	0.0994
916.	0.5539	2802.	0.097
917.	0.5535	2803.	0.1001
918.	0.5527	2804.	0.0963
919.	0.5525	2805.	0.098
920.	0.5515	2806.	0.0949
921.	0.5467	2807.	0.098
922.	0.5531	2808.	0.0958
923.	0.5482	2809.	0.0986
924.	0.5478	2810.	0.0962
925.	0.5467	2811.	0.0962
926.	0.5544	2812.	0.097
927.	0.5482	2813.	0.0944
928.	0.5463	2814.	0.0936
929.	0.5459	2815.	0.0976
930.	0.547	2816.	0.0957
931.	0.5456	2817.	0.0982
932.	0.546	2818.	0.097
933.	0.5456	2819.	0.0967
934.	0.545	2820.	0.0961
935.	0.544	2821.	0.1001
936.	0.5405	2822.	0.0928
937.	0.5442	2823.	0.0959
938.	0.5406	2824.	0.0977
939.	0.5388	2825.	0.0972
940.	0.5387	2826.	0.0981
941.	0.54	2827.	0.0944
942.	0.5409	2828.	0.0973
943.	0.538	2829.	0.096
944.	0.5368	2830.	0.0969
945.	0.5392	2831.	0.0941
946.	0.5377	2832.	0.0992
947.	0.5367	2833.	0.0952
948.	0.5353	2834.	0.0982
949.	0.5354	2835.	0.0975
950.	0.5343	2836.	0.0951
951.	0.5339	2837.	0.0977
952.	0.5348	2838.	0.0935

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
953.	0.5325	2839.	0.0939
954.	0.5297	2840.	0.0966
955.	0.5318	2841.	0.092
956.	0.531	2842.	0.0964
957.	0.5286	2843.	0.0924
958.	0.5321	2844.	0.0958
959.	0.5288	2845.	0.0962
960.	0.5291	2846.	0.0953
961.	0.5272	2847.	0.0962
962.	0.526	2848.	0.0941
963.	0.5269	2849.	0.0991
964.	0.5246	2850.	0.0982
965.	0.5258	2851.	0.0972
966.	0.5273	2852.	0.093
967.	0.5231	2853.	0.0931
968.	0.5267	2854.	0.0939
969.	0.5256	2855.	0.0947
970.	0.5248	2856.	0.091
971.	0.5238	2857.	0.0944
972.	0.5209	2858.	0.0914
973.	0.5226	2859.	0.0945
974.	0.5201	2860.	0.0939
975.	0.5186	2861.	0.0896
976.	0.5205	2862.	0.0919
977.	0.5207	2863.	0.0922
978.	0.5163	2864.	0.0914
979.	0.5196	2865.	0.094
980.	0.5182	2866.	0.0927
981.	0.5177	2867.	0.0933
982.	0.5162	2868.	0.092
983.	0.5135	2869.	0.0906
984.	0.5144	2870.	0.0934
985.	0.515	2871.	0.0931
986.	0.5159	2872.	0.0922
987.	0.5148	2873.	0.091
988.	0.5118	2874.	0.0937
989.	0.5151	2875.	0.0925
990.	0.5138	2876.	0.0935
991.	0.5126	2877.	0.0934
992.	0.5109	2878.	0.0889
993.	0.512	2879.	0.092
994.	0.5143	2880.	0.091
995.	0.5139	2881.	0.0912
996.	0.5124	2882.	0.0907
997.	0.5086	2883.	0.0945
998.	0.5106	2884.	0.0923
999.	0.5112	2885.	0.0925
1000.	0.5091	2886.	0.0929
1001.	0.5089	2887.	0.0932
1002.	0.5087	2888.	0.0937
1003.	0.5066	2889.	0.092
1004.	0.5057	2890.	0.0915
1005.	0.5052	2891.	0.0889
1006.	0.505	2892.	0.0922
1007.	0.5065	2893.	0.0932
1008.	0.5078	2894.	0.0938
1009.	0.5041	2895.	0.0894
1010.	0.5021	2896.	0.0898
1011.	0.5027	2897.	0.0906
1012.	0.5028	2898.	0.0932
1013.	0.5009	2899.	0.0915
1014.	0.5033	2900.	0.091
1015.	0.5002	2901.	0.0891
1016.	0.4993	2902.	0.0922
1017.	0.5035	2903.	0.088
1018.	0.4966	2904.	0.0896

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1019.	0.4974	2905.	0.0903
1020.	0.4978	2906.	0.0892
1021.	0.4992	2907.	0.0938
1022.	0.4954	2908.	0.0908
1023.	0.494	2909.	0.0886
1024.	0.4987	2910.	0.0891
1025.	0.4967	2911.	0.0907
1026.	0.4943	2912.	0.0873
1027.	0.4916	2913.	0.0901
1028.	0.4966	2914.	0.0877
1029.	0.4934	2915.	0.0913
1030.	0.4935	2916.	0.0894
1031.	0.4957	2917.	0.0922
1032.	0.4944	2918.	0.0884
1033.	0.4896	2919.	0.0884
1034.	0.492	2920.	0.0883
1035.	0.4952	2921.	0.0888
1036.	0.4937	2922.	0.0895
1037.	0.4964	2923.	0.0877
1038.	0.4949	2924.	0.0892
1039.	0.4946	2925.	0.0895
1040.	0.4954	2926.	0.0894
1041.	0.4923	2927.	0.0903
1042.	0.4937	2928.	0.0879
1043.	0.4891	2929.	0.0896
1044.	0.4903	2930.	0.0876
1045.	0.4904	2931.	0.0884
1046.	0.4904	2932.	0.0874
1047.	0.4898	2933.	0.0859
1048.	0.4914	2934.	0.0884
1049.	0.4905	2935.	0.0864
1050.	0.4865	2936.	0.088
1051.	0.4891	2937.	0.0891
1052.	0.488	2938.	0.0867
1053.	0.487	2939.	0.0877
1054.	0.489	2940.	0.0871
1055.	0.4875	2941.	0.0867
1056.	0.4879	2942.	0.0884
1057.	0.4877	2943.	0.0891
1058.	0.4859	2944.	0.0872
1059.	0.4859	2945.	0.0856
1060.	0.4845	2946.	0.0824
1061.	0.482	2947.	0.085
1062.	0.4866	2948.	0.0877
1063.	0.4847	2949.	0.0848
1064.	0.4851	2950.	0.0855
1065.	0.4817	2951.	0.0842
1066.	0.483	2952.	0.0872
1067.	0.4845	2953.	0.084
1068.	0.4812	2954.	0.0892
1069.	0.4837	2955.	0.0851
1070.	0.4799	2956.	0.0841
1071.	0.4809	2957.	0.086
1072.	0.4799	2958.	0.0855
1073.	0.4823	2959.	0.0843
1074.	0.478	2960.	0.0858
1075.	0.477	2961.	0.0838
1076.	0.4739	2962.	0.0851
1077.	0.4766	2963.	0.0845
1078.	0.4765	2964.	0.0837
1079.	0.4777	2965.	0.0868
1080.	0.4741	2966.	0.084
1081.	0.4746	2967.	0.0839
1082.	0.4746	2968.	0.0812
1083.	0.4745	2969.	0.0872
1084.	0.4729	2970.	0.087

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1085.	0.4729	2971.	0.0832
1086.	0.4756	2972.	0.0846
1087.	0.4734	2973.	0.0839
1088.	0.4706	2974.	0.0843
1089.	0.4727	2975.	0.085
1090.	0.4749	2976.	0.0844
1091.	0.4708	2977.	0.0844
1092.	0.4712	2978.	0.0836
1093.	0.4698	2979.	0.0839
1094.	0.4691	2980.	0.0827
1095.	0.4699	2981.	0.0844
1096.	0.471	2982.	0.0824
1097.	0.4699	2983.	0.0848
1098.	0.4687	2984.	0.0856
1099.	0.4699	2985.	0.0851
1100.	0.465	2986.	0.0863
1101.	0.4656	2987.	0.0805
1102.	0.466	2988.	0.0858
1103.	0.4645	2989.	0.081
1104.	0.4636	2990.	0.0822
1105.	0.4644	2991.	0.0853
1106.	0.467	2992.	0.0834
1107.	0.4659	2993.	0.0882
1108.	0.4658	2994.	0.0858
1109.	0.4659	2995.	0.0831
1110.	0.4627	2996.	0.0855
1111.	0.4646	2997.	0.0848
1112.	0.4603	2998.	0.0853
1113.	0.4602	2999.	0.0853
1114.	0.4598	3000.	0.0874
1115.	0.4604	3001.	0.0823
1116.	0.4578	3002.	0.0843
1117.	0.4586	3003.	0.083
1118.	0.4571	3004.	0.0839
1119.	0.4581	3005.	0.0834
1120.	0.4596	3006.	0.0824
1121.	0.4594	3007.	0.0832
1122.	0.4573	3008.	0.0797
1123.	0.4531	3009.	0.0826
1124.	0.4578	3010.	0.0833
1125.	0.4531	3011.	0.0834
1126.	0.4538	3012.	0.0793
1127.	0.4556	3013.	0.0836
1128.	0.4531	3014.	0.0785
1129.	0.4548	3015.	0.0816
1130.	0.4538	3016.	0.0793
1131.	0.4551	3017.	0.0809
1132.	0.4521	3018.	0.0792
1133.	0.4555	3019.	0.082
1134.	0.4534	3020.	0.079
1135.	0.4504	3021.	0.0807
1136.	0.4507	3022.	0.0846
1137.	0.4498	3023.	0.0827
1138.	0.4503	3024.	0.0841
1139.	0.4516	3025.	0.0788
1140.	0.4533	3026.	0.0839
1141.	0.4486	3027.	0.0785
1142.	0.448	3028.	0.0815
1143.	0.445	3029.	0.0796
1144.	0.444	3030.	0.08
1145.	0.4445	3031.	0.0798
1146.	0.4431	3032.	0.0781
1147.	0.446	3033.	0.0829
1148.	0.446	3034.	0.0782
1149.	0.4369	3035.	0.0814
1150.	0.4444	3036.	0.0801

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1151.	0.4454	3037.	0.08
1152.	0.4459	3038.	0.0803
1153.	0.4448	3039.	0.0782
1154.	0.445	3040.	0.0805
1155.	0.4448	3041.	0.0807
1156.	0.445	3042.	0.0822
1157.	0.4431	3043.	0.0786
1158.	0.4446	3044.	0.0778
1159.	0.441	3045.	0.0804
1160.	0.4431	3046.	0.0826
1161.	0.4421	3047.	0.0774
1162.	0.4389	3048.	0.0797
1163.	0.4423	3049.	0.0796
1164.	0.4401	3050.	0.0793
1165.	0.4417	3051.	0.0786
1166.	0.4387	3052.	0.0798
1167.	0.4407	3053.	0.0822
1168.	0.4377	3054.	0.0808
1169.	0.4413	3055.	0.0779
1170.	0.4372	3056.	0.08
1171.	0.4388	3057.	0.0808
1172.	0.44	3058.	0.0765
1173.	0.4362	3059.	0.0789
1174.	0.4381	3060.	0.0804
1175.	0.4345	3061.	0.0787
1176.	0.4354	3062.	0.0785
1177.	0.436	3063.	0.0809
1178.	0.4361	3064.	0.0782
1179.	0.4315	3065.	0.0812
1180.	0.4347	3066.	0.0772
1181.	0.4332	3067.	0.0791
1182.	0.4309	3068.	0.0792
1183.	0.4355	3069.	0.0765
1184.	0.4336	3070.	0.0794
1185.	0.4312	3071.	0.0767
1186.	0.4309	3072.	0.0824
1187.	0.4316	3073.	0.0798
1188.	0.4295	3074.	0.0767
1189.	0.4304	3075.	0.0765
1190.	0.4302	3076.	0.0748
1191.	0.4285	3077.	0.0774
1192.	0.4293	3078.	0.0753
1193.	0.43	3079.	0.0784
1194.	0.4291	3080.	0.0787
1195.	0.4288	3081.	0.0766
1196.	0.4281	3082.	0.0767
1197.	0.4226	3083.	0.0753
1198.	0.4283	3084.	0.0767
1199.	0.4267	3085.	0.0784
1200.	0.4247	3086.	0.0769
1201.	0.428	3087.	0.0761
1202.	0.4289	3088.	0.08
1203.	0.4231	3089.	0.0767
1204.	0.422	3090.	0.079
1205.	0.4264	3091.	0.0765
1206.	0.4235	3092.	0.0737
1207.	0.4238	3093.	0.0877
1208.	0.4245	3094.	0.0828
1209.	0.421	3095.	0.0829
1210.	0.4217	3096.	0.0816
1211.	0.4207	3097.	0.08
1212.	0.4221	3098.	0.0767
1213.	0.4188	3099.	0.0754
1214.	0.4199	3100.	0.0767
1215.	0.4195	3101.	0.0779
1216.	0.4168	3102.	0.0775

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1217.	0.4199	3103.	0.0771
1218.	0.4162	3104.	0.0757
1219.	0.4166	3105.	0.0734
1220.	0.418	3106.	0.0753
1221.	0.4183	3107.	0.0789
1222.	0.4181	3108.	0.0765
1223.	0.418	3109.	0.0762
1224.	0.4157	3110.	0.0749
1225.	0.4161	3111.	0.0779
1226.	0.4157	3112.	0.0767
1227.	0.4151	3113.	0.0722
1228.	0.4136	3114.	0.0761
1229.	0.4109	3115.	0.0786
1230.	0.4152	3116.	0.0762
1231.	0.4121	3117.	0.0774
1232.	0.4156	3118.	0.0765
1233.	0.4117	3119.	0.0755
1234.	0.4105	3120.	0.0755
1235.	0.4144	3121.	0.0772
1236.	0.4097	3122.	0.0745
1237.	0.4099	3123.	0.0777
1238.	0.4111	3124.	0.0765
1239.	0.4127	3125.	0.0789
1240.	0.4066	3126.	0.0734
1241.	0.4083	3127.	0.0765
1242.	0.4104	3128.	0.0765
1243.	0.4079	3129.	0.0762
1244.	0.409	3130.	0.0769
1245.	0.4093	3131.	0.0731
1246.	0.407	3132.	0.0753
1247.	0.4081	3133.	0.0751
1248.	0.4066	3134.	0.0741
1249.	0.4056	3135.	0.0767
1250.	0.4104	3136.	0.0717
1251.	0.4039	3137.	0.076
1252.	0.4037	3138.	0.0747
1253.	0.4051	3139.	0.0756
1254.	0.4047	3140.	0.074
1255.	0.4027	3141.	0.0741
1256.	0.4007	3142.	0.0772
1257.	0.4045	3143.	0.0741
1258.	0.4044	3144.	0.0754
1259.	0.4041	3145.	0.0743
1260.	0.4027	3146.	0.0736
1261.	0.4037	3147.	0.0727
1262.	0.4011	3148.	0.0744
1263.	0.4051	3149.	0.0715
1264.	0.4005	3150.	0.0734
1265.	0.4059	3151.	0.0722
1266.	0.4002	3152.	0.0747
1267.	0.3986	3153.	0.072
1268.	0.3907	3154.	0.0733
1269.	0.3882	3155.	0.0741
1270.	0.3932	3156.	0.075
1271.	0.3913	3157.	0.0737
1272.	0.3929	3158.	0.0732
1273.	0.3926	3159.	0.0748
1274.	0.3907	3160.	0.0724
1275.	0.3899	3161.	0.0693
1276.	0.391	3162.	0.0736
1277.	0.3915	3163.	0.0731
1278.	0.3868	3164.	0.0755
1279.	0.3883	3165.	0.0721
1280.	0.3897	3166.	0.0767
1281.	0.3883	3167.	0.0718
1282.	0.3886	3168.	0.0715

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1283.	0.3863	3169.	0.075
1284.	0.3851	3170.	0.0724
1285.	0.3886	3171.	0.072
1286.	0.3887	3172.	0.0737
1287.	0.3875	3173.	0.0717
1288.	0.3839	3174.	0.0712
1289.	0.3851	3175.	0.0712
1290.	0.3842	3176.	0.0727
1291.	0.3824	3177.	0.0737
1292.	0.3817	3178.	0.0715
1293.	0.3832	3179.	0.0744
1294.	0.3833	3180.	0.0724
1295.	0.3834	3181.	0.0757
1296.	0.3836	3182.	0.0713
1297.	0.3817	3183.	0.0721
1298.	0.3828	3184.	0.0717
1299.	0.3817	3185.	0.0736
1300.	0.3818	3186.	0.0724
1301.	0.3808	3187.	0.0717
1302.	0.3801	3188.	0.0727
1303.	0.3773	3189.	0.0722
1304.	0.3778	3190.	0.0683
1305.	0.3782	3191.	0.0727
1306.	0.3793	3192.	0.0689
1307.	0.3805	3193.	0.0685
1308.	0.3738	3194.	0.072
1309.	0.3776	3195.	0.0708
1310.	0.3788	3196.	0.0698
1311.	0.3754	3197.	0.0736
1312.	0.3756	3198.	0.0696
1313.	0.3739	3199.	0.0702
1314.	0.3764	3200.	0.0691
1315.	0.3746	3201.	0.0736
1316.	0.3764	3202.	0.0709
1317.	0.3718	3203.	0.0715
1318.	0.3743	3204.	0.0722
1319.	0.3711	3205.	0.0735
1320.	0.3715	3206.	0.0687
1321.	0.3716	3207.	0.0685
1322.	0.3707	3208.	0.071
1323.	0.3738	3209.	0.0734
1324.	0.3698	3210.	0.0706
1325.	0.3736	3211.	0.071
1326.	0.3728	3212.	0.0727
1327.	0.3701	3213.	0.0683
1328.	0.369	3214.	0.0703
1329.	0.3709	3215.	0.0661
1330.	0.3693	3216.	0.0676
1331.	0.3662	3217.	0.0712
1332.	0.3664	3218.	0.071
1333.	0.3674	3219.	0.0695
1334.	0.368	3220.	0.0679
1335.	0.3683	3221.	0.0691
1336.	0.3644	3222.	0.0699
1337.	0.3645	3223.	0.0724
1338.	0.3684	3224.	0.0717
1339.	0.3681	3225.	0.0727
1340.	0.3667	3226.	0.0721
1341.	0.3662	3227.	0.0714
1342.	0.3655	3228.	0.0662
1343.	0.3646	3229.	0.069
1344.	0.3655	3230.	0.0681
1345.	0.3633	3231.	0.0713
1346.	0.3615	3232.	0.0704
1347.	0.3585	3233.	0.071
1348.	0.3652	3234.	0.0705

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1349.	0.3617	3235.	0.0691
1350.	0.3607	3236.	0.068
1351.	0.3648	3237.	0.0708
1352.	0.3622	3238.	0.066
1353.	0.3615	3239.	0.0698
1354.	0.3594	3240.	0.0631
1355.	0.3604	3241.	0.0661
1356.	0.3593	3242.	0.066
1357.	0.3601	3243.	0.0679
1358.	0.3612	3244.	0.0667
1359.	0.3562	3245.	0.066
1360.	0.3574	3246.	0.0675
1361.	0.358	3247.	0.0705
1362.	0.3602	3248.	0.07
1363.	0.3562	3249.	0.0667
1364.	0.3577	3250.	0.0672
1365.	0.3563	3251.	0.0654
1366.	0.357	3252.	0.0669
1367.	0.3567	3253.	0.0677
1368.	0.3571	3254.	0.0676
1369.	0.3576	3255.	0.0678
1370.	0.355	3256.	0.0688
1371.	0.3517	3257.	0.0699
1372.	0.3554	3258.	0.0672
1373.	0.3545	3259.	0.0688
1374.	0.3555	3260.	0.0637
1375.	0.3533	3261.	0.0672
1376.	0.3521	3262.	0.0695
1377.	0.3533	3263.	0.0664
1378.	0.3521	3264.	0.0659
1379.	0.3514	3265.	0.0678
1380.	0.3482	3266.	0.0645
1381.	0.3509	3267.	0.066
1382.	0.3532	3268.	0.0672
1383.	0.3492	3269.	0.0658
1384.	0.3523	3270.	0.0681
1385.	0.3492	3271.	0.0645
1386.	0.3525	3272.	0.0668
1387.	0.3487	3273.	0.0699
1388.	0.3506	3274.	0.0696
1389.	0.3519	3275.	0.066
1390.	0.3466	3276.	0.0664
1391.	0.3462	3277.	0.0688
1392.	0.3476	3278.	0.066
1393.	0.3426	3279.	0.0645
1394.	0.3468	3280.	0.0674
1395.	0.3448	3281.	0.0664
1396.	0.3452	3282.	0.0671
1397.	0.3435	3283.	0.0636
1398.	0.3478	3284.	0.0663
1399.	0.3463	3285.	0.0653
1400.	0.3447	3286.	0.0651
1401.	0.3433	3287.	0.0655
1402.	0.3433	3288.	0.0652
1403.	0.3445	3289.	0.0667
1404.	0.345	3290.	0.0628
1405.	0.3445	3291.	0.0639
1406.	0.3411	3292.	0.0637
1407.	0.3442	3293.	0.0626
1408.	0.3411	3294.	0.0657
1409.	0.339	3295.	0.0636
1410.	0.3402	3296.	0.0642
1411.	0.3402	3297.	0.0642
1412.	0.338	3298.	0.0635
1413.	0.3389	3299.	0.0629
1414.	0.3407	3300.	0.065

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1415.	0.3404	3301.	0.0623
1416.	0.3394	3302.	0.0612
1417.	0.3361	3303.	0.0603
1418.	0.3368	3304.	0.0634
1419.	0.3395	3305.	0.0603
1420.	0.3372	3306.	0.0617
1421.	0.3369	3307.	0.0605
1422.	0.3373	3308.	0.0623
1423.	0.3337	3309.	0.06
1424.	0.3368	3310.	0.0615
1425.	0.3366	3311.	0.0619
1426.	0.3354	3312.	0.0631
1427.	0.3356	3313.	0.0619
1428.	0.3337	3314.	0.0648
1429.	0.3334	3315.	0.0617
1430.	0.3342	3316.	0.0614
1431.	0.3335	3317.	0.0631
1432.	0.3332	3318.	0.0644
1433.	0.3336	3319.	0.0663
1434.	0.3312	3320.	0.0626
1435.	0.3337	3321.	0.063
1436.	0.3327	3322.	0.0651
1437.	0.3331	3323.	0.0643
1438.	0.3306	3324.	0.0614
1439.	0.3297	3325.	0.0607
1440.	0.3305	3326.	0.0632
1441.	0.3306	3327.	0.0607
1442.	0.3299	3328.	0.0619
1443.	0.3301	3329.	0.0648
1444.	0.3302	3330.	0.0605
1445.	0.3276	3331.	0.0619
1446.	0.3251	3332.	0.0643
1447.	0.3275	3333.	0.0622
1448.	0.3279	3334.	0.0636
1449.	0.3301	3335.	0.0602
1450.	0.3261	3336.	0.062
1451.	0.3263	3337.	0.0648
1452.	0.3283	3338.	0.0619
1453.	0.3263	3339.	0.0609
1454.	0.3266	3340.	0.0648
1455.	0.3235	3341.	0.0602
1456.	0.3249	3342.	0.0584
1457.	0.3235	3343.	0.0618
1458.	0.3225	3344.	0.0602
1459.	0.3262	3345.	0.0626
1460.	0.3274	3346.	0.064
1461.	0.3244	3347.	0.0597
1462.	0.3261	3348.	0.0602
1463.	0.3218	3349.	0.0645
1464.	0.3227	3350.	0.0628
1465.	0.324	3351.	0.0601
1466.	0.3238	3352.	0.0602
1467.	0.3212	3353.	0.0618
1468.	0.3211	3354.	0.0579
1469.	0.3216	3355.	0.0617
1470.	0.3223	3356.	0.0599
1471.	0.3188	3357.	0.057
1472.	0.3208	3358.	0.0608
1473.	0.3177	3359.	0.0587
1474.	0.3206	3360.	0.0607
1475.	0.3213	3361.	0.0588
1476.	0.322	3362.	0.0592
1477.	0.316	3363.	0.0619
1478.	0.3182	3364.	0.0555
1479.	0.3178	3365.	0.0573
1480.	0.3197	3366.	0.0617

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1481.	0.3173	3367.	0.0593
1482.	0.3184	3368.	0.0569
1483.	0.3177	3369.	0.0552
1484.	0.3151	3370.	0.0566
1485.	0.3161	3371.	0.0612
1486.	0.3123	3372.	0.0591
1487.	0.3181	3373.	0.0559
1488.	0.3134	3374.	0.0599
1489.	0.3144	3375.	0.0614
1490.	0.3175	3376.	0.0578
1491.	0.3135	3377.	0.0582
1492.	0.316	3378.	0.0598
1493.	0.318	3379.	0.0583
1494.	0.3134	3380.	0.0605
1495.	0.3167	3381.	0.0605
1496.	0.3122	3382.	0.058
1497.	0.315	3383.	0.058
1498.	0.3127	3384.	0.0616
1499.	0.3113	3385.	0.0578
1500.	0.3154	3386.	0.0598
1501.	0.3096	3387.	0.058
1502.	0.3136	3388.	0.0571
1503.	0.3131	3389.	0.0606
1504.	0.3111	3390.	0.0605
1505.	0.312	3391.	0.0592
1506.	0.3091	3392.	0.0597
1507.	0.311	3393.	0.0608
1508.	0.3093	3394.	0.0574
1509.	0.3094	3395.	0.0614
1510.	0.3091	3396.	0.0601
1511.	0.3101	3397.	0.0568
1512.	0.3078	3398.	0.0567
1513.	0.3081	3399.	0.0578
1514.	0.3068	3400.	0.0588
1515.	0.3071	3401.	0.0567
1516.	0.3048	3402.	0.0575
1517.	0.3074	3403.	0.0576
1518.	0.3071	3404.	0.0582
1519.	0.3067	3405.	0.0567
1520.	0.3068	3406.	0.0571
1521.	0.307	3407.	0.0567
1522.	0.3069	3408.	0.0612
1523.	0.3079	3409.	0.0597
1524.	0.3046	3410.	0.057
1525.	0.307	3411.	0.0597
1526.	0.3044	3412.	0.0598
1527.	0.3075	3413.	0.0602
1528.	0.3023	3414.	0.0589
1529.	0.3058	3415.	0.0571
1530.	0.3023	3416.	0.0597
1531.	0.3036	3417.	0.0578
1532.	0.306	3418.	0.0592
1533.	0.3021	3419.	0.0614
1534.	0.3014	3420.	0.0543
1535.	0.3038	3421.	0.0552
1536.	0.303	3422.	0.0593
1537.	0.3015	3423.	0.0569
1538.	0.306	3424.	0.0552
1539.	0.3027	3425.	0.0565
1540.	0.3031	3426.	0.0583
1541.	0.3013	3427.	0.0547
1542.	0.3014	3428.	0.0574
1543.	0.2968	3429.	0.0586
1544.	0.2999	3430.	0.0552
1545.	0.3003	3431.	0.0571
1546.	0.3005	3432.	0.0535

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1547.	0.2997	3433.	0.0526
1548.	0.2987	3434.	0.0523
1549.	0.2998	3435.	0.0563
1550.	0.298	3436.	0.0529
1551.	0.2969	3437.	0.0559
1552.	0.2988	3438.	0.0541
1553.	0.2946	3439.	0.0535
1554.	0.2972	3440.	0.0565
1555.	0.2933	3441.	0.0586
1556.	0.2958	3442.	0.0516
1557.	0.2948	3443.	0.0542
1558.	0.2944	3444.	0.0533
1559.	0.293	3445.	0.056
1560.	0.2962	3446.	0.0517
1561.	0.2938	3447.	0.0532
1562.	0.2936	3448.	0.0555
1563.	0.2931	3449.	0.0569
1564.	0.2981	3450.	0.0564
1565.	0.3012	3451.	0.053
1566.	0.3017	3452.	0.0547
1567.	0.304	3453.	0.0516
1568.	0.3039	3454.	0.0526
1569.	0.3011	3455.	0.0546
1570.	0.301	3456.	0.0521
1571.	0.3036	3457.	0.0546
1572.	0.3012	3458.	0.0505
1573.	0.3035	3459.	0.0541
1574.	0.302	3460.	0.053
1575.	0.3011	3461.	0.0543
1576.	0.3003	3462.	0.0514
1577.	0.2989	3463.	0.0509
1578.	0.3005	3464.	0.0552
1579.	0.2991	3465.	0.0505
1580.	0.3003	3466.	0.0533
1581.	0.3028	3467.	0.0514
1582.	0.3022	3468.	0.0537
1583.	0.3034	3469.	0.051
1584.	0.301	3470.	0.0497
1585.	0.3036	3471.	0.053
1586.	0.3024	3472.	0.0536
1587.	0.2987	3473.	0.0533
1588.	0.2974	3474.	0.054
1589.	0.2979	3475.	0.0525
1590.	0.2982	3476.	0.0531
1591.	0.2981	3477.	0.0519
1592.	0.2977	3478.	0.0513
1593.	0.2968	3479.	0.0542
1594.	0.2943	3480.	0.054
1595.	0.2951	3481.	0.0516
1596.	0.2943	3482.	0.0527
1597.	0.2934	3483.	0.0537
1598.	0.2936	3484.	0.0556
1599.	0.2924	3485.	0.0528
1600.	0.2948	3486.	0.0521
1601.	0.2946	3487.	0.0508
1602.	0.29	3488.	0.0492
1603.	0.2974	3489.	0.0519
1604.	0.2936	3490.	0.0504
1605.	0.2963	3491.	0.0519
1606.	0.2926	3492.	0.0518
1607.	0.291	3493.	0.0521
1608.	0.295	3494.	0.0511
1609.	0.2914	3495.	0.0514
1610.	0.2912	3496.	0.0503
1611.	0.2931	3497.	0.0477
1612.	0.2947	3498.	0.0507

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1613.	0.2928	3499.	0.0495
1614.	0.2889	3500.	0.0526
1615.	0.2903	3501.	0.0509
1616.	0.2928	3502.	0.0492
1617.	0.2917	3503.	0.0521
1618.	0.2924	3504.	0.0527
1619.	0.29	3505.	0.0528
1620.	0.2854	3506.	0.0521
1621.	0.2869	3507.	0.0521
1622.	0.2859	3508.	0.0551
1623.	0.2856	3509.	0.0521
1624.	0.2869	3510.	0.0505
1625.	0.2881	3511.	0.0485
1626.	0.286	3512.	0.0506
1627.	0.2842	3513.	0.0457
1628.	0.2853	3514.	0.0494
1629.	0.2866	3515.	0.0513
1630.	0.2887	3516.	0.0497
1631.	0.2869	3517.	0.0502
1632.	0.2873	3518.	0.0509
1633.	0.2846	3519.	0.0499
1634.	0.2837	3520.	0.0524
1635.	0.2851	3521.	0.0531
1636.	0.2862	3522.	0.0492
1637.	0.2853	3523.	0.0528
1638.	0.2828	3524.	0.0519
1639.	0.2835	3525.	0.0488
1640.	0.2816	3526.	0.0492
1641.	0.2811	3527.	0.0501
1642.	0.2826	3528.	0.0486
1643.	0.2831	3529.	0.0487
1644.	0.2846	3530.	0.0485
1645.	0.283	3531.	0.0515
1646.	0.2822	3532.	0.0494
1647.	0.2822	3533.	0.0526
1648.	0.282	3534.	0.0492
1649.	0.2787	3535.	0.0485
1650.	0.2821	3536.	0.0504
1651.	0.2837	3537.	0.0511
1652.	0.2788	3538.	0.0482
1653.	0.2805	3539.	0.05
1654.	0.2815	3540.	0.0462
1655.	0.28	3541.	0.0521
1656.	0.2799	3542.	0.0477
1657.	0.2779	3543.	0.05
1658.	0.279	3544.	0.0469
1659.	0.2793	3545.	0.0438
1660.	0.2774	3546.	0.0495
1661.	0.2804	3547.	0.0507
1662.	0.2776	3548.	0.0497
1663.	0.2781	3549.	0.0484
1664.	0.2774	3550.	0.0491
1665.	0.2754	3551.	0.0471
1666.	0.2788	3552.	0.0489
1667.	0.2739	3553.	0.0466
1668.	0.2771	3554.	0.049
1669.	0.2767	3555.	0.051
1670.	0.2738	3556.	0.0473
1671.	0.2764	3557.	0.0485
1672.	0.2762	3558.	0.0448
1673.	0.2748	3559.	0.051
1674.	0.2742	3560.	0.0455
1675.	0.2745	3561.	0.0464
1676.	0.2707	3562.	0.048
1677.	0.2744	3563.	0.0451
1678.	0.2741	3564.	0.0476

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1679.	0.2731	3565.	0.0509
1680.	0.2745	3566.	0.0519
1681.	0.2728	3567.	0.0492
1682.	0.2707	3568.	0.0471
1683.	0.2706	3569.	0.047
1684.	0.2732	3570.	0.0466
1685.	0.273	3571.	0.0464
1686.	0.2738	3572.	0.0461
1687.	0.269	3573.	0.0492
1688.	0.273	3574.	0.0461
1689.	0.2698	3575.	0.049
1690.	0.2699	3576.	0.0479
1691.	0.2677	3577.	0.0474
1692.	0.2677	3578.	0.049
1693.	0.2683	3579.	0.0465
1694.	0.269	3580.	0.0466
1695.	0.2709	3581.	0.044
1696.	0.27	3582.	0.0489
1697.	0.2668	3583.	0.0483
1698.	0.2669	3584.	0.0469
1699.	0.2687	3585.	0.0496
1700.	0.2682	3586.	0.0469
1701.	0.2654	3587.	0.0466
1702.	0.2667	3588.	0.0442
1703.	0.2699	3589.	0.0478
1704.	0.2653	3590.	0.0475
1705.	0.2679	3591.	0.0473
1706.	0.2642	3592.	0.0447
1707.	0.266	3593.	0.0462
1708.	0.2623	3594.	0.0479
1709.	0.2661	3595.	0.0466
1710.	0.2661	3596.	0.0451
1711.	0.2628	3597.	0.0437
1712.	0.2652	3598.	0.0458
1713.	0.2615	3599.	0.0466
1714.	0.266	3600.	0.0455
1715.	0.262	3601.	0.0461
1716.	0.2632	3602.	0.047
1717.	0.2621	3603.	0.0438
1718.	0.2597	3604.	0.0453
1719.	0.2632	3605.	0.0453
1720.	0.2589	3606.	0.048
1721.	0.2598	3607.	0.0414
1722.	0.2598	3608.	0.0447
1723.	0.2566	3609.	0.0418
1724.	0.2595	3610.	0.046
1725.	0.2618	3611.	0.0419
1726.	0.2602	3612.	0.0428
1727.	0.2567	3613.	0.0447
1728.	0.2616	3614.	0.0454
1729.	0.2588	3615.	0.0438
1730.	0.2589	3616.	0.0439
1731.	0.26	3617.	0.0473
1732.	0.2594	3618.	0.0405
1733.	0.2554	3619.	0.0412
1734.	0.2596	3620.	0.0417
1735.	0.2561	3621.	0.0397
1736.	0.257	3622.	0.0435
1737.	0.2578	3623.	0.0426
1738.	0.2523	3624.	0.0439
1739.	0.2551	3625.	0.0411
1740.	0.2574	3626.	0.0423
1741.	0.2525	3627.	0.0429
1742.	0.2538	3628.	0.0418
1743.	0.2558	3629.	0.0427
1744.	0.2567	3630.	0.0426

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1745.	0.2554	3631.	0.0416
1746.	0.2572	3632.	0.0428
1747.	0.2546	3633.	0.0402
1748.	0.2543	3634.	0.0399
1749.	0.2532	3635.	0.0421
1750.	0.2561	3636.	0.0438
1751.	0.2534	3637.	0.0416
1752.	0.2528	3638.	0.0418
1753.	0.2541	3639.	0.0418
1754.	0.2584	3640.	0.0408
1755.	0.256	3641.	0.0424
1756.	0.2543	3642.	0.0393
1757.	0.2544	3643.	0.0416
1758.	0.2558	3644.	0.0426
1759.	0.2508	3645.	0.0414
1760.	0.2522	3646.	0.042
1761.	0.251	3647.	0.0411
1762.	0.2477	3648.	0.0427
1763.	0.2519	3649.	0.0409
1764.	0.2512	3650.	0.0456
1765.	0.2497	3651.	0.0407
1766.	0.2515	3652.	0.0385
1767.	0.2485	3653.	0.0439
1768.	0.2504	3654.	0.0436
1769.	0.2481	3655.	0.0414
1770.	0.2496	3656.	0.0442
1771.	0.2504	3657.	0.0398
1772.	0.2493	3658.	0.0406
1773.	0.252	3659.	0.044
1774.	0.249	3660.	0.0443
1775.	0.2509	3661.	0.0426
1776.	0.2495	3662.	0.0432
1777.	0.2487	3663.	0.0421
1778.	0.2447	3664.	0.0416
1779.	0.2491	3665.	0.0437
1780.	0.2475	3666.	0.0411
1781.	0.2492	3667.	0.0432
1782.	0.2456	3668.	0.0421
1783.	0.2496	3669.	0.0409
1784.	0.2472	3670.	0.0393
1785.	0.2467	3671.	0.0409
1786.	0.2468	3672.	0.0385
1787.	0.2479	3673.	0.044
1788.	0.2487	3674.	0.043
1789.	0.2472	3675.	0.041
1790.	0.2449	3676.	0.0432
1791.	0.2475	3677.	0.0417
1792.	0.2462	3678.	0.0402
1793.	0.2462	3679.	0.0433
1794.	0.2456	3680.	0.0429
1795.	0.2472	3681.	0.039
1796.	0.246	3682.	0.0378
1797.	0.2438	3683.	0.0415
1798.	0.2399	3684.	0.0412
1799.	0.2427	3685.	0.0408
1800.	0.2424	3686.	0.0413
1801.	0.2423	3687.	0.0437
1802.	0.2428	3688.	0.0371
1803.	0.2437	3689.	0.0379
1804.	0.2427	3690.	0.0392
1805.	0.2439	3691.	0.0424
1806.	0.2408	3692.	0.0404
1807.	0.2384	3693.	0.0456
1808.	0.2393	3694.	0.0463
1809.	0.2374	3695.	0.0451
1810.	0.2359	3696.	0.0449

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1811.	0.2377	3697.	0.0312
1812.	0.2391	3698.	0.032
1813.	0.2379	3699.	0.0302
1814.	0.2389	3700.	0.0286
1815.	0.2396	3701.	0.0283
1816.	0.2387	3702.	0.0306
1817.	0.2351	3703.	0.0325
1818.	0.2417	3704.	0.0306
1819.	0.2375	3705.	0.0296
1820.	0.2395	3706.	0.0289
1821.	0.2346	3707.	0.0308
1822.	0.2389	3708.	0.0322
1823.	0.2391	3709.	0.0302
1824.	0.2365	3710.	0.0306
1825.	0.239	3711.	0.0285
1826.	0.2377	3712.	0.0297
1827.	0.2387	3713.	0.0305
1828.	0.2384	3714.	0.0306
1829.	0.2348	3715.	0.0272
1830.	0.2334	3716.	0.0268
1831.	0.2321	3717.	0.028
1832.	0.2372	3718.	0.032
1833.	0.2336	3719.	0.0319
1834.	0.2384	3720.	0.0282
1835.	0.2359	3721.	0.0304
1836.	0.2372	3722.	0.029
1837.	0.2381	3723.	0.0306
1838.	0.2327	3724.	0.0279
1839.	0.2329	3725.	0.0321
1840.	0.2336	3726.	0.0319
1841.	0.233	3727.	0.0313
1842.	0.2329	3728.	0.0321
1843.	0.232	3729.	0.0269
1844.	0.2279	3730.	0.031
1845.	0.2329	3731.	0.0316
1846.	0.2301	3732.	0.0311
1847.	0.2319	3733.	0.0304
1848.	0.2348	3734.	0.0284
1849.	0.2319	3735.	0.0298
1850.	0.2296	3736.	0.0301
1851.	0.2286	3737.	0.0308
1852.	0.2293	3738.	0.0293
1853.	0.2317	3739.	0.0287
1854.	0.2274	3740.	0.0274
1855.	0.2313	3741.	0.0283
1856.	0.2293	3742.	0.03
1857.	0.2307	3743.	0.027
1858.	0.2278	3744.	0.029
1859.	0.2287	3745.	0.0292
1860.	0.2259	3746.	0.0282
1861.	0.2289	3747.	0.0282
1862.	0.2291	3748.	0.0308
1863.	0.2286	3749.	0.0292
1864.	0.2288	3750.	0.0297
1865.	0.2265	3751.	0.027
1866.	0.2277	3752.	0.03
1867.	0.2276	3753.	0.0268
1868.	0.2254	3754.	0.0277
1869.	0.2294	3755.	0.0282
1870.	0.2305	3756.	0.0294
1871.	0.2265	3757.	0.0296
1872.	0.2322	3758.	0.0287
1873.	0.227	3759.	0.0269
1874.	0.2289	3760.	0.0286
1875.	0.2315	3761.	0.0311
1876.	0.2281	3762.	0.032

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1877.	0.2297	3763.	0.0315
1878.	0.2276	3764.	0.0268
1879.	0.2256	3765.	0.0282
1880.	0.2269	3766.	0.0296
1881.	0.226	3767.	0.0265
1882.	0.2289	3768.	0.0259
1883.	0.226	3769.	0.0449
1884.	0.2252	3770.	0.
1885.	0.2248		

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.39

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001515	cm/sec
y0	1.334	ft

T = K*b = 0.05983 cm^2/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:15:34

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: MW-1

AQUIFER DATA

Saturated Thickness: 12.96 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: MW-1

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.7 ft
Static Water Column Height: 12.96 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 0.3 ft
Screen Length: 10. ft
Total Well Penetration Depth: 12.96 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.1771 ft
Gravel Pack Porosity: 0.3

No. of Observations: 4331

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.501	2166.	0.1287
1.	1.326	2167.	0.1282
2.	1.27	2168.	0.1273
3.	1.272	2169.	0.1271
4.	1.258	2170.	0.1236
5.	1.251	2171.	0.125
6.	1.245	2172.	0.1285
7.	1.243	2173.	0.127
8.	1.24	2174.	0.1254
9.	1.233	2175.	0.1244
10.	1.238	2176.	0.1274
11.	1.233	2177.	0.1242
12.	1.23	2178.	0.1268
13.	1.231	2179.	0.1277
14.	1.227	2180.	0.1241
15.	1.225	2181.	0.1266
16.	1.283	2182.	0.1261
17.	1.222	2183.	0.1243
18.	1.212	2184.	0.1251
19.	1.205	2185.	0.1264
20.	1.205	2186.	0.127
21.	1.203	2187.	0.1273
22.	1.218	2188.	0.1237
23.	1.212	2189.	0.1243
24.	1.213	2190.	0.1237
25.	1.211	2191.	0.1247
26.	1.214	2192.	0.1242
27.	1.208	2193.	0.1226
28.	1.207	2194.	0.1239

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
29.	1.204	2195.	0.1255
30.	1.204	2196.	0.1206
31.	1.204	2197.	0.1213
32.	1.198	2198.	0.1256
33.	1.2	2199.	0.1216
34.	1.198	2200.	0.1194
35.	1.195	2201.	0.1228
36.	1.196	2202.	0.1225
37.	1.197	2203.	0.1222
38.	1.194	2204.	0.1196
39.	1.19	2205.	0.1256
40.	1.188	2206.	0.1244
41.	1.19	2207.	0.1217
42.	1.191	2208.	0.1201
43.	1.188	2209.	0.1246
44.	1.183	2210.	0.1222
45.	1.182	2211.	0.1213
46.	1.181	2212.	0.1184
47.	1.183	2213.	0.1208
48.	1.18	2214.	0.121
49.	1.177	2215.	0.1207
50.	1.177	2216.	0.1175
51.	1.175	2217.	0.122
52.	1.174	2218.	0.1206
53.	1.174	2219.	0.1181
54.	1.173	2220.	0.1217
55.	1.17	2221.	0.1234
56.	1.168	2222.	0.1176
57.	1.168	2223.	0.1188
58.	1.165	2224.	0.1186
59.	1.167	2225.	0.1179
60.	1.164	2226.	0.1187
61.	1.162	2227.	0.1209
62.	1.16	2228.	0.123
63.	1.159	2229.	0.1196
64.	1.161	2230.	0.1219
65.	1.156	2231.	0.1186
66.	1.158	2232.	0.1177
67.	1.156	2233.	0.1201
68.	1.137	2234.	0.1189
69.	1.144	2235.	0.1189
70.	1.142	2236.	0.1203
71.	1.151	2237.	0.1184
72.	1.149	2238.	0.1182
73.	1.151	2239.	0.119
74.	1.146	2240.	0.1172
75.	1.146	2241.	0.1175
76.	1.142	2242.	0.121
77.	1.141	2243.	0.1198
78.	1.14	2244.	0.1153
79.	1.138	2245.	0.1203
80.	1.138	2246.	0.1156
81.	1.137	2247.	0.1184
82.	1.133	2248.	0.117
83.	1.132	2249.	0.1184
84.	1.134	2250.	0.1163
85.	1.13	2251.	0.1164
86.	1.129	2252.	0.1162
87.	1.13	2253.	0.1187
88.	1.123	2254.	0.1177
89.	1.125	2255.	0.1175
90.	1.125	2256.	0.1154
91.	1.124	2257.	0.1161
92.	1.121	2258.	0.1174
93.	1.12	2259.	0.1164
94.	1.119	2260.	0.1158

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
95.	1.118	2261.	0.1146
96.	1.114	2262.	0.1169
97.	1.11	2263.	0.1157
98.	1.099	2264.	0.1149
99.	1.101	2265.	0.1147
100.	1.112	2266.	0.1157
101.	1.109	2267.	0.1169
102.	1.113	2268.	0.1129
103.	1.111	2269.	0.1128
104.	1.109	2270.	0.1134
105.	1.106	2271.	0.1146
106.	1.104	2272.	0.1141
107.	1.105	2273.	0.1107
108.	1.104	2274.	0.1141
109.	1.102	2275.	0.1126
110.	1.1	2276.	0.1139
111.	1.103	2277.	0.113
112.	1.101	2278.	0.1129
113.	1.098	2279.	0.1103
114.	1.097	2280.	0.1103
115.	1.098	2281.	0.1141
116.	1.094	2282.	0.1141
117.	1.094	2283.	0.1132
118.	1.09	2284.	0.1084
119.	1.088	2285.	0.1096
120.	1.078	2286.	0.1132
121.	1.076	2287.	0.1108
122.	1.073	2288.	0.1087
123.	1.071	2289.	0.1098
124.	1.072	2290.	0.1124
125.	1.072	2291.	0.112
126.	1.071	2292.	0.1118
127.	1.072	2293.	0.1097
128.	1.083	2294.	0.1118
129.	1.08	2295.	0.112
130.	1.079	2296.	0.1082
131.	1.08	2297.	0.1134
132.	1.079	2298.	0.1102
133.	1.076	2299.	0.1095
134.	1.075	2300.	0.111
135.	1.074	2301.	0.1119
136.	1.071	2302.	0.1085
137.	1.07	2303.	0.1101
138.	1.07	2304.	0.1124
139.	1.065	2305.	0.1078
140.	1.062	2306.	0.1078
141.	1.055	2307.	0.1116
142.	1.054	2308.	0.11
143.	1.051	2309.	0.1091
144.	1.048	2310.	0.1086
145.	1.048	2311.	0.1088
146.	1.049	2312.	0.1085
147.	1.047	2313.	0.1089
148.	1.043	2314.	0.1072
149.	1.046	2315.	0.109
150.	1.042	2316.	0.1111
151.	1.045	2317.	0.1058
152.	1.043	2318.	0.1079
153.	1.037	2319.	0.1092
154.	1.04	2320.	0.1082
155.	1.039	2321.	0.1082
156.	1.035	2322.	0.1046
157.	1.034	2323.	0.1058
158.	1.034	2324.	0.1063
159.	1.03	2325.	0.1079
160.	1.034	2326.	0.1071

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
161.	1.036	2327.	0.1067
162.	1.035	2328.	0.1079
163.	1.033	2329.	0.1065
164.	1.032	2330.	0.1063
165.	1.03	2331.	0.1055
166.	1.031	2332.	0.1088
167.	1.03	2333.	0.1081
168.	1.03	2334.	0.1061
169.	1.026	2335.	0.107
170.	1.027	2336.	0.108
171.	1.026	2337.	0.1087
172.	1.023	2338.	0.1044
173.	1.023	2339.	0.1048
174.	1.021	2340.	0.1068
175.	1.025	2341.	0.1064
176.	1.018	2342.	0.1071
177.	1.018	2343.	0.1086
178.	1.013	2344.	0.1071
179.	1.013	2345.	0.102
180.	1.01	2346.	0.1055
181.	1.012	2347.	0.1078
182.	1.008	2348.	0.1044
183.	1.009	2349.	0.1058
184.	1.004	2350.	0.1043
185.	1.005	2351.	0.1033
186.	1.001	2352.	0.1035
187.	1.003	2353.	0.1043
188.	1.004	2354.	0.1056
189.	1.002	2355.	0.1062
190.	1.002	2356.	0.1029
191.	0.9993	2357.	0.1032
192.	0.9957	2358.	0.1021
193.	0.9986	2359.	0.101
194.	0.9958	2360.	0.1039
195.	0.9935	2361.	0.1043
196.	0.9962	2362.	0.1045
197.	0.9947	2363.	0.1036
198.	0.9919	2364.	0.1058
199.	0.9914	2365.	0.1043
200.	0.9906	2366.	0.1032
201.	0.9844	2367.	0.1022
202.	0.9895	2368.	0.1032
203.	0.9892	2369.	0.1023
204.	0.9864	2370.	0.1
205.	0.9877	2371.	0.1008
206.	0.9849	2372.	0.1016
207.	0.9841	2373.	0.1022
208.	0.9835	2374.	0.1012
209.	0.9811	2375.	0.102
210.	0.9777	2376.	0.0984
211.	0.9788	2377.	0.1053
212.	0.9766	2378.	0.102
213.	0.9773	2379.	0.1015
214.	0.9734	2380.	0.1
215.	0.973	2381.	0.103
216.	0.9738	2382.	0.1003
217.	0.9721	2383.	0.0982
218.	0.9682	2384.	0.1017
219.	0.9715	2385.	0.1008
220.	0.9676	2386.	0.1025
221.	0.9694	2387.	0.1003
222.	0.9671	2388.	0.1006
223.	0.9657	2389.	0.101
224.	0.9628	2390.	0.101
225.	0.9635	2391.	0.1003
226.	0.9644	2392.	0.1018

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
227.	0.9645	2393.	0.0995
228.	0.9601	2394.	0.1003
229.	0.9593	2395.	0.0979
230.	0.9597	2396.	0.1011
231.	0.9575	2397.	0.1008
232.	0.959	2398.	0.1003
233.	0.9588	2399.	0.1025
234.	0.9564	2400.	0.0972
235.	0.9523	2401.	0.0979
236.	0.9531	2402.	0.0989
237.	0.9541	2403.	0.0992
238.	0.9474	2404.	0.0981
239.	0.9522	2405.	0.0988
240.	0.9503	2406.	0.0962
241.	0.9457	2407.	0.0974
242.	0.9454	2408.	0.0966
243.	0.9481	2409.	0.0999
244.	0.9466	2410.	0.0986
245.	0.9467	2411.	0.0984
246.	0.9431	2412.	0.1
247.	0.9416	2413.	0.0979
248.	0.9416	2414.	0.0965
249.	0.9438	2415.	0.0969
250.	0.9399	2416.	0.1009
251.	0.9446	2417.	0.0951
252.	0.9404	2418.	0.0981
253.	0.9379	2419.	0.0977
254.	0.9389	2420.	0.0984
255.	0.9418	2421.	0.0948
256.	0.9343	2422.	0.0948
257.	0.9341	2423.	0.0994
258.	0.9353	2424.	0.0974
259.	0.9309	2425.	0.0955
260.	0.9312	2426.	0.0977
261.	0.932	2427.	0.0944
262.	0.929	2428.	0.0965
263.	0.9279	2429.	0.0951
264.	0.9298	2430.	0.0934
265.	0.9286	2431.	0.0964
266.	0.9264	2432.	0.0946
267.	0.9262	2433.	0.0962
268.	0.9257	2434.	0.0948
269.	0.9226	2435.	0.0969
270.	0.9217	2436.	0.0966
271.	0.9224	2437.	0.0932
272.	0.9234	2438.	0.0931
273.	0.9197	2439.	0.0951
274.	0.9164	2440.	0.098
275.	0.9166	2441.	0.0957
276.	0.9182	2442.	0.0964
277.	0.9174	2443.	0.0996
278.	0.9157	2444.	0.0956
279.	0.913	2445.	0.0953
280.	0.9134	2446.	0.0957
281.	0.9173	2447.	0.0977
282.	0.9167	2448.	0.0805
283.	0.9149	2449.	0.08
284.	0.914	2450.	0.0829
285.	0.9126	2451.	0.0806
286.	0.9091	2452.	0.0814
287.	0.9109	2453.	0.0822
288.	0.91	2454.	0.0824
289.	0.9062	2455.	0.0812
290.	0.9064	2456.	0.0824
291.	0.9051	2457.	0.0803
292.	0.9042	2458.	0.0832

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
293.	0.906	2459.	0.0807
294.	0.9047	2460.	0.0812
295.	0.8999	2461.	0.0814
296.	0.9015	2462.	0.0828
297.	0.9021	2463.	0.0786
298.	0.9011	2464.	0.0806
299.	0.9004	2465.	0.0817
300.	0.8938	2466.	0.08
301.	0.8978	2467.	0.0822
302.	0.8966	2468.	0.0766
303.	0.8909	2469.	0.0797
304.	0.8892	2470.	0.0793
305.	0.8911	2471.	0.0789
306.	0.8895	2472.	0.0823
307.	0.8884	2473.	0.078
308.	0.8865	2474.	0.0819
309.	0.8837	2475.	0.0813
310.	0.8849	2476.	0.0815
311.	0.8873	2477.	0.0801
312.	0.8906	2478.	0.0834
313.	0.8887	2479.	0.0771
314.	0.8909	2480.	0.0806
315.	0.8879	2481.	0.0817
316.	0.8851	2482.	0.0821
317.	0.887	2483.	0.0774
318.	0.8854	2484.	0.0793
319.	0.8826	2485.	0.0779
320.	0.8831	2486.	0.0777
321.	0.8815	2487.	0.0772
322.	0.8818	2488.	0.079
323.	0.8813	2489.	0.0737
324.	0.8805	2490.	0.0784
325.	0.8763	2491.	0.0775
326.	0.8789	2492.	0.0774
327.	0.878	2493.	0.0781
328.	0.8773	2494.	0.0735
329.	0.8773	2495.	0.0753
330.	0.8745	2496.	0.0803
331.	0.8734	2497.	0.0743
332.	0.8751	2498.	0.0774
333.	0.8712	2499.	0.0788
334.	0.8736	2500.	0.0779
335.	0.8696	2501.	0.0768
336.	0.8687	2502.	0.0743
337.	0.8675	2503.	0.0776
338.	0.8629	2504.	0.0769
339.	0.858	2505.	0.0762
340.	0.8574	2506.	0.0745
341.	0.8553	2507.	0.0749
342.	0.859	2508.	0.0749
343.	0.8682	2509.	0.076
344.	0.8642	2510.	0.0764
345.	0.8618	2511.	0.0753
346.	0.8615	2512.	0.0763
347.	0.8637	2513.	0.0745
348.	0.858	2514.	0.0761
349.	0.8644	2515.	0.0735
350.	0.8558	2516.	0.074
351.	0.8599	2517.	0.0745
352.	0.8587	2518.	0.0742
353.	0.8575	2519.	0.0731
354.	0.8574	2520.	0.0733
355.	0.8577	2521.	0.0763
356.	0.8554	2522.	0.0742
357.	0.8564	2523.	0.0752
358.	0.8569	2524.	0.0769

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
359.	0.8529	2525.	0.075
360.	0.8546	2526.	0.0741
361.	0.8536	2527.	0.0777
362.	0.8518	2528.	0.0724
363.	0.8498	2529.	0.0723
364.	0.8484	2530.	0.0719
365.	0.8497	2531.	0.0714
366.	0.8484	2532.	0.0779
367.	0.8485	2533.	0.0733
368.	0.8445	2534.	0.0747
369.	0.8452	2535.	0.0724
370.	0.8414	2536.	0.074
371.	0.8414	2537.	0.0753
372.	0.8402	2538.	0.0759
373.	0.8415	2539.	0.0718
374.	0.8426	2540.	0.0717
375.	0.8388	2541.	0.0765
376.	0.8401	2542.	0.0693
377.	0.8394	2543.	0.0722
378.	0.8337	2544.	0.0738
379.	0.8355	2545.	0.072
380.	0.8388	2546.	0.0694
381.	0.8377	2547.	0.0705
382.	0.8342	2548.	0.0676
383.	0.8312	2549.	0.0716
384.	0.833	2550.	0.0723
385.	0.8323	2551.	0.071
386.	0.8289	2552.	0.07
387.	0.8276	2553.	0.071
388.	0.83	2554.	0.0695
389.	0.8244	2555.	0.0696
390.	0.8244	2556.	0.0737
391.	0.827	2557.	0.0713
392.	0.8255	2558.	0.0713
393.	0.8256	2559.	0.07
394.	0.8234	2560.	0.0734
395.	0.8265	2561.	0.0699
396.	0.822	2562.	0.07
397.	0.8224	2563.	0.068
398.	0.8182	2564.	0.0719
399.	0.8202	2565.	0.0695
400.	0.8155	2566.	0.0721
401.	0.8154	2567.	0.071
402.	0.7956	2568.	0.07
403.	0.8046	2569.	0.0732
404.	0.7998	2570.	0.0717
405.	0.7994	2571.	0.0722
406.	0.8126	2572.	0.0709
407.	0.8118	2573.	0.0721
408.	0.8085	2574.	0.0673
409.	0.8076	2575.	0.0664
410.	0.8088	2576.	0.0692
411.	0.804	2577.	0.0694
412.	0.8071	2578.	0.0702
413.	0.8071	2579.	0.0697
414.	0.8052	2580.	0.07
415.	0.8039	2581.	0.0675
416.	0.8033	2582.	0.07
417.	0.7997	2583.	0.0705
418.	0.7989	2584.	0.0683
419.	0.798	2585.	0.0697
420.	0.7974	2586.	0.0714
421.	0.7971	2587.	0.0692
422.	0.7966	2588.	0.0678
423.	0.7954	2589.	0.0681
424.	0.7927	2590.	0.0684

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
425.	0.7927	2591.	0.0685
426.	0.7906	2592.	0.0685
427.	0.7924	2593.	0.0693
428.	0.7898	2594.	0.0664
429.	0.7927	2595.	0.0676
430.	0.7891	2596.	0.0674
431.	0.7892	2597.	0.067
432.	0.7849	2598.	0.0674
433.	0.7872	2599.	0.0662
434.	0.7844	2600.	0.0653
435.	0.7844	2601.	0.0685
436.	0.7835	2602.	0.0677
437.	0.7828	2603.	0.065
438.	0.7796	2604.	0.0674
439.	0.7827	2605.	0.067
440.	0.7789	2606.	0.066
441.	0.7825	2607.	0.066
442.	0.7796	2608.	0.0657
443.	0.7808	2609.	0.0663
444.	0.7801	2610.	0.0666
445.	0.7744	2611.	0.0647
446.	0.7739	2612.	0.0676
447.	0.7758	2613.	0.0666
448.	0.7757	2614.	0.0648
449.	0.7714	2615.	0.0664
450.	0.7704	2616.	0.0669
451.	0.7699	2617.	0.0646
452.	0.772	2618.	0.0657
453.	0.7708	2619.	0.0653
454.	0.7688	2620.	0.0674
455.	0.7707	2621.	0.0662
456.	0.7689	2622.	0.0662
457.	0.7622	2623.	0.0664
458.	0.7645	2624.	0.0662
459.	0.7629	2625.	0.0624
460.	0.7633	2626.	0.0619
461.	0.7625	2627.	0.0644
462.	0.7623	2628.	0.0645
463.	0.7605	2629.	0.0669
464.	0.7564	2630.	0.0633
465.	0.7562	2631.	0.0662
466.	0.7477	2632.	0.067
467.	0.7518	2633.	0.0647
468.	0.7477	2634.	0.0672
469.	0.7648	2635.	0.0631
470.	0.7624	2636.	0.0681
471.	0.7617	2637.	0.063
472.	0.7622	2638.	0.0647
473.	0.7583	2639.	0.064
474.	0.7591	2640.	0.0633
475.	0.7601	2641.	0.0645
476.	0.7574	2642.	0.0637
477.	0.7552	2643.	0.0674
478.	0.7533	2644.	0.063
479.	0.7548	2645.	0.0631
480.	0.7543	2646.	0.0628
481.	0.7543	2647.	0.0627
482.	0.7522	2648.	0.0632
483.	0.7506	2649.	0.061
484.	0.7502	2650.	0.0621
485.	0.7506	2651.	0.0619
486.	0.7517	2652.	0.0645
487.	0.7467	2653.	0.0607
488.	0.7493	2654.	0.0643
489.	0.7473	2655.	0.0623
490.	0.744	2656.	0.0629

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
491.	0.7453	2657.	0.0607
492.	0.7453	2658.	0.0617
493.	0.74	2659.	0.0636
494.	0.7414	2660.	0.0628
495.	0.739	2661.	0.0633
496.	0.7409	2662.	0.0621
497.	0.7405	2663.	0.063
498.	0.7443	2664.	0.0623
499.	0.7369	2665.	0.066
500.	0.7374	2666.	0.0607
501.	0.7383	2667.	0.0604
502.	0.7324	2668.	0.065
503.	0.7345	2669.	0.0598
504.	0.7333	2670.	0.0656
505.	0.7329	2671.	0.0619
506.	0.7311	2672.	0.06
507.	0.7341	2673.	0.0615
508.	0.7336	2674.	0.0625
509.	0.7314	2675.	0.0576
510.	0.7343	2676.	0.0606
511.	0.7303	2677.	0.0624
512.	0.7292	2678.	0.0621
513.	0.7311	2679.	0.0601
514.	0.7283	2680.	0.0621
515.	0.7282	2681.	0.0587
516.	0.725	2682.	0.0636
517.	0.7263	2683.	0.0607
518.	0.7234	2684.	0.0631
519.	0.7256	2685.	0.0594
520.	0.7228	2686.	0.0609
521.	0.7169	2687.	0.0621
522.	0.7208	2688.	0.0625
523.	0.7195	2689.	0.0614
524.	0.7178	2690.	0.0598
525.	0.718	2691.	0.0612
526.	0.7085	2692.	0.0608
527.	0.7054	2693.	0.0607
528.	0.701	2694.	0.0604
529.	0.7161	2695.	0.0616
530.	0.7159	2696.	0.0588
531.	0.7116	2697.	0.0614
532.	0.7145	2698.	0.0601
533.	0.7128	2699.	0.0621
534.	0.7135	2700.	0.0606
535.	0.7121	2701.	0.0589
536.	0.7116	2702.	0.0615
537.	0.7109	2703.	0.0639
538.	0.7085	2704.	0.0623
539.	0.7109	2705.	0.0583
540.	0.7067	2706.	0.0611
541.	0.7085	2707.	0.061
542.	0.7037	2708.	0.0571
543.	0.7049	2709.	0.0578
544.	0.7042	2710.	0.0603
545.	0.7058	2711.	0.0582
546.	0.704	2712.	0.0572
547.	0.7003	2713.	0.0577
548.	0.7015	2714.	0.0568
549.	0.6996	2715.	0.0561
550.	0.6994	2716.	0.0595
551.	0.7009	2717.	0.057
552.	0.7004	2718.	0.0588
553.	0.6957	2719.	0.0607
554.	0.6978	2720.	0.0591
555.	0.699	2721.	0.0613
556.	0.6956	2722.	0.0562

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
557.	0.6959	2723.	0.0583
558.	0.694	2724.	0.0564
559.	0.6932	2725.	0.0598
560.	0.693	2726.	0.0579
561.	0.6939	2727.	0.0577
562.	0.6925	2728.	0.0565
563.	0.6911	2729.	0.058
564.	0.6906	2730.	0.0566
565.	0.6886	2731.	0.0582
566.	0.6887	2732.	0.0591
567.	0.6872	2733.	0.0557
568.	0.6906	2734.	0.0576
569.	0.6845	2735.	0.0583
570.	0.6833	2736.	0.0559
571.	0.6851	2737.	0.0546
572.	0.6821	2738.	0.0606
573.	0.6848	2739.	0.0573
574.	0.6802	2740.	0.0561
575.	0.6822	2741.	0.0593
576.	0.6803	2742.	0.0578
577.	0.678	2743.	0.0571
578.	0.6836	2744.	0.0578
579.	0.6781	2745.	0.0593
580.	0.6813	2746.	0.0576
581.	0.6813	2747.	0.0554
582.	0.6755	2748.	0.0549
583.	0.6783	2749.	0.0583
584.	0.6767	2750.	0.0593
585.	0.6734	2751.	0.0549
586.	0.6727	2752.	0.055
587.	0.6483	2753.	0.0545
588.	0.6529	2754.	0.0518
589.	0.6565	2755.	0.0554
590.	0.6623	2756.	0.0574
591.	0.6714	2757.	0.0541
592.	0.6725	2758.	0.0566
593.	0.6702	2759.	0.0569
594.	0.6662	2760.	0.0571
595.	0.666	2761.	0.0554
596.	0.6686	2762.	0.0558
597.	0.666	2763.	0.0549
598.	0.6648	2764.	0.0549
599.	0.6679	2765.	0.0514
600.	0.6639	2766.	0.0566
601.	0.6659	2767.	0.0557
602.	0.6621	2768.	0.0536
603.	0.6614	2769.	0.0526
604.	0.6615	2770.	0.0535
605.	0.6593	2771.	0.0543
606.	0.6603	2772.	0.0539
607.	0.6593	2773.	0.0537
608.	0.6612	2774.	0.0559
609.	0.6631	2775.	0.0556
610.	0.658	2776.	0.0561
611.	0.6553	2777.	0.0557
612.	0.6553	2778.	0.0545
613.	0.6524	2779.	0.0549
614.	0.651	2780.	0.0573
615.	0.6522	2781.	0.0526
616.	0.6529	2782.	0.0526
617.	0.6541	2783.	0.0543
618.	0.6536	2784.	0.0545
619.	0.6531	2785.	0.0545
620.	0.6514	2786.	0.0547
621.	0.6509	2787.	0.0514
622.	0.6485	2788.	0.0523

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
623.	0.6442	2789.	0.0526
624.	0.6469	2790.	0.0563
625.	0.6482	2791.	0.0531
626.	0.6445	2792.	0.053
627.	0.6478	2793.	0.0526
628.	0.6461	2794.	0.0539
629.	0.645	2795.	0.0538
630.	0.6412	2796.	0.0526
631.	0.6442	2797.	0.0531
632.	0.6426	2798.	0.0528
633.	0.6402	2799.	0.0505
634.	0.6434	2800.	0.0547
635.	0.6421	2801.	0.0546
636.	0.6395	2802.	0.0546
637.	0.6393	2803.	0.0494
638.	0.6367	2804.	0.0514
639.	0.6371	2805.	0.0516
640.	0.6367	2806.	0.0536
641.	0.6383	2807.	0.049
642.	0.6384	2808.	0.0528
643.	0.6376	2809.	0.0523
644.	0.6308	2810.	0.053
645.	0.6203	2811.	0.0573
646.	0.618	2812.	0.0514
647.	0.6255	2813.	0.054
648.	0.6343	2814.	0.0523
649.	0.6323	2815.	0.0522
650.	0.6332	2816.	0.0514
651.	0.6298	2817.	0.0492
652.	0.6299	2818.	0.0499
653.	0.6309	2819.	0.0504
654.	0.6288	2820.	0.0479
655.	0.6271	2821.	0.0507
656.	0.6264	2822.	0.0487
657.	0.6284	2823.	0.0512
658.	0.6233	2824.	0.0528
659.	0.6249	2825.	0.0516
660.	0.6233	2826.	0.0461
661.	0.6244	2827.	0.049
662.	0.6231	2828.	0.0525
663.	0.6214	2829.	0.048
664.	0.6223	2830.	0.0498
665.	0.6253	2831.	0.0477
666.	0.6225	2832.	0.048
667.	0.6212	2833.	0.0495
668.	0.6188	2834.	0.051
669.	0.6225	2835.	0.051
670.	0.6178	2836.	0.0495
671.	0.6191	2837.	0.0479
672.	0.6168	2838.	0.0476
673.	0.6154	2839.	0.0495
674.	0.6178	2840.	0.0473
675.	0.6162	2841.	0.0473
676.	0.6158	2842.	0.0508
677.	0.6168	2843.	0.0475
678.	0.6145	2844.	0.0484
679.	0.6108	2845.	0.0501
680.	0.6123	2846.	0.0492
681.	0.6126	2847.	0.0472
682.	0.6118	2848.	0.049
683.	0.6082	2849.	0.0456
684.	0.6087	2850.	0.0468
685.	0.6105	2851.	0.0495
686.	0.6083	2852.	0.0503
687.	0.6067	2853.	0.0452
688.	0.6044	2854.	0.0475

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
689.	0.6056	2855.	0.0495
690.	0.608	2856.	0.047
691.	0.6063	2857.	0.0483
692.	0.6029	2858.	0.0487
693.	0.6006	2859.	0.0484
694.	0.6012	2860.	0.0497
695.	0.6026	2861.	0.0461
696.	0.5988	2862.	0.0499
697.	0.6008	2863.	0.0475
698.	0.6004	2864.	0.0453
699.	0.5997	2865.	0.0478
700.	0.5965	2866.	0.0457
701.	0.5958	2867.	0.0445
702.	0.5958	2868.	0.0461
703.	0.593	2869.	0.0439
704.	0.5954	2870.	0.0458
705.	0.5961	2871.	0.0463
706.	0.5922	2872.	0.0453
707.	0.5937	2873.	0.0484
708.	0.5929	2874.	0.0454
709.	0.5933	2875.	0.0459
710.	0.5918	2876.	0.0441
711.	0.5928	2877.	0.0428
712.	0.5935	2878.	0.0451
713.	0.5932	2879.	0.0468
714.	0.593	2880.	0.0469
715.	0.5893	2881.	0.0475
716.	0.5864	2882.	0.0469
717.	0.5875	2883.	0.0438
718.	0.5875	2884.	0.0446
719.	0.588	2885.	0.0423
720.	0.5814	2886.	0.044
721.	0.5849	2887.	0.0478
722.	0.583	2888.	0.0476
723.	0.5827	2889.	0.0449
724.	0.5841	2890.	0.0454
725.	0.5818	2891.	0.0465
726.	0.5839	2892.	0.0425
727.	0.5843	2893.	0.0442
728.	0.5835	2894.	0.0452
729.	0.5806	2895.	0.0456
730.	0.5818	2896.	0.0455
731.	0.5808	2897.	0.043
732.	0.582	2898.	0.0474
733.	0.5783	2899.	0.0457
734.	0.5814	2900.	0.0463
735.	0.5782	2901.	0.0449
736.	0.5773	2902.	0.0425
737.	0.5801	2903.	0.0459
738.	0.576	2904.	0.0426
739.	0.5758	2905.	0.0447
740.	0.576	2906.	0.0423
741.	0.5746	2907.	0.0413
742.	0.5764	2908.	0.0444
743.	0.5725	2909.	0.0436
744.	0.5708	2910.	0.0444
745.	0.5715	2911.	0.0429
746.	0.5711	2912.	0.043
747.	0.5701	2913.	0.044
748.	0.5693	2914.	0.0448
749.	0.5715	2915.	0.0433
750.	0.5693	2916.	0.0433
751.	0.5692	2917.	0.0417
752.	0.566	2918.	0.0428
753.	0.5669	2919.	0.0418
754.	0.5662	2920.	0.0428

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
755.	0.5678	2921.	0.0441
756.	0.5674	2922.	0.0423
757.	0.5621	2923.	0.042
758.	0.5641	2924.	0.0425
759.	0.5667	2925.	0.0416
760.	0.563	2926.	0.0413
761.	0.5626	2927.	0.0423
762.	0.5641	2928.	0.0436
763.	0.5611	2929.	0.0404
764.	0.5622	2930.	0.0441
765.	0.5612	2931.	0.043
766.	0.5641	2932.	0.0426
767.	0.5611	2933.	0.0423
768.	0.5522	2934.	0.0443
769.	0.5457	2935.	0.0421
770.	0.544	2936.	0.0431
771.	0.5591	2937.	0.0426
772.	0.5579	2938.	0.0404
773.	0.5522	2939.	0.0421
774.	0.5573	2940.	0.0418
775.	0.5555	2941.	0.0429
776.	0.5573	2942.	0.0414
777.	0.5524	2943.	0.0436
778.	0.5514	2944.	0.041
779.	0.5517	2945.	0.0407
780.	0.5536	2946.	0.0411
781.	0.55	2947.	0.0429
782.	0.5502	2948.	0.0404
783.	0.5469	2949.	0.0409
784.	0.5492	2950.	0.0416
785.	0.5487	2951.	0.0411
786.	0.5498	2952.	0.0397
787.	0.551	2953.	0.0458
788.	0.5477	2954.	0.0405
789.	0.5505	2955.	0.0397
790.	0.5436	2956.	0.0416
791.	0.5479	2957.	0.043
792.	0.5455	2958.	0.0406
793.	0.5455	2959.	0.0378
794.	0.5467	2960.	0.0428
795.	0.5448	2961.	0.0395
796.	0.5443	2962.	0.0407
797.	0.5443	2963.	0.0411
798.	0.5415	2964.	0.0398
799.	0.5424	2965.	0.0393
800.	0.5413	2966.	0.0418
801.	0.5412	2967.	0.0376
802.	0.5396	2968.	0.0382
803.	0.5368	2969.	0.0406
804.	0.5399	2970.	0.0409
805.	0.5407	2971.	0.0385
806.	0.535	2972.	0.0394
807.	0.5369	2973.	0.0409
808.	0.5352	2974.	0.039
809.	0.5345	2975.	0.042
810.	0.536	2976.	0.0381
811.	0.5359	2977.	0.039
812.	0.533	2978.	0.0396
813.	0.5339	2979.	0.0422
814.	0.5335	2980.	0.0394
815.	0.5302	2981.	0.0378
816.	0.5334	2982.	0.0385
817.	0.5309	2983.	0.0402
818.	0.5319	2984.	0.0389
819.	0.5316	2985.	0.0385
820.	0.5296	2986.	0.0391

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
821.	0.5304	2987.	0.0397
822.	0.5266	2988.	0.038
823.	0.527	2989.	0.04
824.	0.5315	2990.	0.0375
825.	0.5266	2991.	0.0358
826.	0.5252	2992.	0.036
827.	0.5268	2993.	0.0418
828.	0.5261	2994.	0.0348
829.	0.5235	2995.	0.0354
830.	0.5216	2996.	0.0371
831.	0.5242	2997.	0.0366
832.	0.5218	2998.	0.0392
833.	0.5256	2999.	0.0382
834.	0.5216	3000.	0.0387
835.	0.5231	3001.	0.0361
836.	0.5201	3002.	0.0392
837.	0.5187	3003.	0.0394
838.	0.5156	3004.	0.0382
839.	0.5209	3005.	0.039
840.	0.5162	3006.	0.0363
841.	0.5161	3007.	0.0368
842.	0.5169	3008.	0.0368
843.	0.5164	3009.	0.0363
844.	0.5154	3010.	0.037
845.	0.5159	3011.	0.035
846.	0.5179	3012.	0.0373
847.	0.5135	3013.	0.0358
848.	0.5137	3014.	0.0371
849.	0.5171	3015.	0.0347
850.	0.5119	3016.	0.0374
851.	0.5136	3017.	0.0351
852.	0.5126	3018.	0.0368
853.	0.5103	3019.	0.0393
854.	0.5103	3020.	0.0371
855.	0.511	3021.	0.0337
856.	0.5087	3022.	0.0382
857.	0.5087	3023.	0.0352
858.	0.5099	3024.	0.0362
859.	0.5076	3025.	0.0368
860.	0.5067	3026.	0.037
861.	0.5064	3027.	0.0358
862.	0.5023	3028.	0.0351
863.	0.503	3029.	0.0361
864.	0.5056	3030.	0.0387
865.	0.507	3031.	0.0349
866.	0.5063	3032.	0.0353
867.	0.5023	3033.	0.0344
868.	0.5036	3034.	0.0358
869.	0.5018	3035.	0.0271
870.	0.5015	3036.	0.0351
871.	0.5035	3037.	0.0365
872.	0.5011	3038.	0.0311
873.	0.503	3039.	0.0388
874.	0.5044	3040.	0.0346
875.	0.4988	3041.	0.0379
876.	0.4996	3042.	0.0349
877.	0.4987	3043.	0.0368
878.	0.5013	3044.	0.0385
879.	0.4995	3045.	0.0373
880.	0.5003	3046.	0.0353
881.	0.4978	3047.	0.0369
882.	0.498	3048.	0.0383
883.	0.4966	3049.	0.036
884.	0.4955	3050.	0.0315
885.	0.4944	3051.	0.0368
886.	0.4956	3052.	0.0337

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
887.	0.4944	3053.	0.0346
888.	0.4791	3054.	0.0338
889.	0.4786	3055.	0.0356
890.	0.4789	3056.	0.0342
891.	0.4961	3057.	0.031
892.	0.491	3058.	0.0347
893.	0.4928	3059.	0.0342
894.	0.4921	3060.	0.0346
895.	0.4939	3061.	0.0337
896.	0.4921	3062.	0.0359
897.	0.4906	3063.	0.0318
898.	0.4875	3064.	0.0306
899.	0.4901	3065.	0.0306
900.	0.4884	3066.	0.0339
901.	0.4868	3067.	0.031
902.	0.4881	3068.	0.0327
903.	0.4849	3069.	0.0344
904.	0.487	3070.	0.0312
905.	0.4854	3071.	0.0349
906.	0.4863	3072.	0.0332
907.	0.4894	3073.	0.032
908.	0.4836	3074.	0.0339
909.	0.4839	3075.	0.0321
910.	0.4852	3076.	0.0342
911.	0.4821	3077.	0.0337
912.	0.4793	3078.	0.0323
913.	0.4806	3079.	0.0329
914.	0.479	3080.	0.038
915.	0.4829	3081.	0.0323
916.	0.4816	3082.	0.0329
917.	0.4796	3083.	0.0342
918.	0.4784	3084.	0.0368
919.	0.48	3085.	0.0349
920.	0.4772	3086.	0.0344
921.	0.4786	3087.	0.0363
922.	0.4734	3088.	0.037
923.	0.475	3089.	0.0376
924.	0.4727	3090.	0.0323
925.	0.4757	3091.	0.0344
926.	0.4762	3092.	0.033
927.	0.4748	3093.	0.0366
928.	0.4751	3094.	0.0352
929.	0.4731	3095.	0.0346
930.	0.4739	3096.	0.0337
931.	0.4699	3097.	0.0359
932.	0.4716	3098.	0.0323
933.	0.4699	3099.	0.0342
934.	0.4717	3100.	0.0349
935.	0.4693	3101.	0.0341
936.	0.4696	3102.	0.0315
937.	0.4721	3103.	0.034
938.	0.4681	3104.	0.0344
939.	0.4677	3105.	0.033
940.	0.4677	3106.	0.0344
941.	0.4683	3107.	0.0315
942.	0.4666	3108.	0.0308
943.	0.4674	3109.	0.0337
944.	0.4647	3110.	0.0329
945.	0.4655	3111.	0.0326
946.	0.4634	3112.	0.0346
947.	0.4633	3113.	0.0315
948.	0.4622	3114.	0.0343
949.	0.4628	3115.	0.0291
950.	0.4624	3116.	0.0319
951.	0.4604	3117.	0.0325
952.	0.4621	3118.	0.0342

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
953.	0.4638	3119.	0.0339
954.	0.4617	3120.	0.0315
955.	0.464	3121.	0.0325
956.	0.4622	3122.	0.0319
957.	0.4587	3123.	0.0341
958.	0.4586	3124.	0.0301
959.	0.4587	3125.	0.0327
960.	0.4581	3126.	0.0325
961.	0.4567	3127.	0.0306
962.	0.456	3128.	0.0339
963.	0.4538	3129.	0.0284
964.	0.4559	3130.	0.0315
965.	0.4567	3131.	0.0308
966.	0.455	3132.	0.0326
967.	0.4528	3133.	0.033
968.	0.4522	3134.	0.0281
969.	0.4542	3135.	0.0365
970.	0.4495	3136.	0.0308
971.	0.4502	3137.	0.0298
972.	0.45	3138.	0.0326
973.	0.4505	3139.	0.0311
974.	0.4505	3140.	0.0313
975.	0.4505	3141.	0.0332
976.	0.4514	3142.	0.0311
977.	0.4469	3143.	0.0311
978.	0.4476	3144.	0.0344
979.	0.4476	3145.	0.0313
980.	0.45	3146.	0.0318
981.	0.4457	3147.	0.035
982.	0.4471	3148.	0.0315
983.	0.4464	3149.	0.0312
984.	0.4466	3150.	0.0339
985.	0.4452	3151.	0.0326
986.	0.4426	3152.	0.0301
987.	0.4413	3153.	0.0312
988.	0.4402	3154.	0.0335
989.	0.4423	3155.	0.0306
990.	0.4452	3156.	0.0279
991.	0.44	3157.	0.0327
992.	0.4431	3158.	0.0271
993.	0.4414	3159.	0.0304
994.	0.4414	3160.	0.0329
995.	0.4427	3161.	0.0325
996.	0.4396	3162.	0.0334
997.	0.4415	3163.	0.0325
998.	0.4368	3164.	0.0336
999.	0.4392	3165.	0.0293
1000.	0.4357	3166.	0.0301
1001.	0.4376	3167.	0.0311
1002.	0.4383	3168.	0.028
1003.	0.4354	3169.	0.0299
1004.	0.438	3170.	0.0287
1005.	0.435	3171.	0.0289
1006.	0.4355	3172.	0.0298
1007.	0.4354	3173.	0.0332
1008.	0.4349	3174.	0.0323
1009.	0.4319	3175.	0.0305
1010.	0.4331	3176.	0.0331
1011.	0.4317	3177.	0.0319
1012.	0.4344	3178.	0.028
1013.	0.4251	3179.	0.0323
1014.	0.4158	3180.	0.0319
1015.	0.4167	3181.	0.033
1016.	0.4127	3182.	0.0312
1017.	0.4201	3183.	0.0313
1018.	0.4292	3184.	0.0314

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1019.	0.4285	3185.	0.032
1020.	0.4297	3186.	0.0328
1021.	0.429	3187.	0.0329
1022.	0.4276	3188.	0.0303
1023.	0.4297	3189.	0.0287
1024.	0.4261	3190.	0.032
1025.	0.426	3191.	0.03
1026.	0.4251	3192.	0.0291
1027.	0.4254	3193.	0.032
1028.	0.4261	3194.	0.0301
1029.	0.4245	3195.	0.0281
1030.	0.4233	3196.	0.0334
1031.	0.4256	3197.	0.0318
1032.	0.4196	3198.	0.0309
1033.	0.4212	3199.	0.0298
1034.	0.423	3200.	0.0292
1035.	0.419	3201.	0.032
1036.	0.4204	3202.	0.0277
1037.	0.4204	3203.	0.0299
1038.	0.4207	3204.	0.0292
1039.	0.4202	3205.	0.0308
1040.	0.4191	3206.	0.0291
1041.	0.42	3207.	0.0291
1042.	0.4201	3208.	0.0294
1043.	0.4176	3209.	0.027
1044.	0.4183	3210.	0.0284
1045.	0.417	3211.	0.0326
1046.	0.416	3212.	0.0301
1047.	0.4177	3213.	0.0287
1048.	0.4152	3214.	0.0369
1049.	0.4185	3215.	0.0338
1050.	0.4153	3216.	0.0268
1051.	0.4127	3217.	0.0312
1052.	0.4146	3218.	0.0327
1053.	0.4154	3219.	0.033
1054.	0.4141	3220.	0.0304
1055.	0.4141	3221.	0.0315
1056.	0.4097	3222.	0.0337
1057.	0.4124	3223.	0.0335
1058.	0.4116	3224.	0.0323
1059.	0.4131	3225.	0.0335
1060.	0.4104	3226.	0.0293
1061.	0.4089	3227.	0.0296
1062.	0.4079	3228.	0.0294
1063.	0.4135	3229.	0.0346
1064.	0.4085	3230.	0.031
1065.	0.4092	3231.	0.0309
1066.	0.4097	3232.	0.0299
1067.	0.4048	3233.	0.0311
1068.	0.4067	3234.	0.0293
1069.	0.4056	3235.	0.0301
1070.	0.4065	3236.	0.0308
1071.	0.4065	3237.	0.0304
1072.	0.4039	3238.	0.0294
1073.	0.4058	3239.	0.0313
1074.	0.4046	3240.	0.0273
1075.	0.4053	3241.	0.0313
1076.	0.404	3242.	0.0282
1077.	0.407	3243.	0.0292
1078.	0.4039	3244.	0.0282
1079.	0.4037	3245.	0.0292
1080.	0.4032	3246.	0.0277
1081.	0.4022	3247.	0.0313
1082.	0.4053	3248.	0.0308
1083.	0.4035	3249.	0.0313
1084.	0.4004	3250.	0.0282

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1085.	0.4032	3251.	0.0298
1086.	0.4001	3252.	0.028
1087.	0.3996	3253.	0.0306
1088.	0.4015	3254.	0.0253
1089.	0.3977	3255.	0.0292
1090.	0.3992	3256.	0.0306
1091.	0.4015	3257.	0.0283
1092.	0.4001	3258.	0.0287
1093.	0.3963	3259.	0.0311
1094.	0.396	3260.	0.0301
1095.	0.3975	3261.	0.0287
1096.	0.3987	3262.	0.0306
1097.	0.3997	3263.	0.0269
1098.	0.3951	3264.	0.0255
1099.	0.3927	3265.	0.0277
1100.	0.3956	3266.	0.0306
1101.	0.3925	3267.	0.0289
1102.	0.3934	3268.	0.0324
1103.	0.3938	3269.	0.0264
1104.	0.3939	3270.	0.0259
1105.	0.3921	3271.	0.0276
1106.	0.3933	3272.	0.0294
1107.	0.3931	3273.	0.0301
1108.	0.3927	3274.	0.0277
1109.	0.3877	3275.	0.031
1110.	0.3896	3276.	0.032
1111.	0.3901	3277.	0.0285
1112.	0.3897	3278.	0.0267
1113.	0.3898	3279.	0.0287
1114.	0.3891	3280.	0.0284
1115.	0.3883	3281.	0.03
1116.	0.385	3282.	0.0297
1117.	0.3887	3283.	0.026
1118.	0.3899	3284.	0.0274
1119.	0.3877	3285.	0.03
1120.	0.3851	3286.	0.0245
1121.	0.3876	3287.	0.0287
1122.	0.386	3288.	0.0265
1123.	0.3844	3289.	0.0301
1124.	0.3875	3290.	0.03
1125.	0.3821	3291.	0.0297
1126.	0.3819	3292.	0.0315
1127.	0.3841	3293.	0.0273
1128.	0.3806	3294.	0.0282
1129.	0.384	3295.	0.0323
1130.	0.3677	3296.	0.0265
1131.	0.3669	3297.	0.027
1132.	0.3705	3298.	0.0265
1133.	0.3667	3299.	0.0296
1134.	0.3677	3300.	0.0293
1135.	0.3854	3301.	0.0272
1136.	0.3824	3302.	0.0243
1137.	0.3789	3303.	0.0231
1138.	0.3796	3304.	0.0289
1139.	0.3771	3305.	0.0278
1140.	0.3808	3306.	0.0263
1141.	0.3774	3307.	0.0296
1142.	0.3812	3308.	0.0276
1143.	0.3791	3309.	0.0274
1144.	0.3753	3310.	0.0281
1145.	0.3765	3311.	0.0267
1146.	0.3737	3312.	0.0282
1147.	0.376	3313.	0.0284
1148.	0.3738	3314.	0.0298
1149.	0.3738	3315.	0.0248
1150.	0.3762	3316.	0.0277

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1151.	0.3778	3317.	0.0292
1152.	0.3754	3318.	0.0274
1153.	0.3715	3319.	0.0257
1154.	0.3712	3320.	0.0301
1155.	0.3733	3321.	0.0251
1156.	0.3726	3322.	0.0271
1157.	0.3753	3323.	0.0279
1158.	0.368	3324.	0.0252
1159.	0.3726	3325.	0.0274
1160.	0.37	3326.	0.0238
1161.	0.3705	3327.	0.0278
1162.	0.3686	3328.	0.0251
1163.	0.3667	3329.	0.0256
1164.	0.3656	3330.	0.0246
1165.	0.3698	3331.	0.0291
1166.	0.3691	3332.	0.0289
1167.	0.3656	3333.	0.0254
1168.	0.3684	3334.	0.0294
1169.	0.3674	3335.	0.0257
1170.	0.3657	3336.	0.0272
1171.	0.3641	3337.	0.0259
1172.	0.3633	3338.	0.0244
1173.	0.3657	3339.	0.0282
1174.	0.3672	3340.	0.0261
1175.	0.3664	3341.	0.0298
1176.	0.3658	3342.	0.0284
1177.	0.3652	3343.	0.0246
1178.	0.3626	3344.	0.024
1179.	0.365	3345.	0.0275
1180.	0.3624	3346.	0.0299
1181.	0.36	3347.	0.0255
1182.	0.3631	3348.	0.0264
1183.	0.3585	3349.	0.0256
1184.	0.359	3350.	0.0249
1185.	0.3626	3351.	0.0255
1186.	0.3606	3352.	0.0248
1187.	0.3605	3353.	0.0239
1188.	0.3559	3354.	0.0292
1189.	0.3612	3355.	0.0284
1190.	0.3576	3356.	0.0263
1191.	0.3592	3357.	0.025
1192.	0.357	3358.	0.023
1193.	0.3569	3359.	0.0275
1194.	0.358	3360.	0.0256
1195.	0.3579	3361.	0.0254
1196.	0.3576	3362.	0.0254
1197.	0.3568	3363.	0.0268
1198.	0.3555	3364.	0.025
1199.	0.3567	3365.	0.0241
1200.	0.3554	3366.	0.0204
1201.	0.3564	3367.	0.028
1202.	0.3559	3368.	0.0231
1203.	0.3588	3369.	0.0218
1204.	0.3514	3370.	0.0241
1205.	0.357	3371.	0.026
1206.	0.3519	3372.	0.0256
1207.	0.3546	3373.	0.0249
1208.	0.3522	3374.	0.0243
1209.	0.3531	3375.	0.0241
1210.	0.3552	3376.	0.024
1211.	0.3519	3377.	0.0272
1212.	0.3545	3378.	0.0246
1213.	0.3519	3379.	0.0258
1214.	0.3494	3380.	0.0229
1215.	0.3523	3381.	0.0244
1216.	0.3456	3382.	0.0294

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1217.	0.3489	3383.	0.0242
1218.	0.3531	3384.	0.0221
1219.	0.3482	3385.	0.0262
1220.	0.3477	3386.	0.0241
1221.	0.3491	3387.	0.0243
1222.	0.3478	3388.	0.0244
1223.	0.3448	3389.	0.0226
1224.	0.3469	3390.	0.0229
1225.	0.3425	3391.	0.0254
1226.	0.3452	3392.	0.0231
1227.	0.3462	3393.	0.0237
1228.	0.3434	3394.	0.0203
1229.	0.3466	3395.	0.0206
1230.	0.3447	3396.	0.0237
1231.	0.3431	3397.	0.0223
1232.	0.344	3398.	0.0252
1233.	0.343	3399.	0.0235
1234.	0.3443	3400.	0.0223
1235.	0.3441	3401.	0.0249
1236.	0.3433	3402.	0.0242
1237.	0.3395	3403.	0.0251
1238.	0.3426	3404.	0.0241
1239.	0.3428	3405.	0.0269
1240.	0.3417	3406.	0.0243
1241.	0.3409	3407.	0.0219
1242.	0.3415	3408.	0.0233
1243.	0.3403	3409.	0.024
1244.	0.341	3410.	0.0255
1245.	0.3391	3411.	0.0219
1246.	0.3385	3412.	0.0244
1247.	0.3249	3413.	0.0232
1248.	0.324	3414.	0.0222
1249.	0.324	3415.	0.0235
1250.	0.3235	3416.	0.0227
1251.	0.3259	3417.	0.0191
1252.	0.3435	3418.	0.0224
1253.	0.3357	3419.	0.0254
1254.	0.3359	3420.	0.023
1255.	0.3345	3421.	0.0237
1256.	0.3351	3422.	0.0233
1257.	0.3349	3423.	0.0234
1258.	0.3328	3424.	0.0243
1259.	0.3345	3425.	0.0216
1260.	0.3351	3426.	0.0223
1261.	0.3342	3427.	0.0241
1262.	0.3333	3428.	0.0224
1263.	0.3329	3429.	0.0234
1264.	0.3319	3430.	0.0191
1265.	0.3347	3431.	0.0201
1266.	0.3323	3432.	0.0208
1267.	0.3317	3433.	0.0242
1268.	0.3311	3434.	0.0224
1269.	0.3335	3435.	0.0259
1270.	0.3298	3436.	0.0224
1271.	0.3276	3437.	0.0244
1272.	0.3297	3438.	0.0199
1273.	0.3302	3439.	0.0232
1274.	0.3287	3440.	0.0226
1275.	0.3314	3441.	0.0247
1276.	0.3255	3442.	0.0221
1277.	0.3254	3443.	0.0222
1278.	0.3298	3444.	0.0221
1279.	0.3299	3445.	0.0193
1280.	0.3273	3446.	0.0213
1281.	0.3286	3447.	0.0234
1282.	0.3257	3448.	0.0212

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1283.	0.3275	3449.	0.023
1284.	0.3286	3450.	0.0203
1285.	0.3259	3451.	0.0168
1286.	0.3254	3452.	0.019
1287.	0.3235	3453.	0.0226
1288.	0.3229	3454.	0.024
1289.	0.3254	3455.	0.02
1290.	0.3227	3456.	0.0222
1291.	0.3232	3457.	0.0233
1292.	0.3248	3458.	0.0232
1293.	0.322	3459.	0.0237
1294.	0.3219	3460.	0.0185
1295.	0.3231	3461.	0.0191
1296.	0.3247	3462.	0.0191
1297.	0.3189	3463.	0.0231
1298.	0.3213	3464.	0.0234
1299.	0.3213	3465.	0.0194
1300.	0.3183	3466.	0.0179
1301.	0.3206	3467.	0.0199
1302.	0.3173	3468.	0.0205
1303.	0.3204	3469.	0.0196
1304.	0.318	3470.	0.0243
1305.	0.3168	3471.	0.0215
1306.	0.3201	3472.	0.0236
1307.	0.3158	3473.	0.0218
1308.	0.3221	3474.	0.0212
1309.	0.3194	3475.	0.0225
1310.	0.3173	3476.	0.0215
1311.	0.3152	3477.	0.0212
1312.	0.3143	3478.	0.0204
1313.	0.3198	3479.	0.021
1314.	0.3138	3480.	0.0203
1315.	0.3138	3481.	0.0207
1316.	0.3158	3482.	0.0231
1317.	0.3139	3483.	0.0205
1318.	0.3139	3484.	0.0217
1319.	0.3168	3485.	0.0223
1320.	0.3143	3486.	0.0206
1321.	0.3148	3487.	0.0221
1322.	0.3128	3488.	0.0199
1323.	0.3144	3489.	0.022
1324.	0.3132	3490.	0.0203
1325.	0.3097	3491.	0.0194
1326.	0.3157	3492.	0.0226
1327.	0.3101	3493.	0.0209
1328.	0.3128	3494.	0.0223
1329.	0.3151	3495.	0.0189
1330.	0.311	3496.	0.0231
1331.	0.3108	3497.	0.0199
1332.	0.309	3498.	0.0195
1333.	0.3112	3499.	0.0226
1334.	0.3082	3500.	0.0197
1335.	0.3101	3501.	0.0184
1336.	0.3104	3502.	0.0197
1337.	0.3087	3503.	0.0187
1338.	0.3114	3504.	0.0213
1339.	0.3092	3505.	0.02
1340.	0.307	3506.	0.0212
1341.	0.3082	3507.	0.0179
1342.	0.3061	3508.	0.0224
1343.	0.3068	3509.	0.0201
1344.	0.308	3510.	0.0191
1345.	0.3065	3511.	0.0215
1346.	0.3082	3512.	0.0186
1347.	0.3076	3513.	0.0227
1348.	0.3036	3514.	0.0189

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1349.	0.3034	3515.	0.021
1350.	0.3053	3516.	0.0223
1351.	0.3041	3517.	0.0171
1352.	0.3058	3518.	0.0182
1353.	0.3046	3519.	0.0185
1354.	0.3059	3520.	0.0218
1355.	0.3024	3521.	0.0178
1356.	0.3039	3522.	0.0182
1357.	0.3031	3523.	0.0227
1358.	0.302	3524.	0.0185
1359.	0.3037	3525.	0.0168
1360.	0.3008	3526.	0.0161
1361.	0.3015	3527.	0.018
1362.	0.301	3528.	0.0179
1363.	0.3012	3529.	0.0165
1364.	0.3002	3530.	0.0175
1365.	0.2982	3531.	0.0173
1366.	0.3005	3532.	0.0206
1367.	0.2979	3533.	0.0177
1368.	0.3	3534.	0.0201
1369.	0.2985	3535.	0.017
1370.	0.3004	3536.	0.02
1371.	0.2976	3537.	0.0164
1372.	0.2981	3538.	0.017
1373.	0.2972	3539.	0.0188
1374.	0.2973	3540.	0.0175
1375.	0.299	3541.	0.02
1376.	0.2943	3542.	0.0189
1377.	0.2971	3543.	0.0172
1378.	0.2965	3544.	0.0173
1379.	0.2956	3545.	0.0155
1380.	0.2923	3546.	0.0178
1381.	0.2977	3547.	0.0184
1382.	0.2947	3548.	0.0173
1383.	0.2917	3549.	0.0181
1384.	0.2948	3550.	0.0192
1385.	0.2937	3551.	0.023
1386.	0.2921	3552.	0.019
1387.	0.2943	3553.	0.0204
1388.	0.2911	3554.	0.0207
1389.	0.2894	3555.	0.0188
1390.	0.2903	3556.	0.0166
1391.	0.2923	3557.	0.0176
1392.	0.2903	3558.	0.0163
1393.	0.2908	3559.	0.0151
1394.	0.2894	3560.	0.0189
1395.	0.289	3561.	0.0158
1396.	0.2886	3562.	0.0163
1397.	0.2898	3563.	0.019
1398.	0.2896	3564.	0.0203
1399.	0.2887	3565.	0.0189
1400.	0.2867	3566.	0.0197
1401.	0.2884	3567.	0.0179
1402.	0.2879	3568.	0.0165
1403.	0.2851	3569.	0.0176
1404.	0.2848	3570.	0.0172
1405.	0.2875	3571.	0.0174
1406.	0.287	3572.	0.0175
1407.	0.287	3573.	0.0166
1408.	0.2872	3574.	0.0158
1409.	0.2869	3575.	0.0206
1410.	0.2854	3576.	0.0174
1411.	0.2831	3577.	0.0176
1412.	0.2888	3578.	0.02
1413.	0.285	3579.	0.0196
1414.	0.2853	3580.	0.0166

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1415.	0.2819	3581.	0.0166
1416.	0.2858	3582.	0.0156
1417.	0.2824	3583.	0.0163
1418.	0.2843	3584.	0.0179
1419.	0.2824	3585.	0.0163
1420.	0.2853	3586.	0.0141
1421.	0.2839	3587.	0.0173
1422.	0.2807	3588.	0.0165
1423.	0.28	3589.	0.0203
1424.	0.2803	3590.	0.0177
1425.	0.278	3591.	0.0138
1426.	0.2812	3592.	0.017
1427.	0.2784	3593.	0.0167
1428.	0.2808	3594.	0.0141
1429.	0.2838	3595.	0.0196
1430.	0.2805	3596.	0.0183
1431.	0.278	3597.	0.016
1432.	0.2776	3598.	0.018
1433.	0.279	3599.	0.0125
1434.	0.278	3600.	0.0189
1435.	0.2767	3601.	0.0173
1436.	0.2751	3602.	0.0179
1437.	0.2769	3603.	0.0158
1438.	0.2774	3604.	0.0193
1439.	0.2774	3605.	0.0159
1440.	0.2779	3606.	0.0173
1441.	0.2763	3607.	0.0156
1442.	0.2767	3608.	0.0127
1443.	0.2697	3609.	0.018
1444.	0.2755	3610.	0.0159
1445.	0.2737	3611.	0.0174
1446.	0.2736	3612.	0.017
1447.	0.2714	3613.	0.0163
1448.	0.276	3614.	0.0156
1449.	0.2717	3615.	0.0178
1450.	0.273	3616.	0.0151
1451.	0.2717	3617.	0.0158
1452.	0.2741	3618.	0.0156
1453.	0.2738	3619.	0.0163
1454.	0.2717	3620.	0.0166
1455.	0.2719	3621.	0.017
1456.	0.2706	3622.	0.0183
1457.	0.2681	3623.	0.0127
1458.	0.2714	3624.	0.0143
1459.	0.2698	3625.	0.0153
1460.	0.2693	3626.	0.0149
1461.	0.2704	3627.	0.0156
1462.	0.2686	3628.	0.0146
1463.	0.2657	3629.	0.0157
1464.	0.2693	3630.	0.0152
1465.	0.2712	3631.	0.0181
1466.	0.2671	3632.	0.0163
1467.	0.2689	3633.	0.0139
1468.	0.2662	3634.	0.016
1469.	0.2715	3635.	0.0137
1470.	0.2649	3636.	0.016
1471.	0.267	3637.	0.018
1472.	0.2683	3638.	0.015
1473.	0.2681	3639.	0.0162
1474.	0.2687	3640.	0.017
1475.	0.2672	3641.	0.0109
1476.	0.2655	3642.	0.0146
1477.	0.2688	3643.	0.0152
1478.	0.265	3644.	0.0141
1479.	0.2671	3645.	0.0148
1480.	0.2631	3646.	0.0156

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1481.	0.266	3647.	0.0205
1482.	0.2647	3648.	0.0144
1483.	0.2624	3649.	0.0133
1484.	0.2662	3650.	0.016
1485.	0.266	3651.	0.0173
1486.	0.264	3652.	0.0158
1487.	0.2645	3653.	0.0164
1488.	0.2631	3654.	0.0151
1489.	0.2628	3655.	0.0194
1490.	0.2643	3656.	0.0153
1491.	0.2636	3657.	0.0137
1492.	0.2614	3658.	0.0144
1493.	0.26	3659.	0.0163
1494.	0.2616	3660.	0.0146
1495.	0.2594	3661.	0.0135
1496.	0.2587	3662.	0.0112
1497.	0.2614	3663.	0.0137
1498.	0.2611	3664.	0.0146
1499.	0.2558	3665.	0.0156
1500.	0.2578	3666.	0.0148
1501.	0.2581	3667.	0.0124
1502.	0.259	3668.	0.015
1503.	0.259	3669.	0.0151
1504.	0.2579	3670.	0.0148
1505.	0.26	3671.	0.0147
1506.	0.258	3672.	0.0157
1507.	0.2564	3673.	0.0174
1508.	0.2565	3674.	0.0119
1509.	0.2564	3675.	0.0132
1510.	0.2536	3676.	0.0134
1511.	0.2557	3677.	0.017
1512.	0.2589	3678.	0.0144
1513.	0.2545	3679.	0.014
1514.	0.2551	3680.	0.0101
1515.	0.2537	3681.	0.0174
1516.	0.2555	3682.	0.0151
1517.	0.2543	3683.	0.0145
1518.	0.2544	3684.	0.014
1519.	0.2518	3685.	0.0132
1520.	0.2521	3686.	0.0158
1521.	0.2544	3687.	0.0137
1522.	0.2528	3688.	0.0136
1523.	0.2523	3689.	0.0117
1524.	0.2518	3690.	0.0139
1525.	0.2497	3691.	0.0153
1526.	0.2498	3692.	0.016
1527.	0.2531	3693.	0.014
1528.	0.2507	3694.	0.0168
1529.	0.2511	3695.	0.0158
1530.	0.2492	3696.	0.0134
1531.	0.2462	3697.	0.0137
1532.	0.2525	3698.	0.0163
1533.	0.249	3699.	0.0134
1534.	0.2494	3700.	0.0159
1535.	0.2466	3701.	0.0134
1536.	0.2483	3702.	0.0121
1537.	0.2488	3703.	0.0128
1538.	0.2455	3704.	0.0149
1539.	0.2461	3705.	0.0164
1540.	0.2461	3706.	0.0137
1541.	0.2476	3707.	0.0165
1542.	0.2449	3708.	0.0123
1543.	0.245	3709.	0.0139
1544.	0.2476	3710.	0.0142
1545.	0.2452	3711.	0.0141
1546.	0.2454	3712.	0.0122

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1547.	0.2429	3713.	0.0124
1548.	0.2322	3714.	0.0162
1549.	0.231	3715.	0.0165
1550.	0.227	3716.	0.0118
1551.	0.229	3717.	0.0126
1552.	0.2335	3718.	0.0144
1553.	0.2459	3719.	0.0148
1554.	0.2449	3720.	0.0125
1555.	0.2469	3721.	0.0134
1556.	0.243	3722.	0.0119
1557.	0.2428	3723.	0.0116
1558.	0.2422	3724.	0.0129
1559.	0.2421	3725.	0.0124
1560.	0.2435	3726.	0.0121
1561.	0.243	3727.	0.0151
1562.	0.2409	3728.	0.0141
1563.	0.2428	3729.	0.0156
1564.	0.2421	3730.	0.0129
1565.	0.2421	3731.	0.0139
1566.	0.2372	3732.	0.0129
1567.	0.2399	3733.	0.0158
1568.	0.2407	3734.	0.011
1569.	0.2418	3735.	0.0132
1570.	0.2396	3736.	0.0144
1571.	0.2382	3737.	0.0134
1572.	0.2384	3738.	0.0138
1573.	0.2398	3739.	0.0112
1574.	0.2404	3740.	0.011
1575.	0.2396	3741.	0.0132
1576.	0.2381	3742.	0.0112
1577.	0.2386	3743.	0.0146
1578.	0.2371	3744.	0.0122
1579.	0.2363	3745.	0.0124
1580.	0.2364	3746.	0.0144
1581.	0.2377	3747.	0.0139
1582.	0.2395	3748.	0.012
1583.	0.2372	3749.	0.0124
1584.	0.2358	3750.	0.0137
1585.	0.2344	3751.	0.0157
1586.	0.2361	3752.	0.0102
1587.	0.2328	3753.	0.0132
1588.	0.2344	3754.	0.0096
1589.	0.2364	3755.	0.0135
1590.	0.2331	3756.	0.0154
1591.	0.2334	3757.	0.0108
1592.	0.2335	3758.	0.0125
1593.	0.2352	3759.	0.015
1594.	0.2362	3760.	0.0127
1595.	0.2346	3761.	0.014
1596.	0.2342	3762.	0.012
1597.	0.2352	3763.	0.0134
1598.	0.2318	3764.	0.0147
1599.	0.2351	3765.	0.0105
1600.	0.2335	3766.	0.0127
1601.	0.2313	3767.	0.0095
1602.	0.2332	3768.	0.0108
1603.	0.2286	3769.	0.0118
1604.	0.2342	3770.	0.0108
1605.	0.2306	3771.	0.0105
1606.	0.2328	3772.	0.012
1607.	0.231	3773.	0.0144
1608.	0.2315	3774.	0.0122
1609.	0.2285	3775.	0.0125
1610.	0.2289	3776.	0.0135
1611.	0.2285	3777.	0.012
1612.	0.2302	3778.	0.0122

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1613.	0.2302	3779.	0.0142
1614.	0.2299	3780.	0.012
1615.	0.2273	3781.	0.0131
1616.	0.226	3782.	0.0089
1617.	0.2287	3783.	0.0148
1618.	0.2259	3784.	0.0101
1619.	0.2292	3785.	0.0137
1620.	0.2268	3786.	0.0101
1621.	0.227	3787.	0.009
1622.	0.2281	3788.	0.0148
1623.	0.2264	3789.	0.0135
1624.	0.2239	3790.	0.0101
1625.	0.2249	3791.	0.0106
1626.	0.2242	3792.	0.0125
1627.	0.2259	3793.	0.0129
1628.	0.2237	3794.	0.0144
1629.	0.2244	3795.	0.013
1630.	0.2255	3796.	0.0153
1631.	0.2252	3797.	0.0121
1632.	0.2234	3798.	0.0141
1633.	0.221	3799.	0.0118
1634.	0.2247	3800.	0.0117
1635.	0.2249	3801.	0.0108
1636.	0.2211	3802.	0.0123
1637.	0.2246	3803.	0.0129
1638.	0.2258	3804.	0.0108
1639.	0.2225	3805.	0.0122
1640.	0.223	3806.	0.0124
1641.	0.2192	3807.	0.0125
1642.	0.2202	3808.	0.0128
1643.	0.2193	3809.	0.011
1644.	0.2204	3810.	0.0122
1645.	0.2231	3811.	0.0129
1646.	0.2206	3812.	0.0099
1647.	0.2213	3813.	0.0107
1648.	0.2196	3814.	0.0116
1649.	0.2229	3815.	0.0132
1650.	0.2206	3816.	0.0109
1651.	0.2182	3817.	0.0117
1652.	0.2194	3818.	0.0089
1653.	0.2187	3819.	0.0106
1654.	0.2182	3820.	0.0086
1655.	0.2179	3821.	0.011
1656.	0.2174	3822.	0.0141
1657.	0.2193	3823.	0.0108
1658.	0.2202	3824.	0.0107
1659.	0.2156	3825.	0.011
1660.	0.2156	3826.	0.0101
1661.	0.2176	3827.	0.0134
1662.	0.2158	3828.	0.0086
1663.	0.2145	3829.	0.0131
1664.	0.2165	3830.	0.0113
1665.	0.2127	3831.	0.012
1666.	0.2144	3832.	0.0124
1667.	0.2194	3833.	0.0106
1668.	0.2152	3834.	0.0091
1669.	0.217	3835.	0.0108
1670.	0.215	3836.	0.0106
1671.	0.214	3837.	0.0103
1672.	0.2156	3838.	0.0098
1673.	0.2149	3839.	0.0113
1674.	0.2133	3840.	0.008
1675.	0.2153	3841.	0.0103
1676.	0.2149	3842.	0.0106
1677.	0.2148	3843.	0.0108
1678.	0.2154	3844.	0.0122

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1679.	0.2139	3845.	0.0104
1680.	0.2142	3846.	0.0102
1681.	0.2105	3847.	0.0114
1682.	0.213	3848.	0.0105
1683.	0.2118	3849.	0.0096
1684.	0.2122	3850.	0.0109
1685.	0.2161	3851.	0.0113
1686.	0.212	3852.	0.0113
1687.	0.2121	3853.	0.0115
1688.	0.2118	3854.	0.0114
1689.	0.2149	3855.	0.0118
1690.	0.2122	3856.	0.0132
1691.	0.2139	3857.	0.0106
1692.	0.2096	3858.	0.0093
1693.	0.2134	3859.	0.0115
1694.	0.2082	3860.	0.0103
1695.	0.2121	3861.	0.0113
1696.	0.2103	3862.	0.0117
1697.	0.2099	3863.	0.0127
1698.	0.2068	3864.	0.0091
1699.	0.2082	3865.	0.0104
1700.	0.2081	3866.	0.0093
1701.	0.2084	3867.	0.0151
1702.	0.2089	3868.	0.0112
1703.	0.2115	3869.	0.0097
1704.	0.2077	3870.	0.0105
1705.	0.2072	3871.	0.0101
1706.	0.2056	3872.	0.0139
1707.	0.207	3873.	0.007
1708.	0.206	3874.	0.0118
1709.	0.2059	3875.	0.0129
1710.	0.2077	3876.	0.012
1711.	0.2055	3877.	0.011
1712.	0.2065	3878.	0.0122
1713.	0.2056	3879.	0.0124
1714.	0.2092	3880.	0.0086
1715.	0.2054	3881.	0.0118
1716.	0.2051	3882.	0.0106
1717.	0.2034	3883.	0.012
1718.	0.2031	3884.	0.0086
1719.	0.2037	3885.	0.0091
1720.	0.2064	3886.	0.0101
1721.	0.2065	3887.	0.0127
1722.	0.2048	3888.	0.0084
1723.	0.2037	3889.	0.012
1724.	0.2048	3890.	0.0105
1725.	0.2012	3891.	0.0098
1726.	0.2051	3892.	0.0125
1727.	0.2028	3893.	0.0105
1728.	0.2026	3894.	0.0082
1729.	0.2008	3895.	0.0105
1730.	0.2008	3896.	0.0118
1731.	0.2002	3897.	0.0081
1732.	0.202	3898.	0.0096
1733.	0.2015	3899.	0.0082
1734.	0.2018	3900.	0.0095
1735.	0.2017	3901.	0.0085
1736.	0.2002	3902.	0.0137
1737.	0.1998	3903.	0.0108
1738.	0.1977	3904.	0.0094
1739.	0.2015	3905.	0.0079
1740.	0.2005	3906.	0.0082
1741.	0.2022	3907.	0.0092
1742.	0.1979	3908.	0.0101
1743.	0.1965	3909.	0.0089
1744.	0.2037	3910.	0.0089

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1745.	0.1982	3911.	0.0101
1746.	0.1972	3912.	0.0111
1747.	0.1977	3913.	0.0096
1748.	0.2007	3914.	0.0103
1749.	0.1999	3915.	0.0067
1750.	0.1965	3916.	0.0077
1751.	0.1973	3917.	0.0088
1752.	0.1967	3918.	0.0091
1753.	0.1956	3919.	0.0089
1754.	0.197	3920.	0.0087
1755.	0.1981	3921.	0.0098
1756.	0.1933	3922.	0.0108
1757.	0.1946	3923.	0.0087
1758.	0.1983	3924.	0.0089
1759.	0.1974	3925.	0.0072
1760.	0.1963	3926.	0.0106
1761.	0.1937	3927.	0.0098
1762.	0.1951	3928.	0.0094
1763.	0.1936	3929.	0.0079
1764.	0.1916	3930.	0.0105
1765.	0.1938	3931.	0.0098
1766.	0.195	3932.	0.0098
1767.	0.1932	3933.	0.0105
1768.	0.1949	3934.	0.011
1769.	0.1937	3935.	0.0086
1770.	0.1939	3936.	0.0084
1771.	0.1915	3937.	0.0095
1772.	0.1918	3938.	0.0088
1773.	0.1948	3939.	0.0076
1774.	0.1927	3940.	0.0086
1775.	0.1926	3941.	0.0091
1776.	0.1895	3942.	0.0113
1777.	0.1951	3943.	0.0093
1778.	0.194	3944.	0.0082
1779.	0.192	3945.	0.0098
1780.	0.1905	3946.	0.012
1781.	0.1893	3947.	0.0107
1782.	0.1886	3948.	0.0125
1783.	0.1898	3949.	0.0095
1784.	0.1891	3950.	0.0074
1785.	0.1889	3951.	0.011
1786.	0.1926	3952.	0.0108
1787.	0.1871	3953.	0.0103
1788.	0.1881	3954.	0.0088
1789.	0.1893	3955.	0.0077
1790.	0.1882	3956.	0.0053
1791.	0.1858	3957.	0.0074
1792.	0.1871	3958.	0.0084
1793.	0.1897	3959.	0.0067
1794.	0.1884	3960.	0.0103
1795.	0.1853	3961.	0.0086
1796.	0.189	3962.	0.0063
1797.	0.1855	3963.	0.0096
1798.	0.1872	3964.	0.013
1799.	0.1874	3965.	0.008
1800.	0.1862	3966.	0.0109
1801.	0.1855	3967.	0.0106
1802.	0.186	3968.	0.0107
1803.	0.1878	3969.	0.0078
1804.	0.1839	3970.	0.008
1805.	0.1822	3971.	0.0091
1806.	0.1858	3972.	0.0061
1807.	0.1864	3973.	0.0083
1808.	0.1859	3974.	0.007
1809.	0.1865	3975.	0.0076
1810.	0.1862	3976.	0.0074

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1811.	0.1852	3977.	0.0041
1812.	0.1807	3978.	0.0113
1813.	0.1852	3979.	0.0073
1814.	0.1792	3980.	0.0097
1815.	0.181	3981.	0.0074
1816.	0.1829	3982.	0.0084
1817.	0.1845	3983.	0.0087
1818.	0.1815	3984.	0.0065
1819.	0.1814	3985.	0.0096
1820.	0.1812	3986.	0.0062
1821.	0.1827	3987.	0.0092
1822.	0.1789	3988.	0.0079
1823.	0.1802	3989.	0.0063
1824.	0.1803	3990.	0.0099
1825.	0.1802	3991.	0.0054
1826.	0.1803	3992.	0.0086
1827.	0.1818	3993.	0.0082
1828.	0.1783	3994.	0.0064
1829.	0.1793	3995.	0.0089
1830.	0.1807	3996.	0.0047
1831.	0.1838	3997.	0.007
1832.	0.1773	3998.	0.0074
1833.	0.18	3999.	0.0078
1834.	0.1818	4000.	0.0068
1835.	0.1752	4001.	0.0105
1836.	0.1796	4002.	0.0072
1837.	0.1766	4003.	0.0058
1838.	0.1769	4004.	0.0094
1839.	0.1805	4005.	0.0084
1840.	0.1778	4006.	0.0077
1841.	0.182	4007.	0.0071
1842.	0.1786	4008.	0.0079
1843.	0.1777	4009.	0.0072
1844.	0.1759	4010.	0.0074
1845.	0.1763	4011.	0.0075
1846.	0.1778	4012.	0.009
1847.	0.1772	4013.	0.0122
1848.	0.1628	4014.	0.0089
1849.	0.1626	4015.	0.0069
1850.	0.1609	4016.	0.0082
1851.	0.1629	4017.	0.0064
1852.	0.1733	4018.	0.0077
1853.	0.1795	4019.	0.0062
1854.	0.1768	4020.	0.008
1855.	0.1736	4021.	0.0086
1856.	0.1762	4022.	0.0074
1857.	0.1748	4023.	0.0089
1858.	0.1742	4024.	0.0092
1859.	0.1765	4025.	0.0091
1860.	0.1772	4026.	0.0089
1861.	0.1759	4027.	0.0077
1862.	0.1754	4028.	0.0096
1863.	0.1755	4029.	0.0079
1864.	0.1738	4030.	0.0074
1865.	0.1752	4031.	0.0096
1866.	0.1774	4032.	0.0108
1867.	0.1719	4033.	0.0074
1868.	0.1773	4034.	0.0077
1869.	0.1733	4035.	0.006
1870.	0.1739	4036.	0.0084
1871.	0.1725	4037.	0.007
1872.	0.1748	4038.	0.0064
1873.	0.1713	4039.	0.0067
1874.	0.1775	4040.	0.0077
1875.	0.1737	4041.	0.0102
1876.	0.1743	4042.	0.0072

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1877.	0.175	4043.	0.0082
1878.	0.1742	4044.	0.007
1879.	0.173	4045.	0.0092
1880.	0.1717	4046.	0.0099
1881.	0.1718	4047.	0.0051
1882.	0.1712	4048.	0.006
1883.	0.1738	4049.	0.0064
1884.	0.1714	4050.	0.0059
1885.	0.1693	4051.	0.007
1886.	0.1717	4052.	0.0065
1887.	0.1708	4053.	0.0062
1888.	0.1695	4054.	0.0063
1889.	0.1677	4055.	0.006
1890.	0.1667	4056.	0.0025
1891.	0.1695	4057.	0.0077
1892.	0.1722	4058.	0.0075
1893.	0.1714	4059.	0.0092
1894.	0.1695	4060.	0.0067
1895.	0.1686	4061.	0.0081
1896.	0.1683	4062.	0.0082
1897.	0.1702	4063.	0.0044
1898.	0.1667	4064.	0.0082
1899.	0.1691	4065.	0.0077
1900.	0.1691	4066.	0.0093
1901.	0.1657	4067.	0.0063
1902.	0.168	4068.	0.0055
1903.	0.1668	4069.	0.0082
1904.	0.1638	4070.	0.0079
1905.	0.1647	4071.	0.0073
1906.	0.167	4072.	0.0077
1907.	0.1659	4073.	0.007
1908.	0.1659	4074.	0.0107
1909.	0.165	4075.	0.0067
1910.	0.169	4076.	0.0064
1911.	0.1637	4077.	0.0077
1912.	0.1676	4078.	0.0077
1913.	0.1652	4079.	0.0058
1914.	0.1654	4080.	0.0084
1915.	0.1664	4081.	0.0039
1916.	0.1651	4082.	0.0085
1917.	0.163	4083.	0.0065
1918.	0.1657	4084.	0.0081
1919.	0.1619	4085.	0.0101
1920.	0.1618	4086.	0.0073
1921.	0.1633	4087.	0.0061
1922.	0.163	4088.	0.0055
1923.	0.1596	4089.	0.0048
1924.	0.1643	4090.	0.0067
1925.	0.163	4091.	0.0041
1926.	0.1637	4092.	0.006
1927.	0.1621	4093.	0.0056
1928.	0.1624	4094.	0.007
1929.	0.1626	4095.	0.0074
1930.	0.1621	4096.	0.0051
1931.	0.1616	4097.	0.0051
1932.	0.1605	4098.	0.0058
1933.	0.164	4099.	0.007
1934.	0.1614	4100.	0.0073
1935.	0.1628	4101.	0.0036
1936.	0.1619	4102.	0.0047
1937.	0.1624	4103.	0.0049
1938.	0.1595	4104.	0.0059
1939.	0.1604	4105.	0.0055
1940.	0.1572	4106.	0.0041
1941.	0.1627	4107.	0.0053
1942.	0.1585	4108.	0.0069

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1943.	0.1609	4109.	0.0064
1944.	0.1612	4110.	0.005
1945.	0.157	4111.	0.0066
1946.	0.1568	4112.	0.0051
1947.	0.1566	4113.	0.0031
1948.	0.1571	4114.	0.0057
1949.	0.158	4115.	0.0069
1950.	0.1551	4116.	0.0045
1951.	0.1551	4117.	0.0041
1952.	0.1578	4118.	0.0039
1953.	0.1532	4119.	0.0053
1954.	0.1562	4120.	0.0056
1955.	0.1554	4121.	0.0067
1956.	0.1549	4122.	0.0036
1957.	0.1563	4123.	0.0041
1958.	0.1561	4124.	0.0055
1959.	0.1575	4125.	0.0064
1960.	0.1571	4126.	0.0052
1961.	0.1561	4127.	0.0067
1962.	0.155	4128.	0.0041
1963.	0.1565	4129.	0.0077
1964.	0.1571	4130.	0.0039
1965.	0.1548	4131.	0.006
1966.	0.1556	4132.	0.0055
1967.	0.1549	4133.	0.0044
1968.	0.1578	4134.	0.0058
1969.	0.1521	4135.	0.0062
1970.	0.1555	4136.	0.0055
1971.	0.1552	4137.	0.0078
1972.	0.1522	4138.	0.0043
1973.	0.1547	4139.	0.0038
1974.	0.1553	4140.	0.0045
1975.	0.1542	4141.	0.0055
1976.	0.1542	4142.	0.006
1977.	0.1551	4143.	0.0051
1978.	0.1564	4144.	0.0058
1979.	0.157	4145.	0.0089
1980.	0.1534	4146.	0.0058
1981.	0.1536	4147.	0.0057
1982.	0.1543	4148.	0.0058
1983.	0.1522	4149.	0.0068
1984.	0.1507	4150.	0.0086
1985.	0.1532	4151.	0.0041
1986.	0.1513	4152.	0.0055
1987.	0.1547	4153.	0.0048
1988.	0.1539	4154.	0.005
1989.	0.152	4155.	0.0017
1990.	0.1495	4156.	0.0034
1991.	0.1498	4157.	0.0031
1992.	0.152	4158.	0.0057
1993.	0.1532	4159.	0.0037
1994.	0.1493	4160.	0.0031
1995.	0.1507	4161.	0.0043
1996.	0.1507	4162.	0.0037
1997.	0.1493	4163.	0.0026
1998.	0.1485	4164.	0.0039
1999.	0.1468	4165.	0.0067
2000.	0.1516	4166.	0.0028
2001.	0.1491	4167.	0.0042
2002.	0.1513	4168.	0.0024
2003.	0.1519	4169.	0.0075
2004.	0.1491	4170.	0.0057
2005.	0.1495	4171.	0.0065
2006.	0.1475	4172.	0.0036
2007.	0.1473	4173.	0.004
2008.	0.1484	4174.	0.0035

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2009.	0.1462	4175.	0.0045
2010.	0.1483	4176.	0.0048
2011.	0.1461	4177.	0.0041
2012.	0.1479	4178.	0.0062
2013.	0.1473	4179.	0.0026
2014.	0.1487	4180.	0.0057
2015.	0.1495	4181.	0.0052
2016.	0.1469	4182.	0.0031
2017.	0.1452	4183.	0.0036
2018.	0.1459	4184.	0.0039
2019.	0.1439	4185.	0.0008
2020.	0.144	4186.	0.0088
2021.	0.1464	4187.	0.0039
2022.	0.1468	4188.	0.0069
2023.	0.1441	4189.	0.0032
2024.	0.1483	4190.	0.0072
2025.	0.1447	4191.	0.0029
2026.	0.144	4192.	0.0041
2027.	0.1419	4193.	0.0031
2028.	0.1437	4194.	0.0034
2029.	0.1447	4195.	0.0018
2030.	0.1411	4196.	0.0072
2031.	0.1439	4197.	0.0042
2032.	0.1411	4198.	0.0039
2033.	0.1435	4199.	0.0043
2034.	0.144	4200.	0.0024
2035.	0.1445	4201.	0.0033
2036.	0.1418	4202.	0.0028
2037.	0.1434	4203.	0.0021
2038.	0.1411	4204.	0.0034
2039.	0.1437	4205.	0.0031
2040.	0.1423	4206.	0.004
2041.	0.1452	4207.	0.0023
2042.	0.1401	4208.	0.0014
2043.	0.1412	4209.	0.0055
2044.	0.1399	4210.	0.0046
2045.	0.1421	4211.	0.0017
2046.	0.1399	4212.	0.0027
2047.	0.1387	4213.	0.0031
2048.	0.1404	4214.	0.0058
2049.	0.1411	4215.	0.0079
2050.	0.1416	4216.	0.0027
2051.	0.1396	4217.	0.0054
2052.	0.1417	4218.	0.0054
2053.	0.1406	4219.	0.0059
2054.	0.1385	4220.	0.0041
2055.	0.1377	4221.	0.0062
2056.	0.1375	4222.	0.0065
2057.	0.1418	4223.	0.0025
2058.	0.1422	4224.	0.0038
2059.	0.1354	4225.	0.0079
2060.	0.1347	4226.	0.0021
2061.	0.1391	4227.	0.0048
2062.	0.138	4228.	0.0054
2063.	0.1388	4229.	0.0043
2064.	0.1394	4230.	0.0044
2065.	0.1399	4231.	0.0055
2066.	0.1346	4232.	0.0015
2067.	0.1399	4233.	0.0003
2068.	0.1335	4234.	0.0018
2069.	0.1396	4235.	0.0044
2070.	0.1369	4236.	0.004
2071.	0.136	4237.	0.006
2072.	0.1393	4238.	0.0028
2073.	0.1368	4239.	0.006
2074.	0.1398	4240.	0.0059

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2075.	0.1397	4241.	0.0025
2076.	0.1397	4242.	0.0048
2077.	0.1368	4243.	0.0044
2078.	0.1361	4244.	0.0086
2079.	0.1337	4245.	0.0016
2080.	0.1348	4246.	0.0055
2081.	0.1354	4247.	0.0033
2082.	0.1387	4248.	0.0048
2083.	0.1354	4249.	0.0059
2084.	0.1338	4250.	0.0074
2085.	0.1369	4251.	0.0039
2086.	0.1344	4252.	0.0015
2087.	0.1337	4253.	0.0019
2088.	0.1355	4254.	0.0036
2089.	0.1339	4255.	0.0003
2090.	0.1351	4256.	0.0074
2091.	0.1367	4257.	0.0034
2092.	0.1355	4258.	0.0019
2093.	0.1343	4259.	0.
2094.	0.1359	4260.	0.0037
2095.	0.1363	4261.	0.0022
2096.	0.1311	4262.	0.0019
2097.	0.135	4263.	0.0023
2098.	0.1318	4264.	0.0043
2099.	0.1326	4265.	0.0008
2100.	0.1363	4266.	0.0016
2101.	0.134	4267.	0.0058
2102.	0.1332	4268.	0.0032
2103.	0.1334	4269.	0.0041
2104.	0.1341	4270.	0.0051
2105.	0.1319	4271.	0.0055
2106.	0.131	4272.	0.0046
2107.	0.1318	4273.	0.0059
2108.	0.1333	4274.	0.0035
2109.	0.1315	4275.	0.0067
2110.	0.1309	4277.	0.0023
2111.	0.1323	4278.	0.0022
2112.	0.1298	4279.	0.0041
2113.	0.1282	4280.	0.0036
2114.	0.1314	4281.	0.0015
2115.	0.1321	4282.	0.0038
2116.	0.1318	4283.	0.0024
2117.	0.1308	4284.	0.0015
2118.	0.1298	4285.	0.0029
2119.	0.1303	4286.	0.0008
2120.	0.1307	4287.	0.0018
2121.	0.1312	4288.	0.0043
2122.	0.131	4289.	0.0048
2123.	0.1301	4290.	0.0022
2124.	0.1287	4291.	0.0012
2125.	0.1291	4292.	0.006
2126.	0.1292	4293.	0.0026
2127.	0.1302	4294.	0.0001
2128.	0.1324	4295.	0.0045
2129.	0.1289	4296.	0.0037
2130.	0.1298	4297.	0.0051
2131.	0.1294	4298.	0.0029
2132.	0.1297	4299.	0.0045
2133.	0.1275	4300.	0.0052
2134.	0.1281	4301.	0.0055
2135.	0.1254	4302.	0.0027
2136.	0.1287	4303.	0.0022
2137.	0.1285	4304.	0.0037
2138.	0.1273	4305.	0.0037
2139.	0.1263	4306.	0.0011
2140.	0.129	4307.	0.0067

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2141.	0.1281	4308.	0.0029
2142.	0.1239	4309.	0.0034
2143.	0.128	4310.	0.0042
2144.	0.1262	4311.	0.0042
2145.	0.1276	4312.	0.0017
2146.	0.1267	4313.	0.001
2147.	0.1285	4314.	0.0026
2148.	0.1242	4315.	0.001
2149.	0.1118	4316.	0.
2150.	0.1194	4317.	0.0038
2151.	0.1182	4318.	0.
2152.	0.1153	4319.	0.0012
2153.	0.1299	4320.	0.0031
2154.	0.1305	4321.	0.0024
2155.	0.1304	4322.	0.001
2156.	0.1269	4323.	0.0039
2157.	0.1321	4324.	0.0008
2158.	0.13	4325.	0.0039
2159.	0.1284	4326.	0.0036
2160.	0.1307	4327.	0.0045
2161.	0.1297	4328.	0.0015
2162.	0.1292	4329.	0.0008
2163.	0.1266	4331.	0.0047
2164.	0.129	4332.	0.0126
2165.	0.1301		

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.39

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001708	cm/sec
y0	1.273	ft

T = K*b = 0.06746 cm²/sec

Aquifer Slug Test Data

Well MW-4

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:18:14

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: MW-4

AQUIFER DATA

Saturated Thickness: 14.92 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: MW-4

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.1 ft
Static Water Column Height: 14.92 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 1. ft
Screen Length: 10. ft
Total Well Penetration Depth: 14.92 ft

No. of Observations: 5953

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.063	2977.	0.0908
1.	1.033	2978.	0.0908
2.	0.9964	2979.	0.0922
3.	0.5612	2980.	0.0919
4.	0.558	2981.	0.0914
5.	0.5503	2982.	0.0909
6.	0.5517	2983.	0.0879
7.	0.5443	2984.	0.0913
8.	0.54	2985.	0.0924
9.	0.539	2986.	0.0905
10.	0.5358	2987.	0.0901
11.	0.5377	2988.	0.0927
12.	0.5329	2989.	0.0926
13.	0.5316	2990.	0.091
14.	0.5152	2991.	0.0934
15.	0.4833	2992.	0.0902
16.	0.476	2993.	0.0922
17.	0.4764	2994.	0.0929
18.	0.4655	2995.	0.0929
19.	0.455	2996.	0.0896
20.	0.4536	2997.	0.093
21.	0.4585	2998.	0.0975
22.	0.5655	2999.	0.0917
23.	0.4808	3000.	0.0921
24.	0.5136	3001.	0.0915
25.	0.509	3002.	0.0913
26.	0.5066	3003.	0.0914
27.	0.5	3004.	0.0965
28.	0.497	3005.	0.0889
29.	0.4965	3006.	0.0933
30.	0.4944	3007.	0.0905

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
31.	0.487	3008.	0.0899
32.	0.4774	3009.	0.0915
33.	0.4808	3010.	0.0944
34.	0.481	3011.	0.0883
35.	0.4775	3012.	0.0905
36.	0.4762	3013.	0.0916
37.	0.4766	3014.	0.0932
38.	0.4844	3015.	0.0903
39.	0.4863	3016.	0.0903
40.	0.484	3017.	0.0902
41.	0.4815	3018.	0.0903
42.	0.4827	3019.	0.0918
43.	0.4795	3020.	0.092
44.	0.4777	3021.	0.0924
45.	0.4796	3022.	0.0915
46.	0.4768	3023.	0.0909
47.	0.4746	3024.	0.0897
48.	0.474	3025.	0.0903
49.	0.4705	3026.	0.0887
50.	0.4715	3027.	0.0905
51.	0.4745	3028.	0.09
52.	0.4726	3029.	0.0913
53.	0.4674	3030.	0.09
54.	0.4681	3031.	0.0912
55.	0.4679	3032.	0.0927
56.	0.4663	3033.	0.0903
57.	0.4648	3034.	0.092
58.	0.4631	3035.	0.0905
59.	0.4624	3036.	0.0879
60.	0.4634	3037.	0.0896
61.	0.4645	3038.	0.0915
62.	0.4606	3039.	0.0917
63.	0.4624	3040.	0.0886
64.	0.4638	3041.	0.0894
65.	0.4628	3042.	0.0917
66.	0.4471	3043.	0.0929
67.	0.4442	3044.	0.09
68.	0.4445	3045.	0.0896
69.	0.446	3046.	0.089
70.	0.4481	3047.	0.0929
71.	0.4543	3048.	0.0915
72.	0.4531	3049.	0.0908
73.	0.4524	3050.	0.0879
74.	0.4495	3051.	0.0883
75.	0.4504	3052.	0.0903
76.	0.4521	3053.	0.0898
77.	0.4504	3054.	0.0907
78.	0.4522	3055.	0.0898
79.	0.4461	3056.	0.0879
80.	0.4451	3057.	0.0886
81.	0.4449	3058.	0.0876
82.	0.446	3059.	0.0888
83.	0.4465	3060.	0.0882
84.	0.4479	3061.	0.0906
85.	0.4454	3062.	0.0884
86.	0.4474	3063.	0.0882
87.	0.4416	3064.	0.0879
88.	0.4402	3065.	0.0903
89.	0.4429	3066.	0.0908
90.	0.4404	3067.	0.0888
91.	0.4448	3068.	0.088
92.	0.4423	3069.	0.0899
93.	0.4395	3070.	0.0881
94.	0.4402	3071.	0.0897
95.	0.4401	3072.	0.0886
96.	0.4372	3073.	0.0876

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
97.	0.4377	3074.	0.088
98.	0.4359	3075.	0.0854
99.	0.4391	3076.	0.0893
100.	0.4363	3077.	0.0872
101.	0.4346	3078.	0.0884
102.	0.4358	3079.	0.0901
103.	0.434	3080.	0.0877
104.	0.4316	3081.	0.0895
105.	0.4304	3082.	0.0884
106.	0.4306	3083.	0.0887
107.	0.4319	3084.	0.0884
108.	0.4321	3085.	0.0865
109.	0.431	3086.	0.0859
110.	0.4306	3087.	0.0873
111.	0.428	3088.	0.0913
112.	0.429	3089.	0.0884
113.	0.4266	3090.	0.0878
114.	0.4297	3091.	0.0892
115.	0.4302	3092.	0.0872
116.	0.4256	3093.	0.0872
117.	0.4249	3094.	0.087
118.	0.4262	3095.	0.0887
119.	0.428	3096.	0.0839
120.	0.4278	3097.	0.0862
121.	0.4225	3098.	0.0868
122.	0.4251	3099.	0.0889
123.	0.4228	3100.	0.0865
124.	0.4238	3101.	0.0868
125.	0.422	3102.	0.0886
126.	0.4239	3103.	0.0876
127.	0.4254	3104.	0.0884
128.	0.4264	3105.	0.0889
129.	0.4248	3106.	0.0893
130.	0.422	3107.	0.0864
131.	0.424	3108.	0.0876
132.	0.4235	3109.	0.0865
133.	0.4196	3110.	0.0863
134.	0.4218	3111.	0.0883
135.	0.4181	3112.	0.0831
136.	0.4211	3113.	0.0864
137.	0.4213	3114.	0.087
138.	0.4196	3115.	0.0841
139.	0.4179	3116.	0.0852
140.	0.4196	3117.	0.0861
141.	0.4179	3118.	0.0879
142.	0.4184	3119.	0.088
143.	0.4195	3120.	0.0832
144.	0.4206	3121.	0.0854
145.	0.4181	3122.	0.0874
146.	0.4188	3123.	0.0868
147.	0.4167	3124.	0.0847
148.	0.4181	3125.	0.089
149.	0.4177	3126.	0.0879
150.	0.4189	3127.	0.0869
151.	0.4161	3128.	0.0873
152.	0.4176	3129.	0.087
153.	0.4138	3130.	0.0863
154.	0.416	3131.	0.0867
155.	0.4151	3132.	0.087
156.	0.4123	3133.	0.0837
157.	0.4126	3134.	0.086
158.	0.4112	3135.	0.086
159.	0.4117	3136.	0.0861
160.	0.4109	3137.	0.0882
161.	0.4111	3138.	0.0852
162.	0.4104	3139.	0.085

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
163.	0.412	3140.	0.0864
164.	0.4102	3141.	0.0884
165.	0.4115	3142.	0.0838
166.	0.4098	3143.	0.0832
167.	0.4094	3144.	0.0866
168.	0.4124	3145.	0.0831
169.	0.4107	3146.	0.0862
170.	0.4092	3147.	0.0867
171.	0.4089	3148.	0.0836
172.	0.4119	3149.	0.0861
173.	0.4098	3150.	0.0872
174.	0.4067	3151.	0.0839
175.	0.4053	3152.	0.0848
176.	0.4079	3153.	0.0843
177.	0.4066	3154.	0.0874
178.	0.409	3155.	0.0896
179.	0.4043	3156.	0.0871
180.	0.4047	3157.	0.0857
181.	0.4028	3158.	0.0848
182.	0.4079	3159.	0.0872
183.	0.4049	3160.	0.0858
184.	0.4027	3161.	0.0833
185.	0.4056	3162.	0.0838
186.	0.4022	3163.	0.0857
187.	0.4044	3164.	0.0853
188.	0.4039	3165.	0.0838
189.	0.4037	3166.	0.0846
190.	0.4029	3167.	0.0848
191.	0.4005	3168.	0.0853
192.	0.403	3169.	0.0875
193.	0.3994	3170.	0.0865
194.	0.4027	3171.	0.0839
195.	0.3986	3172.	0.0859
196.	0.3987	3173.	0.0824
197.	0.3982	3174.	0.0848
198.	0.399	3175.	0.0881
199.	0.4008	3176.	0.0817
200.	0.4009	3177.	0.0845
201.	0.3967	3178.	0.0842
202.	0.3977	3179.	0.0848
203.	0.4011	3180.	0.0869
204.	0.3982	3181.	0.0826
205.	0.3942	3182.	0.0825
206.	0.3959	3183.	0.0846
207.	0.3993	3184.	0.0857
208.	0.3953	3185.	0.0844
209.	0.3967	3186.	0.0843
210.	0.3989	3187.	0.0836
211.	0.3948	3188.	0.0838
212.	0.3974	3189.	0.0858
213.	0.3962	3190.	0.0836
214.	0.3929	3191.	0.0846
215.	0.3931	3192.	0.0843
216.	0.395	3193.	0.084
217.	0.3936	3194.	0.0843
218.	0.3929	3195.	0.0839
219.	0.3923	3196.	0.081
220.	0.3936	3197.	0.0827
221.	0.3914	3198.	0.0831
222.	0.3912	3199.	0.0822
223.	0.3924	3200.	0.0834
224.	0.3915	3201.	0.0831
225.	0.3909	3202.	0.0828
226.	0.3925	3203.	0.0818
227.	0.3914	3204.	0.0807
228.	0.3879	3205.	0.0793

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
229.	0.3885	3206.	0.0786
230.	0.3893	3207.	0.0831
231.	0.3898	3208.	0.0828
232.	0.3869	3209.	0.0813
233.	0.3908	3210.	0.0831
234.	0.3876	3211.	0.078
235.	0.3875	3212.	0.0829
236.	0.3883	3213.	0.0795
237.	0.3879	3214.	0.0834
238.	0.384	3215.	0.0831
239.	0.3896	3216.	0.0821
240.	0.3865	3217.	0.0784
241.	0.3849	3218.	0.0849
242.	0.3893	3219.	0.0821
243.	0.382	3220.	0.0816
244.	0.389	3221.	0.0819
245.	0.3838	3222.	0.0841
246.	0.3826	3223.	0.0833
247.	0.3819	3224.	0.0836
248.	0.3873	3225.	0.0832
249.	0.3826	3226.	0.0822
250.	0.3849	3227.	0.0801
251.	0.3836	3228.	0.0829
252.	0.381	3229.	0.0815
253.	0.3821	3230.	0.0811
254.	0.3805	3231.	0.0826
255.	0.3837	3232.	0.0829
256.	0.3848	3233.	0.0816
257.	0.3817	3234.	0.0786
258.	0.3812	3235.	0.082
259.	0.38	3236.	0.0815
260.	0.3805	3237.	0.0822
261.	0.379	3238.	0.0839
262.	0.3802	3239.	0.0798
263.	0.381	3240.	0.0814
264.	0.3827	3241.	0.0824
265.	0.3803	3242.	0.081
266.	0.3766	3243.	0.082
267.	0.3765	3244.	0.081
268.	0.3798	3245.	0.0794
269.	0.3785	3246.	0.0803
270.	0.3777	3247.	0.0764
271.	0.3791	3248.	0.0822
272.	0.377	3249.	0.0775
273.	0.3756	3250.	0.0829
274.	0.3757	3251.	0.083
275.	0.3772	3252.	0.0833
276.	0.375	3253.	0.0825
277.	0.3743	3254.	0.081
278.	0.3764	3255.	0.079
279.	0.3741	3256.	0.0822
280.	0.3729	3257.	0.082
281.	0.3767	3258.	0.0798
282.	0.3738	3259.	0.0822
283.	0.3726	3260.	0.083
284.	0.3745	3261.	0.0825
285.	0.3722	3262.	0.0831
286.	0.3743	3263.	0.0839
287.	0.3707	3264.	0.0827
288.	0.3709	3265.	0.0789
289.	0.3707	3266.	0.08
290.	0.37	3267.	0.0793
291.	0.3721	3268.	0.0826
292.	0.3688	3269.	0.0789
293.	0.369	3270.	0.0796
294.	0.3702	3271.	0.0759

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
295.	0.3685	3272.	0.0815
296.	0.3676	3273.	0.0823
297.	0.3676	3274.	0.0803
298.	0.3706	3275.	0.081
299.	0.3705	3276.	0.0782
300.	0.3705	3277.	0.0802
301.	0.3697	3278.	0.0791
302.	0.3678	3279.	0.0824
303.	0.3678	3280.	0.0816
304.	0.3652	3281.	0.081
305.	0.3657	3282.	0.0811
306.	0.3661	3283.	0.0801
307.	0.3678	3284.	0.082
308.	0.3666	3285.	0.0832
309.	0.3661	3286.	0.0786
310.	0.3677	3287.	0.081
311.	0.3685	3288.	0.0794
312.	0.3679	3289.	0.0816
313.	0.3671	3290.	0.0817
314.	0.366	3291.	0.0808
315.	0.3649	3292.	0.0798
316.	0.3628	3293.	0.0831
317.	0.364	3294.	0.0777
318.	0.3618	3295.	0.0769
319.	0.3625	3296.	0.0796
320.	0.3625	3297.	0.0822
321.	0.364	3298.	0.0779
322.	0.3631	3299.	0.0777
323.	0.3638	3300.	0.0808
324.	0.3616	3301.	0.0796
325.	0.3649	3302.	0.0796
326.	0.3628	3303.	0.0791
327.	0.3623	3304.	0.0823
328.	0.3595	3305.	0.0794
329.	0.3609	3306.	0.0795
330.	0.3613	3307.	0.0784
331.	0.3607	3308.	0.0791
332.	0.3612	3309.	0.081
333.	0.3614	3310.	0.0791
334.	0.3589	3311.	0.0828
335.	0.3601	3312.	0.0806
336.	0.3597	3313.	0.0788
337.	0.3579	3314.	0.0791
338.	0.3573	3315.	0.0812
339.	0.3544	3316.	0.0792
340.	0.359	3317.	0.0782
341.	0.3585	3318.	0.0779
342.	0.3569	3319.	0.0784
343.	0.3596	3320.	0.0783
344.	0.3552	3321.	0.0798
345.	0.3561	3322.	0.0817
346.	0.3563	3323.	0.0791
347.	0.3566	3324.	0.0772
348.	0.3568	3325.	0.08
349.	0.3542	3326.	0.0772
350.	0.3533	3327.	0.0774
351.	0.3542	3328.	0.0779
352.	0.3532	3329.	0.0802
353.	0.3537	3330.	0.079
354.	0.3579	3331.	0.0783
355.	0.359	3332.	0.0793
356.	0.3541	3333.	0.08
357.	0.3549	3334.	0.0797
358.	0.3532	3335.	0.0763
359.	0.3533	3336.	0.0791
360.	0.354	3337.	0.0769

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
361.	0.3558	3338.	0.0788
362.	0.3503	3339.	0.0789
363.	0.3525	3340.	0.0788
364.	0.3524	3341.	0.0809
365.	0.349	3342.	0.0776
366.	0.3538	3343.	0.0816
367.	0.3514	3344.	0.0785
368.	0.3501	3345.	0.0813
369.	0.3513	3346.	0.0805
370.	0.3506	3347.	0.0782
371.	0.3511	3348.	0.0791
372.	0.3488	3349.	0.0793
373.	0.3461	3350.	0.0773
374.	0.3487	3351.	0.0783
375.	0.3484	3352.	0.0748
376.	0.3483	3353.	0.0766
377.	0.3501	3354.	0.0791
378.	0.3467	3355.	0.0786
379.	0.3507	3356.	0.0775
380.	0.3475	3357.	0.0776
381.	0.3461	3358.	0.0765
382.	0.3449	3359.	0.0777
383.	0.3462	3360.	0.0797
384.	0.3493	3361.	0.078
385.	0.3454	3362.	0.0786
386.	0.3487	3363.	0.0794
387.	0.3443	3364.	0.08
388.	0.3455	3365.	0.0786
389.	0.3434	3366.	0.0748
390.	0.3444	3367.	0.0775
391.	0.3425	3368.	0.0762
392.	0.3446	3369.	0.0758
393.	0.3415	3370.	0.0775
394.	0.3405	3371.	0.0764
395.	0.3413	3372.	0.0769
396.	0.3444	3373.	0.0773
397.	0.3427	3374.	0.0774
398.	0.3401	3375.	0.0758
399.	0.3435	3376.	0.0772
400.	0.3389	3377.	0.077
401.	0.3413	3378.	0.0774
402.	0.3411	3379.	0.0735
403.	0.3421	3380.	0.077
404.	0.3408	3381.	0.0767
405.	0.3401	3382.	0.0775
406.	0.34	3383.	0.079
407.	0.3381	3384.	0.0788
408.	0.3387	3385.	0.0769
409.	0.3393	3386.	0.0764
410.	0.3382	3387.	0.0769
411.	0.3363	3388.	0.0736
412.	0.3382	3389.	0.0736
413.	0.3377	3390.	0.0753
414.	0.3378	3391.	0.0766
415.	0.338	3392.	0.0754
416.	0.3358	3393.	0.0735
417.	0.3327	3394.	0.0771
418.	0.3406	3395.	0.0772
419.	0.3375	3396.	0.076
420.	0.3384	3397.	0.0765
421.	0.3359	3398.	0.0727
422.	0.3334	3399.	0.076
423.	0.3366	3400.	0.0762
424.	0.3322	3401.	0.0734
425.	0.3389	3402.	0.0773
426.	0.3339	3403.	0.0756

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
427.	0.3344	3404.	0.0761
428.	0.3341	3405.	0.0783
429.	0.3336	3406.	0.0776
430.	0.3351	3407.	0.0779
431.	0.3332	3408.	0.0753
432.	0.3327	3409.	0.0768
433.	0.3332	3410.	0.0755
434.	0.3309	3411.	0.077
435.	0.3322	3412.	0.0749
436.	0.3321	3413.	0.076
437.	0.3348	3414.	0.0741
438.	0.3332	3415.	0.0725
439.	0.3306	3416.	0.0725
440.	0.3302	3417.	0.0759
441.	0.3323	3418.	0.0736
442.	0.331	3419.	0.0764
443.	0.3289	3420.	0.0741
444.	0.3301	3421.	0.075
445.	0.3305	3422.	0.0765
446.	0.3299	3423.	0.0741
447.	0.3287	3424.	0.0767
448.	0.3284	3425.	0.0772
449.	0.3254	3426.	0.0728
450.	0.3285	3427.	0.0726
451.	0.3315	3428.	0.0734
452.	0.3304	3429.	0.0755
453.	0.3285	3430.	0.0736
454.	0.3285	3431.	0.0745
455.	0.3291	3432.	0.0715
456.	0.3257	3433.	0.0746
457.	0.3267	3434.	0.07
458.	0.3297	3435.	0.0748
459.	0.3294	3436.	0.0735
460.	0.3283	3437.	0.0772
461.	0.3265	3438.	0.077
462.	0.3237	3439.	0.0736
463.	0.3229	3440.	0.072
464.	0.3248	3441.	0.0738
465.	0.3244	3442.	0.0742
466.	0.3267	3443.	0.0727
467.	0.3269	3444.	0.0741
468.	0.326	3445.	0.0736
469.	0.3235	3446.	0.0737
470.	0.3251	3447.	0.0704
471.	0.3237	3448.	0.0733
472.	0.3206	3449.	0.0741
473.	0.3263	3450.	0.0739
474.	0.323	3451.	0.0738
475.	0.321	3452.	0.0738
476.	0.3249	3453.	0.0731
477.	0.3198	3454.	0.0735
478.	0.3196	3455.	0.0731
479.	0.3194	3456.	0.0736
480.	0.3229	3457.	0.0729
481.	0.3203	3458.	0.0755
482.	0.3228	3459.	0.0763
483.	0.3209	3460.	0.0728
484.	0.321	3461.	0.0734
485.	0.3216	3462.	0.0762
486.	0.3241	3463.	0.0731
487.	0.3205	3464.	0.0738
488.	0.3195	3465.	0.0762
489.	0.3206	3466.	0.0737
490.	0.3177	3467.	0.0755
491.	0.3242	3468.	0.0724
492.	0.32	3469.	0.0736

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
493.	0.3195	3470.	0.0719
494.	0.3171	3471.	0.0747
495.	0.32	3472.	0.0717
496.	0.3186	3473.	0.075
497.	0.3207	3474.	0.0738
498.	0.3181	3475.	0.0734
499.	0.3187	3476.	0.0738
500.	0.3197	3477.	0.0737
501.	0.3148	3478.	0.0722
502.	0.3171	3479.	0.0714
503.	0.3177	3480.	0.0734
504.	0.3181	3481.	0.0726
505.	0.3154	3482.	0.0714
506.	0.3181	3483.	0.073
507.	0.3162	3484.	0.0755
508.	0.3167	3485.	0.0717
509.	0.3142	3486.	0.0731
510.	0.3185	3487.	0.0736
511.	0.3174	3488.	0.0726
512.	0.3146	3489.	0.0731
513.	0.3164	3490.	0.0753
514.	0.3143	3491.	0.0724
515.	0.3161	3492.	0.0753
516.	0.3139	3493.	0.0747
517.	0.3143	3494.	0.0755
518.	0.3145	3495.	0.0745
519.	0.3136	3496.	0.0745
520.	0.3129	3497.	0.0736
521.	0.3141	3498.	0.0705
522.	0.3152	3499.	0.075
523.	0.3121	3500.	0.0733
524.	0.3118	3501.	0.0716
525.	0.3122	3502.	0.0726
526.	0.3139	3503.	0.0712
527.	0.3103	3504.	0.0702
528.	0.3134	3505.	0.0731
529.	0.3128	3506.	0.0781
530.	0.3122	3507.	0.0738
531.	0.3118	3508.	0.0717
532.	0.3095	3509.	0.0761
533.	0.3125	3510.	0.0716
534.	0.3117	3511.	0.0753
535.	0.3117	3512.	0.0745
536.	0.3116	3513.	0.0688
537.	0.3119	3514.	0.0696
538.	0.3092	3515.	0.0713
539.	0.3064	3516.	0.0747
540.	0.3096	3517.	0.0741
541.	0.3098	3518.	0.0722
542.	0.3086	3519.	0.0757
543.	0.3094	3520.	0.0719
544.	0.306	3521.	0.072
545.	0.307	3522.	0.071
546.	0.3082	3523.	0.0732
547.	0.3055	3524.	0.0714
548.	0.3065	3525.	0.0702
549.	0.3082	3526.	0.0748
550.	0.3055	3527.	0.0702
551.	0.3059	3528.	0.0727
552.	0.3052	3529.	0.0711
553.	0.3061	3530.	0.0698
554.	0.305	3531.	0.0719
555.	0.307	3532.	0.0736
556.	0.3043	3533.	0.0684
557.	0.3042	3534.	0.0719
558.	0.3029	3535.	0.0727

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
559.	0.3048	3536.	0.071
560.	0.3048	3537.	0.073
561.	0.3029	3538.	0.0729
562.	0.3038	3539.	0.0706
563.	0.3013	3540.	0.0708
564.	0.3031	3541.	0.0724
565.	0.304	3542.	0.0705
566.	0.2994	3543.	0.0691
567.	0.3001	3544.	0.0673
568.	0.3007	3545.	0.0682
569.	0.3031	3546.	0.0686
570.	0.2984	3547.	0.0692
571.	0.3025	3548.	0.0704
572.	0.3031	3549.	0.0724
573.	0.3012	3550.	0.0719
574.	0.2988	3551.	0.072
575.	0.2984	3552.	0.071
576.	0.2976	3553.	0.0723
577.	0.2986	3554.	0.0698
578.	0.2965	3555.	0.0678
579.	0.2991	3556.	0.0723
580.	0.2995	3557.	0.0747
581.	0.2969	3558.	0.0674
582.	0.3002	3559.	0.0696
583.	0.3013	3560.	0.0726
584.	0.2993	3561.	0.0702
585.	0.3002	3562.	0.069
586.	0.3005	3563.	0.071
587.	0.2978	3564.	0.07
588.	0.299	3565.	0.0712
589.	0.2984	3566.	0.0709
590.	0.2972	3567.	0.0672
591.	0.2986	3568.	0.0698
592.	0.2978	3569.	0.0682
593.	0.2974	3570.	0.0683
594.	0.2955	3571.	0.072
595.	0.2946	3572.	0.0732
596.	0.2952	3573.	0.0721
597.	0.2938	3574.	0.0712
598.	0.2971	3575.	0.0732
599.	0.2956	3576.	0.0717
600.	0.2935	3577.	0.0712
601.	0.294	3578.	0.0688
602.	0.2962	3579.	0.0695
603.	0.2945	3580.	0.0736
604.	0.2949	3581.	0.0742
605.	0.295	3582.	0.0712
606.	0.2918	3583.	0.0686
607.	0.2916	3584.	0.0688
608.	0.2964	3585.	0.0705
609.	0.2947	3586.	0.0679
610.	0.2941	3587.	0.0698
611.	0.2937	3588.	0.0682
612.	0.2936	3589.	0.0676
613.	0.2945	3590.	0.0716
614.	0.2951	3591.	0.0726
615.	0.2938	3592.	0.0715
616.	0.2918	3593.	0.0725
617.	0.2908	3594.	0.0674
618.	0.2902	3595.	0.0695
619.	0.288	3596.	0.0693
620.	0.2875	3597.	0.0722
621.	0.2889	3598.	0.0714
622.	0.2914	3599.	0.0698
623.	0.2898	3600.	0.0702
624.	0.2912	3601.	0.0691

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
625.	0.2885	3602.	0.07
626.	0.2904	3603.	0.0665
627.	0.2892	3604.	0.0686
628.	0.289	3605.	0.0707
629.	0.2897	3606.	0.0688
630.	0.2908	3607.	0.0691
631.	0.2889	3608.	0.0712
632.	0.2844	3609.	0.0677
633.	0.2884	3610.	0.0692
634.	0.2868	3611.	0.0701
635.	0.2886	3612.	0.071
636.	0.285	3613.	0.0698
637.	0.2869	3614.	0.0697
638.	0.287	3615.	0.0695
639.	0.2877	3616.	0.0712
640.	0.2851	3617.	0.0681
641.	0.2873	3618.	0.0678
642.	0.2894	3619.	0.0697
643.	0.2875	3620.	0.07
644.	0.2906	3621.	0.0705
645.	0.2876	3622.	0.0666
646.	0.2864	3623.	0.071
647.	0.285	3624.	0.0691
648.	0.2851	3625.	0.0678
649.	0.2842	3626.	0.0685
650.	0.2873	3627.	0.0676
651.	0.2869	3628.	0.0677
652.	0.287	3629.	0.069
653.	0.2822	3630.	0.0687
654.	0.2875	3631.	0.0689
655.	0.286	3632.	0.0679
656.	0.2821	3633.	0.0683
657.	0.2807	3634.	0.0714
658.	0.2828	3635.	0.0669
659.	0.284	3636.	0.0681
660.	0.2838	3637.	0.0697
661.	0.2828	3638.	0.0714
662.	0.2806	3639.	0.065
663.	0.2835	3640.	0.0687
664.	0.2811	3641.	0.0662
665.	0.2808	3642.	0.0685
666.	0.2813	3643.	0.0714
667.	0.2815	3644.	0.069
668.	0.2806	3645.	0.0696
669.	0.2806	3646.	0.0686
670.	0.2812	3647.	0.0674
671.	0.2843	3648.	0.0693
672.	0.2774	3649.	0.0729
673.	0.2834	3650.	0.0693
674.	0.2798	3651.	0.0705
675.	0.2833	3652.	0.069
676.	0.279	3653.	0.0667
677.	0.2787	3654.	0.0673
678.	0.278	3655.	0.068
679.	0.2795	3656.	0.0671
680.	0.2794	3657.	0.0683
681.	0.2805	3658.	0.0669
682.	0.2827	3659.	0.07
683.	0.2814	3660.	0.0664
684.	0.278	3661.	0.0669
685.	0.278	3662.	0.0654
686.	0.2781	3663.	0.0689
687.	0.2785	3664.	0.0682
688.	0.2779	3665.	0.0669
689.	0.2783	3666.	0.0693
690.	0.2777	3667.	0.0651

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
691.	0.2778	3668.	0.0699
692.	0.2759	3669.	0.0698
693.	0.2807	3670.	0.0676
694.	0.2775	3671.	0.0657
695.	0.2802	3672.	0.0692
696.	0.2762	3673.	0.0702
697.	0.2772	3674.	0.0702
698.	0.2768	3675.	0.0665
699.	0.276	3676.	0.069
700.	0.274	3677.	0.0686
701.	0.2784	3678.	0.0693
702.	0.2773	3679.	0.0681
703.	0.2738	3680.	0.0682
704.	0.275	3681.	0.0687
705.	0.2766	3682.	0.0656
706.	0.2752	3683.	0.0641
707.	0.2754	3684.	0.0681
708.	0.2771	3685.	0.0689
709.	0.273	3686.	0.0671
710.	0.2742	3687.	0.0662
711.	0.2757	3688.	0.0663
712.	0.278	3689.	0.0698
713.	0.2692	3690.	0.0678
714.	0.2749	3691.	0.0702
715.	0.2692	3692.	0.0695
716.	0.2744	3693.	0.0662
717.	0.269	3694.	0.0669
718.	0.2719	3695.	0.0697
719.	0.2721	3696.	0.0668
720.	0.2728	3697.	0.0686
721.	0.2742	3698.	0.0686
722.	0.2722	3699.	0.0656
723.	0.272	3700.	0.0685
724.	0.2704	3701.	0.0678
725.	0.2711	3702.	0.0667
726.	0.2694	3703.	0.0688
727.	0.2704	3704.	0.067
728.	0.272	3705.	0.0669
729.	0.2712	3706.	0.0658
730.	0.2711	3707.	0.0688
731.	0.2718	3708.	0.0686
732.	0.272	3709.	0.0661
733.	0.2713	3710.	0.0693
734.	0.2674	3711.	0.0652
735.	0.2709	3712.	0.0693
736.	0.2692	3713.	0.0657
737.	0.2723	3714.	0.0653
738.	0.2687	3715.	0.065
739.	0.2694	3716.	0.066
740.	0.2711	3717.	0.0693
741.	0.2734	3718.	0.0677
742.	0.2677	3719.	0.0667
743.	0.268	3720.	0.0664
744.	0.2716	3721.	0.0665
745.	0.2685	3722.	0.0674
746.	0.2678	3723.	0.07
747.	0.2687	3724.	0.0671
748.	0.2662	3725.	0.0657
749.	0.268	3726.	0.0657
750.	0.2711	3727.	0.0645
751.	0.2699	3728.	0.0658
752.	0.2655	3729.	0.0635
753.	0.268	3730.	0.0695
754.	0.2658	3731.	0.0672
755.	0.2683	3732.	0.0649
756.	0.2658	3733.	0.0664

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
757.	0.2683	3734.	0.0637
758.	0.2656	3735.	0.0682
759.	0.2673	3736.	0.0698
760.	0.2662	3737.	0.0681
761.	0.2642	3738.	0.0683
762.	0.2625	3739.	0.0646
763.	0.2668	3740.	0.0691
764.	0.2675	3741.	0.0648
765.	0.2675	3742.	0.0638
766.	0.2662	3743.	0.0647
767.	0.2628	3744.	0.065
768.	0.2666	3745.	0.0649
769.	0.2649	3746.	0.0657
770.	0.2639	3747.	0.066
771.	0.2657	3748.	0.064
772.	0.2665	3749.	0.0692
773.	0.2634	3750.	0.0678
774.	0.263	3751.	0.0678
775.	0.2634	3752.	0.0648
776.	0.264	3753.	0.0658
777.	0.2662	3754.	0.0674
778.	0.2654	3755.	0.0692
779.	0.2623	3756.	0.0647
780.	0.2634	3757.	0.0654
781.	0.2623	3758.	0.066
782.	0.2646	3759.	0.0669
783.	0.2639	3760.	0.0633
784.	0.2651	3761.	0.065
785.	0.2606	3762.	0.0655
786.	0.2627	3763.	0.0657
787.	0.2587	3764.	0.065
788.	0.2619	3765.	0.0628
789.	0.2585	3766.	0.0647
790.	0.261	3767.	0.0673
791.	0.261	3768.	0.0636
792.	0.2582	3769.	0.0635
793.	0.2625	3770.	0.0663
794.	0.2596	3771.	0.0666
795.	0.2567	3772.	0.0659
796.	0.2595	3773.	0.0671
797.	0.2586	3774.	0.0655
798.	0.2589	3775.	0.0646
799.	0.2588	3776.	0.0642
800.	0.2584	3777.	0.0651
801.	0.2605	3778.	0.0628
802.	0.2584	3779.	0.0645
803.	0.2614	3780.	0.0662
804.	0.2596	3781.	0.064
805.	0.2549	3782.	0.0643
806.	0.2551	3783.	0.0624
807.	0.2579	3784.	0.066
808.	0.2572	3785.	0.0638
809.	0.2565	3786.	0.0641
810.	0.2579	3787.	0.0652
811.	0.2561	3788.	0.065
812.	0.2602	3789.	0.0627
813.	0.2558	3790.	0.0627
814.	0.256	3791.	0.0667
815.	0.2556	3792.	0.0626
816.	0.2559	3793.	0.0645
817.	0.2563	3794.	0.0635
818.	0.2538	3795.	0.0638
819.	0.2548	3796.	0.0625
820.	0.2555	3797.	0.0676
821.	0.2575	3798.	0.0638
822.	0.2529	3799.	0.0632

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
823.	0.2565	3800.	0.0654
824.	0.2525	3801.	0.064
825.	0.2551	3802.	0.0678
826.	0.2537	3803.	0.0648
827.	0.2544	3804.	0.0635
828.	0.2548	3805.	0.0674
829.	0.2527	3806.	0.066
830.	0.255	3807.	0.0609
831.	0.2551	3808.	0.0616
832.	0.2563	3809.	0.0643
833.	0.2542	3810.	0.0613
834.	0.2534	3811.	0.0606
835.	0.255	3812.	0.0654
836.	0.2556	3813.	0.0645
837.	0.2532	3814.	0.0609
838.	0.2516	3815.	0.0632
839.	0.2542	3816.	0.0668
840.	0.2515	3817.	0.0633
841.	0.2517	3818.	0.0627
842.	0.2529	3819.	0.0658
843.	0.2518	3820.	0.0625
844.	0.2506	3821.	0.0628
845.	0.2508	3822.	0.0644
846.	0.2492	3823.	0.0623
847.	0.2493	3824.	0.0664
848.	0.2503	3825.	0.0641
849.	0.2501	3826.	0.0627
850.	0.2527	3827.	0.0632
851.	0.2512	3828.	0.0641
852.	0.2479	3829.	0.0655
853.	0.2494	3830.	0.0619
854.	0.2501	3831.	0.0678
855.	0.2508	3832.	0.0633
856.	0.2471	3833.	0.0643
857.	0.2484	3834.	0.0652
858.	0.2491	3835.	0.0627
859.	0.2479	3836.	0.0654
860.	0.2496	3837.	0.0624
861.	0.2479	3838.	0.0641
862.	0.251	3839.	0.0654
863.	0.2453	3840.	0.0646
864.	0.2494	3841.	0.0618
865.	0.2455	3842.	0.0613
866.	0.2496	3843.	0.0652
867.	0.2482	3844.	0.0657
868.	0.2475	3845.	0.0628
869.	0.2468	3846.	0.0617
870.	0.2466	3847.	0.0657
871.	0.2495	3848.	0.0614
872.	0.2468	3849.	0.0686
873.	0.2489	3850.	0.062
874.	0.2469	3851.	0.0616
875.	0.2467	3852.	0.0624
876.	0.246	3853.	0.062
877.	0.2466	3854.	0.0649
878.	0.2458	3855.	0.0595
879.	0.2482	3856.	0.0622
880.	0.247	3857.	0.0611
881.	0.2467	3858.	0.0645
882.	0.2453	3859.	0.0638
883.	0.2441	3860.	0.065
884.	0.2434	3861.	0.063
885.	0.2424	3862.	0.065
886.	0.2449	3863.	0.0644
887.	0.2445	3864.	0.0583
888.	0.2439	3865.	0.0655

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
889.	0.2449	3866.	0.0648
890.	0.2458	3867.	0.0612
891.	0.2443	3868.	0.062
892.	0.2416	3869.	0.0619
893.	0.2436	3870.	0.0617
894.	0.2434	3871.	0.0613
895.	0.2417	3872.	0.0635
896.	0.2421	3873.	0.0615
897.	0.2403	3874.	0.0608
898.	0.2423	3875.	0.0626
899.	0.2416	3876.	0.0627
900.	0.2417	3877.	0.0635
901.	0.2427	3878.	0.0635
902.	0.2396	3879.	0.0636
903.	0.2374	3880.	0.0601
904.	0.2403	3881.	0.061
905.	0.2428	3882.	0.0597
906.	0.2422	3883.	0.0643
907.	0.2406	3884.	0.0626
908.	0.24	3885.	0.059
909.	0.2388	3886.	0.0615
910.	0.2374	3887.	0.0634
911.	0.243	3888.	0.0594
912.	0.2389	3889.	0.0589
913.	0.2402	3890.	0.0644
914.	0.2391	3891.	0.059
915.	0.239	3892.	0.0629
916.	0.241	3893.	0.0606
917.	0.241	3894.	0.0633
918.	0.2394	3895.	0.0613
919.	0.2398	3896.	0.0572
920.	0.2363	3897.	0.0633
921.	0.2415	3898.	0.0626
922.	0.2408	3899.	0.0618
923.	0.2405	3900.	0.0653
924.	0.2386	3901.	0.0627
925.	0.2355	3902.	0.0613
926.	0.2381	3903.	0.0612
927.	0.2401	3904.	0.0607
928.	0.2377	3905.	0.0616
929.	0.2369	3906.	0.0608
930.	0.2377	3907.	0.0609
931.	0.2346	3908.	0.0604
932.	0.2355	3909.	0.0615
933.	0.2382	3910.	0.0652
934.	0.2397	3911.	0.0641
935.	0.2357	3912.	0.0619
936.	0.2371	3913.	0.0613
937.	0.2396	3914.	0.0624
938.	0.2374	3915.	0.0604
939.	0.2367	3916.	0.0597
940.	0.2376	3917.	0.0578
941.	0.2406	3918.	0.0588
942.	0.2365	3919.	0.0587
943.	0.2372	3920.	0.059
944.	0.234	3921.	0.0607
945.	0.2366	3922.	0.0603
946.	0.2345	3923.	0.0604
947.	0.2329	3924.	0.0603
948.	0.2342	3925.	0.0616
949.	0.2338	3926.	0.0638
950.	0.2328	3927.	0.0643
951.	0.2331	3928.	0.0622
952.	0.236	3929.	0.0626
953.	0.2336	3930.	0.0626
954.	0.2346	3931.	0.0602

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
955.	0.235	3932.	0.0612
956.	0.2326	3933.	0.0624
957.	0.2355	3934.	0.0619
958.	0.2328	3935.	0.0622
959.	0.2336	3936.	0.0632
960.	0.2345	3937.	0.06
961.	0.2312	3938.	0.0616
962.	0.2324	3939.	0.0611
963.	0.2321	3940.	0.0612
964.	0.2324	3941.	0.0617
965.	0.234	3942.	0.0644
966.	0.2337	3943.	0.0624
967.	0.2328	3944.	0.0622
968.	0.2293	3945.	0.0614
969.	0.2366	3946.	0.0623
970.	0.235	3947.	0.0633
971.	0.2319	3948.	0.0593
972.	0.2353	3949.	0.0602
973.	0.23	3950.	0.062
974.	0.2288	3951.	0.0609
975.	0.2319	3952.	0.0603
976.	0.2341	3953.	0.0635
977.	0.2337	3954.	0.0628
978.	0.2326	3955.	0.0626
979.	0.2328	3956.	0.062
980.	0.2285	3957.	0.0604
981.	0.2301	3958.	0.0595
982.	0.227	3959.	0.0601
983.	0.2331	3960.	0.0633
984.	0.233	3961.	0.0601
985.	0.2312	3962.	0.0628
986.	0.2294	3963.	0.0601
987.	0.23	3964.	0.0616
988.	0.2286	3965.	0.0607
989.	0.2312	3966.	0.0588
990.	0.231	3967.	0.0617
991.	0.2307	3968.	0.0614
992.	0.2276	3969.	0.0621
993.	0.2264	3970.	0.0588
994.	0.2304	3971.	0.0633
995.	0.2305	3972.	0.0616
996.	0.2279	3973.	0.0596
997.	0.2294	3974.	0.0621
998.	0.228	3975.	0.06
999.	0.2272	3976.	0.0581
1000.	0.2281	3977.	0.0606
1001.	0.2271	3978.	0.0584
1002.	0.2254	3979.	0.0562
1003.	0.2279	3980.	0.0645
1004.	0.2265	3981.	0.0602
1005.	0.2258	3982.	0.0597
1006.	0.2311	3983.	0.0588
1007.	0.2271	3984.	0.0601
1008.	0.2226	3985.	0.06
1009.	0.225	3986.	0.0599
1010.	0.2279	3987.	0.059
1011.	0.2262	3988.	0.0603
1012.	0.2257	3989.	0.0576
1013.	0.2265	3990.	0.0585
1014.	0.2288	3991.	0.058
1015.	0.2271	3992.	0.0571
1016.	0.228	3993.	0.0566
1017.	0.2257	3994.	0.0623
1018.	0.2269	3995.	0.0595
1019.	0.2262	3996.	0.0598
1020.	0.2262	3997.	0.0575

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1021.	0.2262	3998.	0.0578
1022.	0.228	3999.	0.0595
1023.	0.2239	4000.	0.0593
1024.	0.2231	4001.	0.0617
1025.	0.225	4002.	0.0634
1026.	0.2207	4003.	0.0606
1027.	0.2271	4004.	0.0604
1028.	0.2219	4005.	0.0631
1029.	0.2238	4006.	0.0618
1030.	0.2262	4007.	0.0583
1031.	0.2241	4008.	0.0611
1032.	0.2246	4009.	0.0626
1033.	0.2249	4010.	0.0617
1034.	0.223	4011.	0.0564
1035.	0.2221	4012.	0.06
1036.	0.2242	4013.	0.0583
1037.	0.2239	4014.	0.0571
1038.	0.2231	4015.	0.0577
1039.	0.2246	4016.	0.0583
1040.	0.2232	4017.	0.0559
1041.	0.2226	4018.	0.057
1042.	0.2193	4019.	0.059
1043.	0.2235	4020.	0.0554
1044.	0.22	4021.	0.0547
1045.	0.2222	4022.	0.0611
1046.	0.2203	4023.	0.0538
1047.	0.2185	4024.	0.054
1048.	0.2214	4025.	0.0562
1049.	0.2199	4026.	0.0532
1050.	0.2192	4027.	0.0509
1051.	0.22	4028.	0.0527
1052.	0.2202	4029.	0.0587
1053.	0.2224	4030.	0.054
1054.	0.2226	4031.	0.0581
1055.	0.2228	4032.	0.0572
1056.	0.2209	4033.	0.06
1057.	0.2211	4034.	0.0592
1058.	0.2204	4035.	0.0592
1059.	0.2195	4036.	0.0581
1060.	0.2192	4037.	0.0566
1061.	0.2193	4038.	0.0574
1062.	0.218	4039.	0.0566
1063.	0.2211	4040.	0.0566
1064.	0.2202	4041.	0.0593
1065.	0.22	4042.	0.0568
1066.	0.2193	4043.	0.0576
1067.	0.217	4044.	0.0585
1068.	0.218	4045.	0.0578
1069.	0.2181	4046.	0.0582
1070.	0.2196	4047.	0.0557
1071.	0.2204	4048.	0.0584
1072.	0.2185	4049.	0.0545
1073.	0.2182	4050.	0.0563
1074.	0.2179	4051.	0.0586
1075.	0.219	4052.	0.0582
1076.	0.2202	4053.	0.0591
1077.	0.2189	4054.	0.057
1078.	0.2151	4055.	0.0554
1079.	0.2162	4056.	0.0566
1080.	0.2166	4057.	0.0595
1081.	0.2159	4058.	0.0585
1082.	0.2197	4059.	0.0542
1083.	0.2125	4060.	0.0524
1084.	0.2176	4061.	0.0562
1085.	0.2171	4062.	0.0554
1086.	0.2167	4063.	0.0532

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1087.	0.2165	4064.	0.0548
1088.	0.2187	4065.	0.0552
1089.	0.2152	4066.	0.0554
1090.	0.2179	4067.	0.0582
1091.	0.2159	4068.	0.0545
1092.	0.2157	4069.	0.0581
1093.	0.2166	4070.	0.0552
1094.	0.2121	4071.	0.0578
1095.	0.217	4072.	0.0526
1096.	0.2152	4073.	0.0556
1097.	0.2166	4074.	0.0548
1098.	0.2127	4075.	0.0542
1099.	0.213	4076.	0.0523
1100.	0.2143	4077.	0.0531
1101.	0.2123	4078.	0.0523
1102.	0.2142	4079.	0.055
1103.	0.2146	4080.	0.0535
1104.	0.2126	4081.	0.0549
1105.	0.2152	4082.	0.0538
1106.	0.2151	4083.	0.0583
1107.	0.2127	4084.	0.0559
1108.	0.2142	4085.	0.0567
1109.	0.2135	4086.	0.056
1110.	0.2131	4087.	0.0554
1111.	0.2133	4088.	0.0542
1112.	0.2135	4089.	0.0562
1113.	0.2123	4090.	0.0535
1114.	0.2135	4091.	0.0546
1115.	0.2126	4092.	0.0498
1116.	0.213	4093.	0.0536
1117.	0.2133	4094.	0.0579
1118.	0.2129	4095.	0.0536
1119.	0.2119	4096.	0.0544
1120.	0.2101	4097.	0.0571
1121.	0.2115	4098.	0.0523
1122.	0.2133	4099.	0.0516
1123.	0.2119	4100.	0.0542
1124.	0.2095	4101.	0.0562
1125.	0.2114	4102.	0.0509
1126.	0.2128	4103.	0.0528
1127.	0.2083	4104.	0.0516
1128.	0.2112	4105.	0.0549
1129.	0.2126	4106.	0.0526
1130.	0.2114	4107.	0.0564
1131.	0.2066	4108.	0.0551
1132.	0.2106	4109.	0.0542
1133.	0.2112	4110.	0.0523
1134.	0.2066	4111.	0.0547
1135.	0.2117	4112.	0.0526
1136.	0.2106	4113.	0.0511
1137.	0.2127	4114.	0.0504
1138.	0.2131	4115.	0.0511
1139.	0.2099	4116.	0.0527
1140.	0.2059	4117.	0.0538
1141.	0.2091	4118.	0.0523
1142.	0.2096	4119.	0.0551
1143.	0.2104	4120.	0.0542
1144.	0.2092	4121.	0.0526
1145.	0.2095	4122.	0.0586
1146.	0.2112	4123.	0.0575
1147.	0.2087	4124.	0.0523
1148.	0.2042	4125.	0.0553
1149.	0.2111	4126.	0.0524
1150.	0.207	4127.	0.0538
1151.	0.2058	4128.	0.0512
1152.	0.2088	4129.	0.0535

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1153.	0.2086	4130.	0.054
1154.	0.2085	4131.	0.0523
1155.	0.2087	4132.	0.0547
1156.	0.2063	4133.	0.0543
1157.	0.2081	4134.	0.0535
1158.	0.2054	4135.	0.053
1159.	0.205	4136.	0.052
1160.	0.2091	4137.	0.0519
1161.	0.2085	4138.	0.0521
1162.	0.2093	4139.	0.0491
1163.	0.209	4140.	0.0523
1164.	0.2048	4141.	0.0521
1165.	0.2052	4142.	0.0514
1166.	0.2061	4143.	0.0506
1167.	0.206	4144.	0.0499
1168.	0.2037	4145.	0.0514
1169.	0.2023	4146.	0.051
1170.	0.2052	4147.	0.0516
1171.	0.2061	4148.	0.051
1172.	0.2034	4149.	0.0505
1173.	0.2041	4150.	0.0529
1174.	0.203	4151.	0.0504
1175.	0.2085	4152.	0.0551
1176.	0.203	4153.	0.0511
1177.	0.2047	4154.	0.0552
1178.	0.2052	4155.	0.0528
1179.	0.2072	4156.	0.0519
1180.	0.2048	4157.	0.0518
1181.	0.2039	4158.	0.0544
1182.	0.204	4159.	0.0512
1183.	0.2066	4160.	0.0505
1184.	0.2031	4161.	0.0511
1185.	0.2035	4162.	0.0509
1186.	0.2038	4163.	0.05
1187.	0.2024	4164.	0.0534
1188.	0.2024	4165.	0.0524
1189.	0.2021	4166.	0.0524
1190.	0.2017	4167.	0.0523
1191.	0.2012	4168.	0.0539
1192.	0.2041	4169.	0.054
1193.	0.2039	4170.	0.0521
1194.	0.2003	4171.	0.0499
1195.	0.1999	4172.	0.0515
1196.	0.2013	4173.	0.0525
1197.	0.1979	4174.	0.0509
1198.	0.2014	4175.	0.0523
1199.	0.2004	4176.	0.0516
1200.	0.2037	4177.	0.0534
1201.	0.2016	4178.	0.0508
1202.	0.2024	4179.	0.0486
1203.	0.2046	4180.	0.0471
1204.	0.198	4181.	0.0503
1205.	0.2007	4182.	0.0522
1206.	0.2005	4183.	0.0553
1207.	0.2042	4184.	0.0504
1208.	0.2005	4185.	0.0537
1209.	0.2032	4186.	0.0491
1210.	0.2017	4187.	0.0529
1211.	0.2019	4188.	0.0499
1212.	0.1981	4189.	0.0494
1213.	0.202	4190.	0.0485
1214.	0.2008	4191.	0.0535
1215.	0.2006	4192.	0.0541
1216.	0.2005	4193.	0.0535
1217.	0.2009	4194.	0.0496
1218.	0.1987	4195.	0.0495

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1219.	0.1998	4196.	0.0492
1220.	0.2013	4197.	0.0504
1221.	0.2037	4198.	0.0499
1222.	0.2026	4199.	0.0492
1223.	0.2014	4200.	0.0521
1224.	0.1982	4201.	0.0502
1225.	0.2015	4202.	0.0521
1226.	0.1987	4203.	0.0481
1227.	0.1987	4204.	0.0498
1228.	0.1999	4205.	0.0495
1229.	0.2006	4206.	0.0498
1230.	0.2006	4207.	0.0473
1231.	0.199	4208.	0.0506
1232.	0.1987	4209.	0.0502
1233.	0.2023	4210.	0.0471
1234.	0.198	4211.	0.0514
1235.	0.1982	4212.	0.0485
1236.	0.1982	4213.	0.0483
1237.	0.1963	4214.	0.0515
1238.	0.2014	4215.	0.0532
1239.	0.1961	4216.	0.0486
1240.	0.1969	4217.	0.0516
1241.	0.1995	4218.	0.0517
1242.	0.1982	4219.	0.049
1243.	0.1979	4220.	0.0511
1244.	0.1944	4221.	0.0515
1245.	0.1993	4222.	0.0499
1246.	0.1968	4223.	0.048
1247.	0.1964	4224.	0.0485
1248.	0.196	4225.	0.0514
1249.	0.1999	4226.	0.0506
1250.	0.1952	4227.	0.0483
1251.	0.1933	4228.	0.0511
1252.	0.197	4229.	0.0509
1253.	0.1962	4230.	0.0484
1254.	0.197	4231.	0.0519
1255.	0.198	4232.	0.0516
1256.	0.1973	4233.	0.0478
1257.	0.1961	4234.	0.0485
1258.	0.197	4235.	0.0505
1259.	0.1945	4236.	0.0493
1260.	0.1932	4237.	0.0514
1261.	0.1968	4238.	0.0478
1262.	0.198	4239.	0.051
1263.	0.1951	4240.	0.05
1264.	0.1943	4241.	0.0476
1265.	0.1942	4242.	0.049
1266.	0.1945	4243.	0.0478
1267.	0.1973	4244.	0.0476
1268.	0.196	4245.	0.0503
1269.	0.1973	4246.	0.0497
1270.	0.189	4247.	0.0471
1271.	0.1924	4248.	0.0486
1272.	0.1924	4249.	0.0504
1273.	0.1927	4250.	0.0471
1274.	0.1939	4251.	0.0519
1275.	0.1917	4252.	0.0496
1276.	0.1888	4253.	0.0468
1277.	0.1909	4254.	0.0483
1278.	0.1932	4255.	0.0495
1279.	0.1926	4256.	0.0487
1280.	0.1896	4257.	0.0483
1281.	0.1934	4258.	0.0507
1282.	0.1922	4259.	0.0483
1283.	0.1901	4260.	0.0504
1284.	0.1912	4261.	0.0483

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1285.	0.1925	4262.	0.0494
1286.	0.1916	4263.	0.048
1287.	0.1932	4264.	0.0492
1288.	0.1942	4265.	0.0483
1289.	0.1913	4266.	0.046
1290.	0.1919	4267.	0.0474
1291.	0.192	4268.	0.0469
1292.	0.1928	4269.	0.0473
1293.	0.1904	4270.	0.0503
1294.	0.1895	4271.	0.0459
1295.	0.1886	4272.	0.0456
1296.	0.1923	4273.	0.0487
1297.	0.1905	4274.	0.0461
1298.	0.1918	4275.	0.0483
1299.	0.1885	4276.	0.0503
1300.	0.1924	4277.	0.0495
1301.	0.1892	4278.	0.0464
1302.	0.1902	4279.	0.0433
1303.	0.1895	4280.	0.0495
1304.	0.1904	4281.	0.0484
1305.	0.1891	4282.	0.0476
1306.	0.19	4283.	0.0476
1307.	0.188	4284.	0.0439
1308.	0.1873	4285.	0.05
1309.	0.1863	4286.	0.0471
1310.	0.1868	4287.	0.0455
1311.	0.1889	4288.	0.048
1312.	0.1876	4289.	0.0486
1313.	0.1914	4290.	0.0488
1314.	0.19	4291.	0.0466
1315.	0.1904	4292.	0.0461
1316.	0.188	4293.	0.0468
1317.	0.1887	4294.	0.0468
1318.	0.1899	4295.	0.0507
1319.	0.1899	4296.	0.0485
1320.	0.1882	4297.	0.0473
1321.	0.1887	4298.	0.0466
1322.	0.1877	4299.	0.0473
1323.	0.187	4300.	0.0466
1324.	0.1856	4301.	0.0451
1325.	0.1868	4302.	0.0466
1326.	0.1896	4303.	0.048
1327.	0.1858	4304.	0.0483
1328.	0.1874	4305.	0.0459
1329.	0.1873	4306.	0.0461
1330.	0.1899	4307.	0.0471
1331.	0.1889	4308.	0.0475
1332.	0.1872	4309.	0.0482
1333.	0.1882	4310.	0.048
1334.	0.1896	4311.	0.0492
1335.	0.1883	4312.	0.0471
1336.	0.188	4313.	0.0461
1337.	0.1876	4314.	0.0481
1338.	0.1868	4315.	0.0479
1339.	0.1858	4316.	0.0462
1340.	0.1857	4317.	0.0476
1341.	0.1908	4318.	0.0437
1342.	0.1835	4319.	0.0488
1343.	0.1884	4320.	0.0454
1344.	0.1858	4321.	0.046
1345.	0.1838	4322.	0.0483
1346.	0.1825	4323.	0.0467
1347.	0.1839	4324.	0.0496
1348.	0.1868	4325.	0.0452
1349.	0.187	4326.	0.0451
1350.	0.1839	4327.	0.0452

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1351.	0.1822	4328.	0.0459
1352.	0.1825	4329.	0.0447
1353.	0.1825	4330.	0.0483
1354.	0.1818	4331.	0.0512
1355.	0.1852	4332.	0.0462
1356.	0.1824	4333.	0.0476
1357.	0.1819	4334.	0.0459
1358.	0.1827	4335.	0.0468
1359.	0.1816	4336.	0.0491
1360.	0.1832	4337.	0.0468
1361.	0.1829	4338.	0.0466
1362.	0.1839	4339.	0.0461
1363.	0.18	4340.	0.0471
1364.	0.1832	4341.	0.0458
1365.	0.1796	4342.	0.0485
1366.	0.1828	4343.	0.0461
1367.	0.1834	4344.	0.0463
1368.	0.1839	4345.	0.0459
1369.	0.1808	4346.	0.0483
1370.	0.1812	4347.	0.0433
1371.	0.1828	4348.	0.0468
1372.	0.1817	4349.	0.0462
1373.	0.1822	4350.	0.0471
1374.	0.1789	4351.	0.0442
1375.	0.1827	4352.	0.0497
1376.	0.1775	4353.	0.0435
1377.	0.1798	4354.	0.0445
1378.	0.1832	4355.	0.0454
1379.	0.1827	4356.	0.0444
1380.	0.1782	4357.	0.0485
1381.	0.1789	4358.	0.0449
1382.	0.1803	4359.	0.048
1383.	0.1818	4360.	0.0485
1384.	0.1808	4361.	0.0473
1385.	0.1779	4362.	0.0447
1386.	0.1779	4363.	0.0455
1387.	0.1802	4364.	0.0473
1388.	0.1796	4365.	0.0471
1389.	0.1794	4366.	0.0478
1390.	0.18	4367.	0.0461
1391.	0.1776	4368.	0.0437
1392.	0.1772	4369.	0.0437
1393.	0.1815	4370.	0.0452
1394.	0.1789	4371.	0.0435
1395.	0.1763	4372.	0.0466
1396.	0.1751	4373.	0.0457
1397.	0.1806	4374.	0.0438
1398.	0.1757	4375.	0.0445
1399.	0.1841	4376.	0.0485
1400.	0.1792	4377.	0.0448
1401.	0.1803	4378.	0.0452
1402.	0.1786	4379.	0.0435
1403.	0.1803	4380.	0.0447
1404.	0.1767	4381.	0.0435
1405.	0.1806	4382.	0.0423
1406.	0.1776	4383.	0.0438
1407.	0.1777	4384.	0.0473
1408.	0.1764	4385.	0.0459
1409.	0.1803	4386.	0.0449
1410.	0.1786	4387.	0.0443
1411.	0.1782	4388.	0.0437
1412.	0.1797	4389.	0.0421
1413.	0.1817	4390.	0.0442
1414.	0.1777	4391.	0.0457
1415.	0.1789	4392.	0.0443
1416.	0.1794	4393.	0.0414

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1417.	0.177	4394.	0.0449
1418.	0.1772	4395.	0.0439
1419.	0.1769	4396.	0.0431
1420.	0.1743	4397.	0.0434
1421.	0.1788	4398.	0.0416
1422.	0.1774	4399.	0.0449
1423.	0.1789	4400.	0.0448
1424.	0.176	4401.	0.0435
1425.	0.1787	4402.	0.0421
1426.	0.1748	4403.	0.0456
1427.	0.1772	4404.	0.043
1428.	0.1799	4405.	0.0438
1429.	0.1737	4406.	0.0428
1430.	0.1762	4407.	0.0441
1431.	0.179	4408.	0.0455
1432.	0.176	4409.	0.0433
1433.	0.1774	4410.	0.0444
1434.	0.1737	4411.	0.0448
1435.	0.1788	4412.	0.0417
1436.	0.1774	4413.	0.0444
1437.	0.1782	4414.	0.0459
1438.	0.1737	4415.	0.0435
1439.	0.177	4416.	0.042
1440.	0.1752	4417.	0.0416
1441.	0.1752	4418.	0.0439
1442.	0.1765	4419.	0.0409
1443.	0.1788	4420.	0.0442
1444.	0.1779	4421.	0.0443
1445.	0.173	4422.	0.0415
1446.	0.1755	4423.	0.0415
1447.	0.1779	4424.	0.0411
1448.	0.1758	4425.	0.0432
1449.	0.1765	4426.	0.0418
1450.	0.1768	4427.	0.0408
1451.	0.1729	4428.	0.0474
1452.	0.177	4429.	0.0429
1453.	0.1748	4430.	0.043
1454.	0.1737	4431.	0.042
1455.	0.1739	4432.	0.042
1456.	0.1765	4433.	0.0428
1457.	0.1784	4434.	0.0449
1458.	0.1707	4435.	0.0437
1459.	0.1739	4436.	0.0443
1460.	0.1744	4437.	0.043
1461.	0.1747	4438.	0.0476
1462.	0.1743	4439.	0.043
1463.	0.1781	4440.	0.0407
1464.	0.175	4441.	0.0443
1465.	0.1709	4442.	0.0418
1466.	0.1719	4443.	0.0451
1467.	0.1735	4444.	0.0431
1468.	0.1723	4445.	0.0442
1469.	0.1753	4446.	0.0419
1470.	0.1725	4447.	0.0445
1471.	0.1734	4448.	0.0418
1472.	0.1719	4449.	0.0418
1473.	0.1719	4450.	0.041
1474.	0.1719	4451.	0.0411
1475.	0.1738	4452.	0.0426
1476.	0.1722	4453.	0.0396
1477.	0.1737	4454.	0.0409
1478.	0.1748	4455.	0.0436
1479.	0.1739	4456.	0.0409
1480.	0.1734	4457.	0.0425
1481.	0.1697	4458.	0.0402
1482.	0.1735	4459.	0.0404

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1483.	0.1745	4460.	0.0411
1484.	0.1727	4461.	0.041
1485.	0.1735	4462.	0.0428
1486.	0.1708	4463.	0.0416
1487.	0.1712	4464.	0.0432
1488.	0.1736	4465.	0.0406
1489.	0.172	4466.	0.0451
1490.	0.1733	4467.	0.0416
1491.	0.1689	4468.	0.043
1492.	0.1719	4469.	0.0416
1493.	0.1701	4470.	0.0375
1494.	0.1734	4471.	0.0428
1495.	0.1698	4472.	0.043
1496.	0.1731	4473.	0.0422
1497.	0.1685	4474.	0.0428
1498.	0.1714	4475.	0.0433
1499.	0.1732	4476.	0.0402
1500.	0.1709	4477.	0.0363
1501.	0.1717	4478.	0.043
1502.	0.172	4479.	0.0383
1503.	0.1716	4480.	0.0392
1504.	0.1714	4481.	0.0378
1505.	0.173	4482.	0.0406
1506.	0.1734	4483.	0.0375
1507.	0.171	4484.	0.039
1508.	0.1696	4485.	0.0395
1509.	0.1718	4486.	0.0399
1510.	0.1714	4487.	0.0386
1511.	0.1686	4488.	0.0402
1512.	0.1706	4489.	0.0413
1513.	0.1715	4490.	0.0397
1514.	0.1697	4491.	0.0408
1515.	0.1708	4492.	0.0381
1516.	0.1694	4493.	0.0404
1517.	0.1698	4494.	0.0414
1518.	0.1678	4495.	0.0412
1519.	0.1674	4496.	0.0412
1520.	0.168	4497.	0.0413
1521.	0.1665	4498.	0.0393
1522.	0.1699	4499.	0.0422
1523.	0.1699	4500.	0.0403
1524.	0.1717	4501.	0.0392
1525.	0.17	4502.	0.0404
1526.	0.1684	4503.	0.0404
1527.	0.168	4504.	0.0367
1528.	0.1686	4505.	0.0387
1529.	0.169	4506.	0.0381
1530.	0.1677	4507.	0.0391
1531.	0.1675	4508.	0.038
1532.	0.1682	4509.	0.0425
1533.	0.17	4510.	0.0358
1534.	0.169	4511.	0.039
1535.	0.1702	4512.	0.0399
1536.	0.1682	4513.	0.0361
1537.	0.167	4514.	0.0375
1538.	0.1665	4515.	0.0401
1539.	0.1668	4516.	0.0409
1540.	0.1709	4517.	0.0367
1541.	0.1691	4518.	0.0387
1542.	0.1666	4519.	0.0363
1543.	0.1687	4520.	0.0387
1544.	0.1692	4521.	0.0363
1545.	0.1656	4522.	0.0385
1546.	0.1681	4523.	0.0398
1547.	0.1673	4524.	0.0382
1548.	0.1675	4525.	0.0396

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1549.	0.1689	4526.	0.0389
1550.	0.1691	4527.	0.0382
1551.	0.1661	4528.	0.0382
1552.	0.1682	4529.	0.0383
1553.	0.1656	4530.	0.0366
1554.	0.1659	4531.	0.038
1555.	0.168	4532.	0.0386
1556.	0.166	4533.	0.0388
1557.	0.1675	4534.	0.0364
1558.	0.166	4535.	0.0349
1559.	0.1708	4536.	0.0394
1560.	0.1662	4537.	0.0397
1561.	0.1666	4538.	0.036
1562.	0.1689	4539.	0.0371
1563.	0.1654	4540.	0.0388
1564.	0.1646	4541.	0.0354
1565.	0.1641	4542.	0.0369
1566.	0.1675	4543.	0.0381
1567.	0.1672	4544.	0.0389
1568.	0.1662	4545.	0.0336
1569.	0.1634	4546.	0.0377
1570.	0.1648	4547.	0.0379
1571.	0.1648	4548.	0.0378
1572.	0.1661	4549.	0.0387
1573.	0.1636	4550.	0.0353
1574.	0.1625	4551.	0.0355
1575.	0.1658	4552.	0.0361
1576.	0.167	4553.	0.0344
1577.	0.1658	4554.	0.0396
1578.	0.1647	4555.	0.0349
1579.	0.1648	4556.	0.0368
1580.	0.1684	4557.	0.0365
1581.	0.1643	4558.	0.038
1582.	0.1664	4559.	0.0386
1583.	0.1644	4560.	0.0378
1584.	0.1635	4561.	0.0392
1585.	0.1636	4562.	0.0379
1586.	0.164	4563.	0.0338
1587.	0.1667	4564.	0.0389
1588.	0.1636	4565.	0.0363
1589.	0.1646	4566.	0.0336
1590.	0.1652	4567.	0.0387
1591.	0.1634	4568.	0.0345
1592.	0.1646	4569.	0.037
1593.	0.1651	4570.	0.0377
1594.	0.1648	4571.	0.0353
1595.	0.1644	4572.	0.0372
1596.	0.1665	4573.	0.0368
1597.	0.1629	4574.	0.0356
1598.	0.1641	4575.	0.0377
1599.	0.1639	4576.	0.0396
1600.	0.1643	4577.	0.0373
1601.	0.166	4578.	0.0368
1602.	0.1637	4579.	0.035
1603.	0.1625	4580.	0.0365
1604.	0.1608	4581.	0.0363
1605.	0.1661	4582.	0.0356
1606.	0.1632	4583.	0.0344
1607.	0.1643	4584.	0.0324
1608.	0.162	4585.	0.0342
1609.	0.1656	4586.	0.0352
1610.	0.1606	4587.	0.0359
1611.	0.1627	4588.	0.0387
1612.	0.1623	4589.	0.0372
1613.	0.163	4590.	0.0348
1614.	0.1657	4591.	0.0356

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1615.	0.1672	4592.	0.0348
1616.	0.1642	4593.	0.0337
1617.	0.1605	4594.	0.0355
1618.	0.1654	4595.	0.0374
1619.	0.1637	4596.	0.036
1620.	0.1634	4597.	0.0384
1621.	0.165	4598.	0.0381
1622.	0.1611	4599.	0.0351
1623.	0.1622	4600.	0.0351
1624.	0.1617	4601.	0.0351
1625.	0.1624	4602.	0.0361
1626.	0.1619	4603.	0.0364
1627.	0.1606	4604.	0.0382
1628.	0.1626	4605.	0.0371
1629.	0.1648	4606.	0.0354
1630.	0.1588	4607.	0.0385
1631.	0.1608	4608.	0.0359
1632.	0.1623	4609.	0.0364
1633.	0.1603	4610.	0.0361
1634.	0.158	4611.	0.0357
1635.	0.1591	4612.	0.0349
1636.	0.1588	4613.	0.0373
1637.	0.1629	4614.	0.0347
1638.	0.16	4615.	0.0375
1639.	0.1612	4616.	0.0383
1640.	0.1586	4617.	0.0369
1641.	0.1593	4618.	0.0339
1642.	0.161	4619.	0.0372
1643.	0.165	4620.	0.0328
1644.	0.1603	4621.	0.0353
1645.	0.1603	4622.	0.0351
1646.	0.1572	4623.	0.0345
1647.	0.162	4624.	0.0366
1648.	0.1582	4625.	0.0338
1649.	0.1623	4626.	0.0361
1650.	0.1602	4627.	0.0377
1651.	0.1595	4628.	0.0348
1652.	0.161	4629.	0.0364
1653.	0.1605	4630.	0.0346
1654.	0.1617	4631.	0.0377
1655.	0.1615	4632.	0.0369
1656.	0.1609	4633.	0.036
1657.	0.1591	4634.	0.0375
1658.	0.1579	4635.	0.0379
1659.	0.1562	4636.	0.0361
1660.	0.1598	4637.	0.0351
1661.	0.1581	4638.	0.0355
1662.	0.1574	4639.	0.0349
1663.	0.1588	4640.	0.0348
1664.	0.159	4641.	0.0339
1665.	0.1562	4642.	0.033
1666.	0.1586	4643.	0.0357
1667.	0.1619	4644.	0.0356
1668.	0.16	4645.	0.0354
1669.	0.1557	4646.	0.0339
1670.	0.1593	4647.	0.0372
1671.	0.1574	4648.	0.0348
1672.	0.1613	4649.	0.0339
1673.	0.1613	4650.	0.0375
1674.	0.16	4651.	0.0378
1675.	0.1591	4652.	0.035
1676.	0.1617	4653.	0.0338
1677.	0.1579	4654.	0.0354
1678.	0.1596	4655.	0.0321
1679.	0.1571	4656.	0.0337
1680.	0.1603	4657.	0.0334

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1681.	0.1589	4658.	0.036
1682.	0.1582	4659.	0.0331
1683.	0.1577	4660.	0.0338
1684.	0.1559	4661.	0.0331
1685.	0.1609	4662.	0.0339
1686.	0.161	4663.	0.0373
1687.	0.1598	4664.	0.0335
1688.	0.1597	4665.	0.0349
1689.	0.1548	4666.	0.0364
1690.	0.1568	4667.	0.0344
1691.	0.1579	4668.	0.0357
1692.	0.1575	4669.	0.0318
1693.	0.1584	4670.	0.032
1694.	0.1575	4671.	0.036
1695.	0.1591	4672.	0.0362
1696.	0.156	4673.	0.0348
1697.	0.1571	4674.	0.0361
1698.	0.1569	4675.	0.0362
1699.	0.1538	4676.	0.0341
1700.	0.1567	4677.	0.0356
1701.	0.1557	4678.	0.0362
1702.	0.159	4679.	0.0342
1703.	0.1556	4680.	0.0345
1704.	0.1571	4681.	0.0346
1705.	0.1557	4682.	0.0382
1706.	0.156	4683.	0.0364
1707.	0.1561	4684.	0.0347
1708.	0.1569	4685.	0.0337
1709.	0.1553	4686.	0.0344
1710.	0.1569	4687.	0.0318
1711.	0.1567	4688.	0.0344
1712.	0.1574	4689.	0.0326
1713.	0.156	4690.	0.0351
1714.	0.1565	4691.	0.0343
1715.	0.1541	4692.	0.0366
1716.	0.155	4693.	0.032
1717.	0.1574	4694.	0.0345
1718.	0.1588	4695.	0.034
1719.	0.1549	4696.	0.0353
1720.	0.1579	4697.	0.032
1721.	0.1565	4698.	0.0327
1722.	0.1569	4699.	0.0323
1723.	0.1547	4700.	0.0351
1724.	0.1521	4701.	0.0335
1725.	0.1529	4702.	0.0355
1726.	0.156	4703.	0.035
1727.	0.1584	4704.	0.0316
1728.	0.1528	4705.	0.0326
1729.	0.1541	4706.	0.0313
1730.	0.1541	4707.	0.0332
1731.	0.156	4708.	0.035
1732.	0.1542	4709.	0.032
1733.	0.1553	4710.	0.0341
1734.	0.1545	4711.	0.0327
1735.	0.155	4712.	0.0322
1736.	0.1571	4713.	0.0344
1737.	0.1557	4714.	0.0347
1738.	0.1554	4715.	0.0324
1739.	0.1535	4716.	0.0349
1740.	0.1562	4717.	0.0313
1741.	0.1537	4718.	0.0338
1742.	0.1543	4719.	0.0309
1743.	0.1526	4720.	0.0305
1744.	0.1539	4721.	0.0308
1745.	0.1554	4722.	0.0327
1746.	0.1569	4723.	0.0292

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1747.	0.1554	4724.	0.0362
1748.	0.1522	4725.	0.0423
1749.	0.159	4726.	0.0444
1750.	0.1521	4727.	0.0442
1751.	0.1566	4728.	0.0434
1752.	0.1498	4729.	0.0454
1753.	0.15	4730.	0.042
1754.	0.1549	4731.	0.0431
1755.	0.1518	4732.	0.0425
1756.	0.1555	4733.	0.0411
1757.	0.1531	4734.	0.0432
1758.	0.1541	4735.	0.0404
1759.	0.1562	4736.	0.0437
1760.	0.1548	4737.	0.0409
1761.	0.1519	4738.	0.0395
1762.	0.1518	4739.	0.0399
1763.	0.1512	4740.	0.0417
1764.	0.156	4741.	0.0442
1765.	0.1528	4742.	0.0416
1766.	0.1525	4743.	0.0418
1767.	0.1493	4744.	0.0423
1768.	0.1562	4745.	0.0421
1769.	0.1514	4746.	0.0435
1770.	0.1547	4747.	0.0413
1771.	0.1518	4748.	0.0406
1772.	0.1531	4749.	0.0435
1773.	0.1509	4750.	0.0386
1774.	0.1539	4751.	0.041
1775.	0.1538	4752.	0.0418
1776.	0.1559	4753.	0.0404
1777.	0.152	4754.	0.042
1778.	0.1524	4755.	0.0409
1779.	0.1529	4756.	0.0421
1780.	0.151	4757.	0.0361
1781.	0.1524	4758.	0.0428
1782.	0.1549	4759.	0.0439
1783.	0.1543	4760.	0.0405
1784.	0.1502	4761.	0.0403
1785.	0.1512	4762.	0.0431
1786.	0.1526	4763.	0.042
1787.	0.1552	4764.	0.0384
1788.	0.152	4765.	0.0444
1789.	0.1536	4766.	0.044
1790.	0.1537	4767.	0.0382
1791.	0.1504	4768.	0.0385
1792.	0.1519	4769.	0.0413
1793.	0.1551	4770.	0.0416
1794.	0.1518	4771.	0.0373
1795.	0.1518	4772.	0.0405
1796.	0.1531	4773.	0.0394
1797.	0.1519	4774.	0.0413
1798.	0.1541	4775.	0.0414
1799.	0.153	4776.	0.0415
1800.	0.156	4777.	0.0413
1801.	0.1518	4778.	0.0452
1802.	0.1524	4779.	0.0394
1803.	0.1545	4780.	0.0423
1804.	0.1517	4781.	0.0425
1805.	0.1521	4782.	0.0389
1806.	0.1528	4783.	0.0416
1807.	0.1495	4784.	0.0411
1808.	0.1524	4785.	0.0384
1809.	0.1494	4786.	0.0378
1810.	0.1525	4787.	0.0392
1811.	0.151	4788.	0.0397
1812.	0.1517	4789.	0.0381

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1813.	0.1493	4790.	0.0404
1814.	0.1512	4791.	0.0426
1815.	0.1529	4792.	0.0404
1816.	0.149	4793.	0.0401
1817.	0.1518	4794.	0.0413
1818.	0.1482	4795.	0.0393
1819.	0.149	4796.	0.0421
1820.	0.1537	4797.	0.0406
1821.	0.1509	4798.	0.0393
1822.	0.1474	4799.	0.0398
1823.	0.1473	4800.	0.0387
1824.	0.1489	4801.	0.0404
1825.	0.1524	4802.	0.039
1826.	0.1467	4803.	0.0368
1827.	0.1487	4804.	0.0406
1828.	0.1503	4805.	0.0412
1829.	0.1506	4806.	0.0415
1830.	0.1504	4807.	0.0396
1831.	0.1505	4808.	0.0402
1832.	0.1461	4809.	0.0374
1833.	0.1481	4810.	0.0394
1834.	0.1472	4811.	0.0364
1835.	0.1481	4812.	0.0367
1836.	0.1489	4813.	0.0381
1837.	0.1492	4814.	0.0363
1838.	0.1493	4815.	0.0379
1839.	0.1474	4816.	0.038
1840.	0.1483	4817.	0.0369
1841.	0.1483	4818.	0.0405
1842.	0.1477	4819.	0.0374
1843.	0.1492	4820.	0.0392
1844.	0.1519	4821.	0.0361
1845.	0.1481	4822.	0.0381
1846.	0.1464	4823.	0.0362
1847.	0.1485	4824.	0.0376
1848.	0.1487	4825.	0.0396
1849.	0.1488	4826.	0.0371
1850.	0.1454	4827.	0.0404
1851.	0.147	4828.	0.039
1852.	0.1446	4829.	0.0385
1853.	0.1464	4830.	0.0401
1854.	0.148	4831.	0.0404
1855.	0.1486	4832.	0.0399
1856.	0.1491	4833.	0.0374
1857.	0.1468	4834.	0.0388
1858.	0.1481	4835.	0.0393
1859.	0.1475	4836.	0.0385
1860.	0.1487	4837.	0.0382
1861.	0.1487	4838.	0.0399
1862.	0.1443	4839.	0.042
1863.	0.1467	4840.	0.0376
1864.	0.149	4841.	0.0406
1865.	0.148	4842.	0.0408
1866.	0.1466	4843.	0.0413
1867.	0.1436	4844.	0.0412
1868.	0.1471	4845.	0.039
1869.	0.1496	4846.	0.0384
1870.	0.1476	4847.	0.0381
1871.	0.1464	4848.	0.0416
1872.	0.1461	4849.	0.0404
1873.	0.1464	4850.	0.0384
1874.	0.1441	4851.	0.0379
1875.	0.1481	4852.	0.0371
1876.	0.1463	4853.	0.0387
1877.	0.1475	4854.	0.0391
1878.	0.1455	4855.	0.0385

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1879.	0.1474	4856.	0.0392
1880.	0.1467	4857.	0.0371
1881.	0.1462	4858.	0.0422
1882.	0.1477	4859.	0.0387
1883.	0.1428	4860.	0.0418
1884.	0.146	4861.	0.0408
1885.	0.1419	4862.	0.037
1886.	0.1385	4863.	0.0404
1887.	0.1473	4864.	0.0396
1888.	0.1433	4865.	0.0392
1889.	0.1445	4866.	0.0395
1890.	0.1445	4867.	0.0402
1891.	0.1426	4868.	0.041
1892.	0.1455	4869.	0.0395
1893.	0.1442	4870.	0.0421
1894.	0.1406	4871.	0.0394
1895.	0.1455	4872.	0.0389
1896.	0.1431	4873.	0.0375
1897.	0.144	4874.	0.0414
1898.	0.1456	4875.	0.038
1899.	0.147	4876.	0.0351
1900.	0.1424	4877.	0.0379
1901.	0.1468	4878.	0.0377
1902.	0.1433	4879.	0.0371
1903.	0.1409	4880.	0.0387
1904.	0.1464	4881.	0.0397
1905.	0.1429	4882.	0.0385
1906.	0.1421	4883.	0.0402
1907.	0.1409	4884.	0.0378
1908.	0.1432	4885.	0.0381
1909.	0.1407	4886.	0.0397
1910.	0.1443	4887.	0.0378
1911.	0.1414	4888.	0.0416
1912.	0.14	4889.	0.0399
1913.	0.1397	4890.	0.0384
1914.	0.1448	4891.	0.0365
1915.	0.1402	4892.	0.0376
1916.	0.1414	4893.	0.0388
1917.	0.1397	4894.	0.0402
1918.	0.1406	4895.	0.0394
1919.	0.14	4896.	0.0379
1920.	0.1412	4897.	0.0398
1921.	0.1371	4898.	0.038
1922.	0.144	4899.	0.0358
1923.	0.1429	4900.	0.0348
1924.	0.1381	4901.	0.0413
1925.	0.141	4902.	0.0433
1926.	0.142	4903.	0.039
1927.	0.1399	4904.	0.039
1928.	0.1416	4905.	0.0409
1929.	0.1407	4906.	0.0385
1930.	0.1411	4907.	0.0398
1931.	0.14	4908.	0.0404
1932.	0.1442	4909.	0.0387
1933.	0.1433	4910.	0.0393
1934.	0.1405	4911.	0.0396
1935.	0.141	4912.	0.0373
1936.	0.1415	4913.	0.0365
1937.	0.1424	4914.	0.0376
1938.	0.1408	4915.	0.039
1939.	0.1426	4916.	0.0382
1940.	0.1427	4917.	0.0388
1941.	0.1422	4918.	0.038
1942.	0.1416	4919.	0.0373
1943.	0.1407	4920.	0.039
1944.	0.1425	4921.	0.0387

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1945.	0.14	4922.	0.0375
1946.	0.1424	4923.	0.042
1947.	0.1407	4924.	0.0386
1948.	0.1412	4925.	0.0416
1949.	0.1421	4926.	0.0379
1950.	0.1412	4927.	0.0397
1951.	0.1421	4928.	0.0394
1952.	0.1402	4929.	0.038
1953.	0.1427	4930.	0.0394
1954.	0.1416	4931.	0.0378
1955.	0.1429	4932.	0.0371
1956.	0.1421	4933.	0.0387
1957.	0.144	4934.	0.0368
1958.	0.1412	4935.	0.0378
1959.	0.1408	4936.	0.0367
1960.	0.1405	4937.	0.0351
1961.	0.1398	4938.	0.0361
1962.	0.1403	4939.	0.0394
1963.	0.1428	4940.	0.0366
1964.	0.1429	4941.	0.0374
1965.	0.1405	4942.	0.0385
1966.	0.1397	4943.	0.0398
1967.	0.144	4944.	0.0363
1968.	0.1437	4945.	0.0368
1969.	0.1398	4946.	0.0368
1970.	0.1433	4947.	0.0361
1971.	0.1405	4948.	0.0379
1972.	0.1414	4949.	0.0382
1973.	0.1417	4950.	0.0363
1974.	0.1426	4951.	0.0327
1975.	0.1421	4952.	0.0339
1976.	0.1433	4953.	0.0382
1977.	0.145	4954.	0.0374
1978.	0.1415	4955.	0.0391
1979.	0.1401	4956.	0.0379
1980.	0.1414	4957.	0.036
1981.	0.14	4958.	0.0362
1982.	0.14	4959.	0.0386
1983.	0.1407	4960.	0.039
1984.	0.1388	4961.	0.0369
1985.	0.1387	4962.	0.0377
1986.	0.1414	4963.	0.0366
1987.	0.1371	4964.	0.0393
1988.	0.1398	4965.	0.0361
1989.	0.1412	4966.	0.0393
1990.	0.1426	4967.	0.0388
1991.	0.1414	4968.	0.0399
1992.	0.1409	4969.	0.0406
1993.	0.1369	4970.	0.0368
1994.	0.1405	4971.	0.0382
1995.	0.1369	4972.	0.0384
1996.	0.1398	4973.	0.0382
1997.	0.1402	4974.	0.0385
1998.	0.1385	4975.	0.0392
1999.	0.1376	4976.	0.039
2000.	0.139	4977.	0.0364
2001.	0.139	4978.	0.0385
2002.	0.1385	4979.	0.0396
2003.	0.1372	4980.	0.0369
2004.	0.1388	4981.	0.0384
2005.	0.1385	4982.	0.0373
2006.	0.1413	4983.	0.0373
2007.	0.1385	4984.	0.0382
2008.	0.1367	4985.	0.037
2009.	0.1381	4986.	0.0397
2010.	0.1381	4987.	0.0388

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2011.	0.1391	4988.	0.0362
2012.	0.1369	4989.	0.0362
2013.	0.1393	4990.	0.0393
2014.	0.1371	4991.	0.037
2015.	0.1366	4992.	0.0382
2016.	0.1397	4993.	0.036
2017.	0.1373	4994.	0.0364
2018.	0.1363	4995.	0.0377
2019.	0.1362	4996.	0.0376
2020.	0.1388	4997.	0.0384
2021.	0.1357	4998.	0.0367
2022.	0.1366	4999.	0.0369
2023.	0.1392	5000.	0.0383
2024.	0.1356	5001.	0.0386
2025.	0.1368	5002.	0.0394
2026.	0.1353	5003.	0.0366
2027.	0.1356	5004.	0.037
2028.	0.1366	5005.	0.0365
2029.	0.1347	5006.	0.0341
2030.	0.1359	5007.	0.0377
2031.	0.1358	5008.	0.039
2032.	0.1364	5009.	0.0404
2033.	0.1328	5010.	0.0353
2034.	0.1347	5011.	0.0347
2035.	0.1359	5012.	0.0352
2036.	0.1357	5013.	0.0358
2037.	0.1354	5014.	0.0375
2038.	0.1362	5015.	0.035
2039.	0.1366	5016.	0.0347
2040.	0.1348	5017.	0.0375
2041.	0.1329	5018.	0.0355
2042.	0.138	5019.	0.0345
2043.	0.1363	5020.	0.0328
2044.	0.1342	5021.	0.0333
2045.	0.1371	5022.	0.0364
2046.	0.1383	5023.	0.0355
2047.	0.1367	5024.	0.0381
2048.	0.1361	5025.	0.0334
2049.	0.1336	5026.	0.0352
2050.	0.1378	5027.	0.0327
2051.	0.1338	5028.	0.0323
2052.	0.1335	5029.	0.0382
2053.	0.1364	5030.	0.0346
2054.	0.1356	5031.	0.0364
2055.	0.1334	5032.	0.0368
2056.	0.1346	5033.	0.034
2057.	0.1361	5034.	0.0353
2058.	0.1358	5035.	0.0363
2059.	0.1381	5036.	0.0349
2060.	0.1369	5037.	0.037
2061.	0.1342	5038.	0.0357
2062.	0.1346	5039.	0.035
2063.	0.1364	5040.	0.0361
2064.	0.1351	5041.	0.0372
2065.	0.132	5042.	0.0351
2066.	0.1326	5043.	0.0327
2067.	0.1383	5044.	0.0373
2068.	0.1347	5045.	0.0368
2069.	0.1349	5046.	0.0368
2070.	0.135	5047.	0.0313
2071.	0.1339	5048.	0.0346
2072.	0.1358	5049.	0.0323
2073.	0.1344	5050.	0.0333
2074.	0.1354	5051.	0.0319
2075.	0.1319	5052.	0.0343
2076.	0.1347	5053.	0.0319

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2077.	0.1342	5054.	0.0334
2078.	0.1362	5055.	0.0357
2079.	0.1326	5056.	0.0338
2080.	0.1337	5057.	0.032
2081.	0.1329	5058.	0.0362
2082.	0.1333	5059.	0.0344
2083.	0.1327	5060.	0.0356
2084.	0.1288	5061.	0.0339
2085.	0.1354	5062.	0.0359
2086.	0.1315	5063.	0.0315
2087.	0.1333	5064.	0.0327
2088.	0.133	5065.	0.0341
2089.	0.1345	5066.	0.0373
2090.	0.1333	5067.	0.0345
2091.	0.1335	5068.	0.0354
2092.	0.135	5069.	0.0318
2093.	0.1331	5070.	0.0316
2094.	0.1307	5071.	0.0315
2095.	0.1346	5072.	0.0306
2096.	0.1333	5073.	0.0339
2097.	0.133	5074.	0.0336
2098.	0.133	5075.	0.0329
2099.	0.132	5076.	0.0347
2100.	0.132	5077.	0.0346
2101.	0.1347	5078.	0.0323
2102.	0.1322	5079.	0.0329
2103.	0.1347	5080.	0.031
2104.	0.1351	5081.	0.0335
2105.	0.1351	5082.	0.0315
2106.	0.1306	5083.	0.0364
2107.	0.1319	5084.	0.0308
2108.	0.1331	5085.	0.0364
2109.	0.1337	5086.	0.0339
2110.	0.133	5087.	0.0327
2111.	0.1349	5088.	0.034
2112.	0.1305	5089.	0.0329
2113.	0.133	5090.	0.0328
2114.	0.1292	5091.	0.0329
2115.	0.132	5092.	0.0326
2116.	0.1335	5093.	0.0353
2117.	0.1296	5094.	0.0316
2118.	0.1308	5095.	0.0335
2119.	0.1302	5096.	0.0349
2120.	0.1313	5097.	0.0318
2121.	0.1327	5098.	0.0321
2122.	0.1319	5099.	0.0333
2123.	0.1313	5100.	0.0333
2124.	0.1323	5101.	0.0345
2125.	0.135	5102.	0.0318
2126.	0.131	5103.	0.032
2127.	0.1319	5104.	0.034
2128.	0.1312	5105.	0.0325
2129.	0.1307	5106.	0.0309
2130.	0.131	5107.	0.033
2131.	0.1321	5108.	0.0296
2132.	0.1313	5109.	0.036
2133.	0.1302	5110.	0.033
2134.	0.132	5111.	0.0301
2135.	0.1324	5112.	0.0305
2136.	0.1312	5113.	0.031
2137.	0.1357	5114.	0.0309
2138.	0.1262	5115.	0.0311
2139.	0.1301	5116.	0.034
2140.	0.1302	5117.	0.0316
2141.	0.1295	5118.	0.0317
2142.	0.1297	5119.	0.0347

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2143.	0.1304	5120.	0.0334
2144.	0.1289	5121.	0.0339
2145.	0.1275	5122.	0.0309
2146.	0.1302	5123.	0.0314
2147.	0.1264	5124.	0.0315
2148.	0.1292	5125.	0.0285
2149.	0.1283	5126.	0.0316
2150.	0.1291	5127.	0.0296
2151.	0.1293	5128.	0.031
2152.	0.1292	5129.	0.0324
2153.	0.1306	5130.	0.0348
2154.	0.1276	5131.	0.0309
2155.	0.1285	5132.	0.0351
2156.	0.1279	5133.	0.0297
2157.	0.1286	5134.	0.0314
2158.	0.1304	5135.	0.0324
2159.	0.1263	5136.	0.0307
2160.	0.1282	5137.	0.0297
2161.	0.1275	5138.	0.0305
2162.	0.1262	5139.	0.0304
2163.	0.1284	5140.	0.0297
2164.	0.1305	5141.	0.0298
2165.	0.1276	5142.	0.0282
2166.	0.1319	5143.	0.0305
2167.	0.129	5144.	0.0332
2168.	0.1306	5145.	0.0313
2169.	0.1291	5146.	0.0306
2170.	0.1288	5147.	0.0289
2171.	0.1256	5148.	0.0281
2172.	0.125	5149.	0.0277
2173.	0.1271	5150.	0.0307
2174.	0.1282	5151.	0.0317
2175.	0.1285	5152.	0.0215
2176.	0.126	5153.	0.0188
2177.	0.1262	5154.	0.021
2178.	0.1275	5155.	0.0179
2179.	0.1268	5156.	0.0203
2180.	0.1245	5157.	0.0294
2181.	0.1274	5158.	0.0276
2182.	0.1272	5159.	0.0328
2183.	0.1267	5160.	0.03
2184.	0.1278	5161.	0.0273
2185.	0.1306	5162.	0.0288
2186.	0.128	5163.	0.0299
2187.	0.1273	5164.	0.0288
2188.	0.1281	5165.	0.0252
2189.	0.1287	5166.	0.0316
2190.	0.1266	5167.	0.0308
2191.	0.1295	5168.	0.028
2192.	0.132	5169.	0.0273
2193.	0.1265	5170.	0.031
2194.	0.1278	5171.	0.0289
2195.	0.1265	5172.	0.0309
2196.	0.1303	5173.	0.0285
2197.	0.1295	5174.	0.0292
2198.	0.1288	5175.	0.029
2199.	0.1265	5176.	0.0307
2200.	0.1275	5177.	0.0296
2201.	0.128	5178.	0.0317
2202.	0.1256	5179.	0.0301
2203.	0.1267	5180.	0.031
2204.	0.1249	5181.	0.0249
2205.	0.1258	5182.	0.0312
2206.	0.1253	5183.	0.0278
2207.	0.126	5184.	0.0273
2208.	0.1258	5185.	0.0295

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2209.	0.1271	5186.	0.0273
2210.	0.1309	5187.	0.029
2211.	0.1244	5188.	0.0285
2212.	0.1266	5189.	0.0313
2213.	0.1278	5190.	0.0287
2214.	0.1271	5191.	0.0318
2215.	0.1283	5192.	0.0302
2216.	0.12	5193.	0.0263
2217.	0.1258	5194.	0.0269
2218.	0.1254	5195.	0.0261
2219.	0.1272	5196.	0.0309
2220.	0.1211	5197.	0.0271
2221.	0.1232	5198.	0.0289
2222.	0.1248	5199.	0.0265
2223.	0.126	5200.	0.0272
2224.	0.1272	5201.	0.0282
2225.	0.1272	5202.	0.0266
2226.	0.1261	5203.	0.0269
2227.	0.1242	5204.	0.0303
2228.	0.1266	5205.	0.0267
2229.	0.1242	5206.	0.028
2230.	0.1245	5207.	0.0275
2231.	0.1235	5208.	0.0251
2232.	0.1231	5209.	0.027
2233.	0.1247	5210.	0.0259
2234.	0.1226	5211.	0.0287
2235.	0.1254	5212.	0.028
2236.	0.123	5213.	0.0293
2237.	0.1235	5214.	0.0301
2238.	0.1263	5215.	0.0294
2239.	0.1191	5216.	0.0271
2240.	0.1262	5217.	0.0291
2241.	0.1245	5218.	0.0261
2242.	0.1231	5219.	0.0283
2243.	0.1258	5220.	0.0251
2244.	0.1211	5221.	0.0273
2245.	0.1235	5222.	0.0257
2246.	0.1243	5223.	0.0268
2247.	0.1232	5224.	0.0254
2248.	0.1214	5225.	0.0263
2249.	0.1256	5226.	0.029
2250.	0.124	5227.	0.026
2251.	0.1247	5228.	0.0232
2252.	0.1246	5229.	0.0254
2253.	0.1214	5230.	0.0268
2254.	0.1223	5231.	0.0266
2255.	0.1245	5232.	0.0282
2256.	0.1254	5233.	0.0242
2257.	0.1195	5234.	0.0258
2258.	0.1231	5235.	0.0246
2259.	0.1249	5236.	0.0253
2260.	0.1235	5237.	0.0264
2261.	0.1237	5238.	0.0262
2262.	0.1242	5239.	0.0237
2263.	0.1219	5240.	0.0272
2264.	0.123	5241.	0.0251
2265.	0.1201	5242.	0.0255
2266.	0.1233	5243.	0.0229
2267.	0.1245	5244.	0.0249
2268.	0.1261	5245.	0.0286
2269.	0.1254	5246.	0.0254
2270.	0.1257	5247.	0.0275
2271.	0.1247	5248.	0.0263
2272.	0.1256	5249.	0.0258
2273.	0.1266	5250.	0.0263
2274.	0.1227	5251.	0.025

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2275.	0.1228	5252.	0.0281
2276.	0.1229	5253.	0.0254
2277.	0.1234	5254.	0.0256
2278.	0.1211	5255.	0.0307
2279.	0.1239	5256.	0.0251
2280.	0.1211	5257.	0.0277
2281.	0.1243	5258.	0.0273
2282.	0.1247	5259.	0.0258
2283.	0.124	5260.	0.0254
2284.	0.1219	5261.	0.0254
2285.	0.1249	5262.	0.0264
2286.	0.1236	5263.	0.027
2287.	0.1225	5264.	0.0256
2288.	0.122	5265.	0.0251
2289.	0.1236	5266.	0.0266
2290.	0.1248	5267.	0.0249
2291.	0.1229	5268.	0.028
2292.	0.1206	5269.	0.0265
2293.	0.12	5270.	0.0244
2294.	0.1231	5271.	0.022
2295.	0.1234	5272.	0.023
2296.	0.1231	5273.	0.0218
2297.	0.121	5274.	0.0217
2298.	0.1236	5275.	0.0248
2299.	0.1194	5276.	0.0213
2300.	0.1216	5277.	0.0212
2301.	0.1211	5278.	0.0246
2302.	0.1182	5279.	0.0203
2303.	0.1201	5280.	0.0272
2304.	0.124	5281.	0.0208
2305.	0.1233	5282.	0.0222
2306.	0.1195	5283.	0.0218
2307.	0.1221	5284.	0.0241
2308.	0.1194	5285.	0.0227
2309.	0.1199	5286.	0.0225
2310.	0.1196	5287.	0.0203
2311.	0.1197	5288.	0.0194
2312.	0.1171	5289.	0.0246
2313.	0.1186	5290.	0.0225
2314.	0.1184	5291.	0.023
2315.	0.1195	5292.	0.022
2316.	0.1224	5293.	0.0256
2317.	0.1233	5294.	0.0223
2318.	0.1214	5295.	0.0223
2319.	0.1178	5296.	0.0229
2320.	0.1219	5297.	0.0258
2321.	0.1196	5298.	0.0242
2322.	0.121	5299.	0.0226
2323.	0.118	5300.	0.0226
2324.	0.1218	5301.	0.0243
2325.	0.1218	5302.	0.0258
2326.	0.1225	5303.	0.0242
2327.	0.1218	5304.	0.0239
2328.	0.1199	5305.	0.0263
2329.	0.1191	5306.	0.0234
2330.	0.121	5307.	0.0255
2331.	0.1202	5308.	0.0231
2332.	0.1199	5309.	0.0251
2333.	0.1211	5310.	0.0245
2334.	0.1168	5311.	0.0271
2335.	0.1266	5312.	0.0241
2336.	0.1223	5313.	0.0233
2337.	0.1175	5314.	0.0256
2338.	0.1209	5315.	0.0237
2339.	0.1201	5316.	0.0246
2340.	0.119	5317.	0.0246

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2341.	0.1246	5318.	0.0211
2342.	0.1157	5319.	0.0216
2343.	0.1178	5320.	0.0229
2344.	0.1214	5321.	0.0237
2345.	0.1223	5322.	0.0218
2346.	0.122	5323.	0.0215
2347.	0.1188	5324.	0.0215
2348.	0.1214	5325.	0.0249
2349.	0.118	5326.	0.0249
2350.	0.1167	5327.	0.0255
2351.	0.1216	5328.	0.0219
2352.	0.1184	5329.	0.0211
2353.	0.1192	5330.	0.0237
2354.	0.1214	5331.	0.023
2355.	0.1222	5332.	0.0213
2356.	0.1206	5333.	0.0233
2357.	0.1193	5334.	0.0265
2358.	0.1187	5335.	0.0225
2359.	0.1214	5336.	0.0232
2360.	0.1197	5337.	0.0243
2361.	0.1219	5338.	0.023
2362.	0.1193	5339.	0.0239
2363.	0.1173	5340.	0.0229
2364.	0.1203	5341.	0.0218
2365.	0.12	5342.	0.0233
2366.	0.1176	5343.	0.0227
2367.	0.1225	5344.	0.0247
2368.	0.1178	5345.	0.0261
2369.	0.1185	5346.	0.0221
2370.	0.1184	5347.	0.0213
2371.	0.1187	5348.	0.0237
2372.	0.1164	5349.	0.0202
2373.	0.1192	5350.	0.0242
2374.	0.1168	5351.	0.0244
2375.	0.1159	5352.	0.0209
2376.	0.1169	5353.	0.0249
2377.	0.1177	5354.	0.026
2378.	0.1189	5355.	0.0233
2379.	0.1153	5356.	0.0232
2380.	0.1171	5357.	0.0212
2381.	0.1178	5358.	0.0234
2382.	0.1199	5359.	0.0222
2383.	0.1186	5360.	0.0239
2384.	0.1175	5361.	0.0185
2385.	0.1193	5362.	0.0195
2386.	0.1203	5363.	0.0215
2387.	0.1175	5364.	0.023
2388.	0.1195	5365.	0.0218
2389.	0.1185	5366.	0.0221
2390.	0.1195	5367.	0.021
2391.	0.1179	5368.	0.0208
2392.	0.1186	5369.	0.0199
2393.	0.12	5370.	0.022
2394.	0.1185	5371.	0.0216
2395.	0.1214	5372.	0.0224
2396.	0.1146	5373.	0.0219
2397.	0.1187	5374.	0.0184
2398.	0.1181	5375.	0.0203
2399.	0.1143	5376.	0.021
2400.	0.119	5377.	0.0225
2401.	0.1194	5378.	0.022
2402.	0.1187	5379.	0.0228
2403.	0.1195	5380.	0.0206
2404.	0.1167	5381.	0.0251
2405.	0.118	5382.	0.0246
2406.	0.1184	5383.	0.0223

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2407.	0.1203	5384.	0.0208
2408.	0.1179	5385.	0.017
2409.	0.1172	5386.	0.0191
2410.	0.119	5387.	0.0214
2411.	0.1183	5388.	0.0196
2412.	0.118	5389.	0.0213
2413.	0.1173	5390.	0.022
2414.	0.1185	5391.	0.0199
2415.	0.1176	5392.	0.0215
2416.	0.1157	5393.	0.0194
2417.	0.1172	5394.	0.0196
2418.	0.1143	5395.	0.0223
2419.	0.1156	5396.	0.0232
2420.	0.1192	5397.	0.0179
2421.	0.1151	5398.	0.02
2422.	0.1169	5399.	0.0185
2423.	0.117	5400.	0.02
2424.	0.1166	5401.	0.0226
2425.	0.1156	5402.	0.0206
2426.	0.1166	5403.	0.0216
2427.	0.117	5404.	0.0209
2428.	0.1123	5405.	0.0198
2429.	0.1176	5406.	0.023
2430.	0.1185	5407.	0.0222
2431.	0.1154	5408.	0.0203
2432.	0.1139	5409.	0.0203
2433.	0.1147	5410.	0.0205
2434.	0.1144	5411.	0.0234
2435.	0.1162	5412.	0.0177
2436.	0.1118	5413.	0.0198
2437.	0.1151	5414.	0.0188
2438.	0.1133	5415.	0.0215
2439.	0.1178	5416.	0.0191
2440.	0.1175	5417.	0.0213
2441.	0.1151	5418.	0.0213
2442.	0.1175	5419.	0.0211
2443.	0.1181	5420.	0.0196
2444.	0.1167	5421.	0.0172
2445.	0.1166	5422.	0.0222
2446.	0.1161	5423.	0.0208
2447.	0.116	5424.	0.0201
2448.	0.1188	5425.	0.0197
2449.	0.1185	5426.	0.0209
2450.	0.1173	5427.	0.022
2451.	0.1185	5428.	0.0196
2452.	0.1142	5429.	0.0188
2453.	0.114	5430.	0.0223
2454.	0.1162	5431.	0.0201
2455.	0.1127	5432.	0.0187
2456.	0.1117	5433.	0.0218
2457.	0.1159	5434.	0.0197
2458.	0.1189	5435.	0.0215
2459.	0.1149	5436.	0.0199
2460.	0.1139	5437.	0.0217
2461.	0.1178	5438.	0.0198
2462.	0.1142	5439.	0.0201
2463.	0.1187	5440.	0.0215
2464.	0.1148	5441.	0.0225
2465.	0.1152	5442.	0.0194
2466.	0.1168	5443.	0.0187
2467.	0.1164	5444.	0.0191
2468.	0.1135	5445.	0.0175
2469.	0.1173	5446.	0.0217
2470.	0.1156	5447.	0.0195
2471.	0.114	5448.	0.0221
2472.	0.1139	5449.	0.0187

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2473.	0.1194	5450.	0.0186
2474.	0.1168	5451.	0.0189
2475.	0.1119	5452.	0.0196
2476.	0.1168	5453.	0.0208
2477.	0.1161	5454.	0.0215
2478.	0.1168	5455.	0.0178
2479.	0.116	5456.	0.0172
2480.	0.1147	5457.	0.0197
2481.	0.1174	5458.	0.0189
2482.	0.1131	5459.	0.0182
2483.	0.114	5460.	0.0182
2484.	0.1151	5461.	0.0201
2485.	0.1138	5462.	0.0198
2486.	0.1142	5463.	0.0183
2487.	0.1123	5464.	0.0191
2488.	0.1128	5465.	0.0206
2489.	0.1116	5466.	0.0177
2490.	0.1161	5467.	0.0201
2491.	0.1168	5468.	0.0165
2492.	0.1161	5469.	0.0191
2493.	0.1125	5470.	0.0191
2494.	0.1155	5471.	0.0211
2495.	0.1128	5472.	0.0196
2496.	0.1123	5473.	0.0183
2497.	0.1126	5474.	0.0143
2498.	0.1142	5475.	0.0154
2499.	0.1135	5476.	0.0153
2500.	0.1161	5477.	0.0158
2501.	0.118	5478.	0.0206
2502.	0.1157	5479.	0.0157
2503.	0.1174	5480.	0.0174
2504.	0.1143	5481.	0.0176
2505.	0.1151	5482.	0.0172
2506.	0.1115	5483.	0.0192
2507.	0.1156	5484.	0.0176
2508.	0.1118	5485.	0.0187
2509.	0.1123	5486.	0.017
2510.	0.1148	5487.	0.0174
2511.	0.1151	5488.	0.0175
2512.	0.1156	5489.	0.0165
2513.	0.1156	5490.	0.017
2514.	0.1115	5491.	0.0139
2515.	0.1151	5492.	0.0142
2516.	0.1137	5493.	0.0171
2517.	0.1127	5494.	0.018
2518.	0.117	5495.	0.016
2519.	0.1159	5496.	0.0172
2520.	0.1162	5497.	0.0182
2521.	0.1148	5498.	0.0127
2522.	0.1154	5499.	0.0159
2523.	0.1162	5500.	0.0194
2524.	0.1138	5501.	0.0175
2525.	0.1115	5502.	0.0166
2526.	0.1147	5503.	0.0168
2527.	0.1129	5504.	0.0165
2528.	0.1149	5505.	0.0148
2529.	0.1155	5506.	0.0175
2530.	0.1137	5507.	0.0221
2531.	0.1145	5508.	0.0148
2532.	0.1136	5509.	0.0141
2533.	0.1139	5510.	0.0166
2534.	0.114	5511.	0.0168
2535.	0.1148	5512.	0.0177
2536.	0.1154	5513.	0.0145
2537.	0.1129	5514.	0.016
2538.	0.1142	5515.	0.0176

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2539.	0.1107	5516.	0.0137
2540.	0.1147	5517.	0.0157
2541.	0.1144	5518.	0.0148
2542.	0.1148	5519.	0.016
2543.	0.1118	5520.	0.016
2544.	0.1104	5521.	0.0145
2545.	0.1132	5522.	0.0196
2546.	0.1139	5523.	0.0196
2547.	0.1163	5524.	0.0172
2548.	0.1106	5525.	0.0167
2549.	0.1154	5526.	0.017
2550.	0.1132	5527.	0.0159
2551.	0.112	5528.	0.0165
2552.	0.1147	5529.	0.0164
2553.	0.1135	5530.	0.0168
2554.	0.1166	5531.	0.0187
2555.	0.113	5532.	0.0154
2556.	0.1134	5533.	0.0179
2557.	0.1123	5534.	0.0168
2558.	0.1164	5535.	0.0156
2559.	0.113	5536.	0.0193
2560.	0.1162	5537.	0.0139
2561.	0.1136	5538.	0.0163
2562.	0.1135	5539.	0.017
2563.	0.1132	5540.	0.0166
2564.	0.1122	5541.	0.016
2565.	0.1132	5542.	0.0128
2566.	0.1142	5543.	0.0137
2567.	0.1126	5544.	0.0116
2568.	0.1139	5545.	0.017
2569.	0.113	5546.	0.0133
2570.	0.1114	5547.	0.0158
2571.	0.1115	5548.	0.0162
2572.	0.1136	5549.	0.0148
2573.	0.1127	5550.	0.0131
2574.	0.111	5551.	0.0168
2575.	0.1116	5552.	0.0186
2576.	0.1132	5553.	0.0179
2577.	0.1129	5554.	0.0134
2578.	0.1125	5555.	0.0139
2579.	0.1138	5556.	0.0187
2580.	0.1125	5557.	0.0148
2581.	0.1118	5558.	0.0117
2582.	0.1127	5559.	0.0153
2583.	0.112	5560.	0.0141
2584.	0.1126	5561.	0.0122
2585.	0.1129	5562.	0.0156
2586.	0.1116	5563.	0.0171
2587.	0.1114	5564.	0.0143
2588.	0.1085	5565.	0.0151
2589.	0.1112	5566.	0.0139
2590.	0.11	5567.	0.018
2591.	0.1129	5568.	0.0124
2592.	0.1103	5569.	0.0124
2593.	0.1121	5570.	0.0153
2594.	0.1142	5571.	0.0153
2595.	0.1125	5572.	0.0163
2596.	0.1118	5573.	0.0151
2597.	0.1128	5574.	0.0141
2598.	0.1138	5575.	0.0153
2599.	0.1137	5576.	0.0152
2600.	0.1091	5577.	0.0138
2601.	0.1139	5578.	0.0162
2602.	0.1126	5579.	0.0132
2603.	0.1125	5580.	0.0154
2604.	0.114	5581.	0.0147

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2605.	0.1099	5582.	0.0146
2606.	0.1106	5583.	0.0125
2607.	0.1149	5584.	0.0173
2608.	0.1111	5585.	0.0131
2609.	0.1138	5586.	0.0146
2610.	0.1111	5587.	0.0117
2611.	0.1116	5588.	0.0177
2612.	0.113	5589.	0.0127
2613.	0.1111	5590.	0.0114
2614.	0.1135	5591.	0.0132
2615.	0.1149	5592.	0.0132
2616.	0.1096	5593.	0.0157
2617.	0.1104	5594.	0.0157
2618.	0.1098	5595.	0.0146
2619.	0.1096	5596.	0.0152
2620.	0.1089	5597.	0.0191
2621.	0.1097	5598.	0.0163
2622.	0.1092	5599.	0.0138
2623.	0.1109	5600.	0.0141
2624.	0.1099	5601.	0.0132
2625.	0.1113	5602.	0.0135
2626.	0.1109	5603.	0.0145
2627.	0.1103	5604.	0.0151
2628.	0.1089	5605.	0.0148
2629.	0.1099	5606.	0.0134
2630.	0.1118	5607.	0.0131
2631.	0.1101	5608.	0.0146
2632.	0.1102	5609.	0.0144
2633.	0.1096	5610.	0.0136
2634.	0.1113	5611.	0.0175
2635.	0.111	5612.	0.0167
2636.	0.1095	5613.	0.0146
2637.	0.1107	5614.	0.0154
2638.	0.113	5615.	0.0137
2639.	0.1109	5616.	0.0125
2640.	0.109	5617.	0.016
2641.	0.1072	5618.	0.0146
2642.	0.1071	5619.	0.0134
2643.	0.1102	5620.	0.0136
2644.	0.1043	5621.	0.0134
2645.	0.1101	5622.	0.0157
2646.	0.1088	5623.	0.0083
2647.	0.1066	5624.	0.0149
2648.	0.1113	5625.	0.0142
2649.	0.1099	5626.	0.016
2650.	0.1086	5627.	0.014
2651.	0.1064	5628.	0.0146
2652.	0.1061	5629.	0.0146
2653.	0.1039	5630.	0.012
2654.	0.1041	5631.	0.0165
2655.	0.1061	5632.	0.0115
2656.	0.1056	5633.	0.0114
2657.	0.1097	5634.	0.0136
2658.	0.1095	5635.	0.0127
2659.	0.1074	5636.	0.0117
2660.	0.1055	5637.	0.0154
2661.	0.1091	5638.	0.0131
2662.	0.1086	5639.	0.0158
2663.	0.1085	5640.	0.0122
2664.	0.1082	5641.	0.014
2665.	0.1075	5642.	0.0129
2666.	0.1049	5643.	0.013
2667.	0.1063	5644.	0.0138
2668.	0.1094	5645.	0.0113
2669.	0.1057	5646.	0.0126
2670.	0.1069	5647.	0.013

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2671.	0.106	5648.	0.0141
2672.	0.106	5649.	0.0124
2673.	0.1063	5650.	0.0131
2674.	0.1068	5651.	0.0121
2675.	0.1056	5652.	0.0142
2676.	0.1064	5653.	0.0121
2677.	0.1048	5654.	0.0124
2678.	0.1046	5655.	0.0141
2679.	0.1072	5656.	0.0125
2680.	0.1051	5657.	0.0133
2681.	0.1082	5658.	0.0106
2682.	0.1048	5659.	0.0108
2683.	0.108	5660.	0.0099
2684.	0.1073	5661.	0.0139
2685.	0.1061	5662.	0.0126
2686.	0.1067	5663.	0.0161
2687.	0.1045	5664.	0.0108
2688.	0.1072	5665.	0.0122
2689.	0.1071	5666.	0.0091
2690.	0.1075	5667.	0.0143
2691.	0.1053	5668.	0.0139
2692.	0.1045	5669.	0.0125
2693.	0.1053	5670.	0.011
2694.	0.1066	5671.	0.0125
2695.	0.1073	5672.	0.0092
2696.	0.1053	5673.	0.0091
2697.	0.1038	5674.	0.0141
2698.	0.1063	5675.	0.0117
2699.	0.1065	5676.	0.0139
2700.	0.1073	5677.	0.012
2701.	0.1068	5678.	0.0109
2702.	0.105	5679.	0.0093
2703.	0.1043	5680.	0.0127
2704.	0.1074	5681.	0.0086
2705.	0.1057	5682.	0.0148
2706.	0.1067	5683.	0.0096
2707.	0.1063	5684.	0.0112
2708.	0.1074	5685.	0.0132
2709.	0.105	5686.	0.0101
2710.	0.107	5687.	0.0126
2711.	0.1074	5688.	0.012
2712.	0.1029	5689.	0.0131
2713.	0.1054	5690.	0.0109
2714.	0.1034	5691.	0.0078
2715.	0.1053	5692.	0.0119
2716.	0.1049	5693.	0.0126
2717.	0.1039	5694.	0.0122
2718.	0.104	5695.	0.0117
2719.	0.1016	5696.	0.0138
2720.	0.1039	5697.	0.0125
2721.	0.1034	5698.	0.0103
2722.	0.1049	5699.	0.0097
2723.	0.1022	5700.	0.0117
2724.	0.1013	5701.	0.0116
2725.	0.105	5702.	0.0079
2726.	0.1049	5703.	0.0077
2727.	0.1032	5704.	0.01
2728.	0.1016	5705.	0.0093
2729.	0.1023	5706.	0.009
2730.	0.1064	5707.	0.0106
2731.	0.1043	5708.	0.0085
2732.	0.105	5709.	0.0098
2733.	0.1049	5710.	0.0083
2734.	0.1054	5711.	0.0068
2735.	0.1034	5712.	0.0093
2736.	0.1011	5713.	0.0085

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2737.	0.1039	5714.	0.0074
2738.	0.1062	5715.	0.0068
2739.	0.1022	5716.	0.0093
2740.	0.1003	5717.	0.0113
2741.	0.1061	5718.	0.0093
2742.	0.1061	5719.	0.012
2743.	0.1027	5720.	0.0101
2744.	0.1043	5721.	0.0092
2745.	0.105	5722.	0.0079
2746.	0.1037	5723.	0.0083
2747.	0.1004	5724.	0.0132
2748.	0.1049	5725.	0.0079
2749.	0.1032	5726.	0.0103
2750.	0.1035	5727.	0.0131
2751.	0.1016	5728.	0.0096
2752.	0.1025	5729.	0.0079
2753.	0.1057	5730.	0.0106
2754.	0.1016	5731.	0.0119
2755.	0.1061	5732.	0.0096
2756.	0.1021	5733.	0.0094
2757.	0.1016	5734.	0.0083
2758.	0.1001	5735.	0.0101
2759.	0.1028	5736.	0.011
2760.	0.1044	5737.	0.0091
2761.	0.102	5738.	0.0107
2762.	0.1046	5739.	0.0081
2763.	0.1029	5740.	0.0109
2764.	0.0999	5741.	0.0117
2765.	0.1036	5742.	0.0093
2766.	0.1023	5743.	0.0089
2767.	0.1021	5744.	0.011
2768.	0.1033	5745.	0.0057
2769.	0.1045	5746.	0.0105
2770.	0.1053	5747.	0.0072
2771.	0.1036	5748.	0.0095
2772.	0.1004	5749.	0.009
2773.	0.1006	5750.	0.0097
2774.	0.1009	5751.	0.0095
2775.	0.1039	5752.	0.0101
2776.	0.1015	5753.	0.0124
2777.	0.1008	5754.	0.0081
2778.	0.1037	5755.	0.0096
2779.	0.1003	5756.	0.0099
2780.	0.103	5757.	0.0075
2781.	0.1018	5758.	0.0064
2782.	0.1014	5759.	0.0086
2783.	0.1006	5760.	0.005
2784.	0.1009	5761.	0.0055
2785.	0.1025	5762.	0.0048
2786.	0.1021	5763.	0.0058
2787.	0.1046	5764.	0.0065
2788.	0.1006	5765.	0.0063
2789.	0.103	5766.	0.0055
2790.	0.1007	5767.	0.008
2791.	0.1012	5768.	0.0073
2792.	0.097	5769.	0.006
2793.	0.1009	5770.	0.0066
2794.	0.0977	5771.	0.0076
2795.	0.0995	5772.	0.0084
2796.	0.1021	5773.	0.0063
2797.	0.0977	5774.	0.006
2798.	0.1019	5775.	0.0084
2799.	0.0994	5776.	0.0081
2800.	0.0991	5777.	0.0054
2801.	0.0994	5778.	0.0096
2802.	0.1008	5779.	0.007

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2803.	0.0977	5780.	0.01
2804.	0.0996	5781.	0.007
2805.	0.1001	5782.	0.0055
2806.	0.0994	5783.	0.0074
2807.	0.0986	5784.	0.0091
2808.	0.1024	5785.	0.008
2809.	0.1014	5786.	0.0055
2810.	0.1015	5787.	0.0069
2811.	0.0968	5788.	0.0078
2812.	0.1016	5789.	0.0075
2813.	0.0983	5790.	0.0065
2814.	0.0985	5791.	0.0092
2815.	0.0974	5792.	0.0058
2816.	0.099	5793.	0.0081
2817.	0.0991	5794.	0.0087
2818.	0.1003	5795.	0.0089
2819.	0.0987	5796.	0.0104
2820.	0.0968	5797.	0.0084
2821.	0.0984	5798.	0.0059
2822.	0.0965	5799.	0.0078
2823.	0.0965	5800.	0.0077
2824.	0.1004	5801.	0.0074
2825.	0.1014	5802.	0.0071
2826.	0.0991	5803.	0.0113
2827.	0.0987	5804.	0.008
2828.	0.1006	5805.	0.0083
2829.	0.1005	5806.	0.0074
2830.	0.0995	5807.	0.0073
2831.	0.1006	5808.	0.0047
2832.	0.0968	5809.	0.0068
2833.	0.1018	5810.	0.0091
2834.	0.096	5811.	0.0068
2835.	0.0982	5812.	0.0063
2836.	0.0965	5813.	0.0107
2837.	0.096	5814.	0.0086
2838.	0.0972	5815.	0.0067
2839.	0.0991	5816.	0.0081
2840.	0.0972	5817.	0.0075
2841.	0.1001	5818.	0.0062
2842.	0.098	5819.	0.0073
2843.	0.0957	5820.	0.005
2844.	0.0965	5821.	0.0047
2845.	0.0967	5822.	0.0063
2846.	0.0977	5823.	0.0095
2847.	0.0966	5824.	0.0052
2848.	0.0979	5825.	0.0047
2849.	0.0984	5826.	0.0063
2850.	0.097	5827.	0.0078
2851.	0.0956	5828.	0.006
2852.	0.0979	5829.	0.007
2853.	0.0975	5830.	0.0099
2854.	0.0986	5831.	0.0078
2855.	0.0963	5832.	0.0101
2856.	0.0999	5833.	0.0053
2857.	0.1001	5834.	0.0097
2858.	0.0984	5835.	0.0062
2859.	0.0989	5836.	0.0059
2860.	0.0972	5837.	0.004
2861.	0.0968	5838.	0.0079
2862.	0.0939	5839.	0.0056
2863.	0.0972	5840.	0.0039
2864.	0.0986	5841.	0.0095
2865.	0.0999	5842.	0.006
2866.	0.0987	5843.	0.0029
2867.	0.0972	5844.	0.0077
2868.	0.0985	5845.	0.0051

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2869.	0.0944	5846.	0.0042
2870.	0.0986	5847.	0.0045
2871.	0.0975	5848.	0.0028
2872.	0.0969	5849.	0.0039
2873.	0.0987	5850.	0.0051
2874.	0.097	5851.	0.0069
2875.	0.0977	5852.	0.0067
2876.	0.096	5853.	0.0062
2877.	0.0962	5854.	0.0075
2878.	0.0956	5855.	0.0073
2879.	0.0987	5856.	0.0064
2880.	0.0972	5857.	0.0059
2881.	0.098	5858.	0.005
2882.	0.0977	5859.	0.0043
2883.	0.0982	5860.	0.0057
2884.	0.0982	5861.	0.0093
2885.	0.0991	5862.	0.0041
2886.	0.0968	5863.	0.0083
2887.	0.1036	5864.	0.0075
2888.	0.0968	5865.	0.0058
2889.	0.0972	5866.	0.0053
2890.	0.0977	5867.	0.0047
2891.	0.0985	5868.	0.0061
2892.	0.0992	5869.	0.0068
2893.	0.1001	5870.	0.0046
2894.	0.0988	5871.	0.008
2895.	0.0963	5872.	0.0056
2896.	0.0989	5873.	0.0054
2897.	0.0958	5874.	0.007
2898.	0.0961	5875.	0.0048
2899.	0.097	5876.	0.0055
2900.	0.0959	5877.	0.0079
2901.	0.0948	5878.	0.0035
2902.	0.0962	5879.	0.0084
2903.	0.101	5880.	0.0046
2904.	0.0951	5881.	0.0044
2905.	0.0977	5882.	0.0055
2906.	0.0956	5883.	0.0077
2907.	0.0984	5884.	0.0059
2908.	0.0946	5885.	0.0032
2909.	0.0984	5886.	0.0076
2910.	0.0968	5887.	0.0043
2911.	0.097	5888.	0.0036
2912.	0.0979	5889.	0.0015
2913.	0.0975	5890.	0.0054
2914.	0.0937	5891.	0.0078
2915.	0.0976	5892.	0.005
2916.	0.0984	5893.	0.0068
2917.	0.0983	5894.	0.0051
2918.	0.0968	5895.	0.0048
2919.	0.096	5896.	0.0049
2920.	0.0955	5897.	0.006
2921.	0.096	5898.	0.0039
2922.	0.0953	5899.	0.0074
2923.	0.096	5900.	0.0066
2924.	0.099	5901.	0.0048
2925.	0.0963	5902.	0.0043
2926.	0.095	5903.	0.0021
2927.	0.0929	5904.	0.0054
2928.	0.0965	5905.	0.0033
2929.	0.0951	5906.	0.0068
2930.	0.0935	5907.	0.0081
2931.	0.0934	5908.	0.0044
2932.	0.0963	5909.	0.0061
2933.	0.0964	5910.	0.0036
2934.	0.0948	5911.	0.0049

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2935.	0.0949	5912.	0.0031
2936.	0.0941	5913.	0.0021
2937.	0.0941	5914.	0.0013
2938.	0.0926	5915.	0.0028
2939.	0.096	5916.	0.0049
2940.	0.0951	5917.	0.0029
2941.	0.0967	5918.	0.0084
2942.	0.0951	5919.	0.0024
2943.	0.0971	5920.	0.0067
2944.	0.0907	5921.	0.0035
2945.	0.0934	5922.	0.0041
2946.	0.0934	5923.	0.0071
2947.	0.0932	5924.	0.0027
2948.	0.0953	5925.	0.0046
2949.	0.0946	5926.	0.0019
2950.	0.0945	5927.	0.0046
2951.	0.0922	5928.	0.0019
2952.	0.0915	5929.	0.0062
2953.	0.0898	5930.	0.0029
2954.	0.0958	5931.	0.0024
2955.	0.0925	5932.	0.0036
2956.	0.0948	5933.	0.0024
2957.	0.0924	5934.	0.0036
2958.	0.0958	5935.	0.0038
2959.	0.0983	5936.	0.0049
2960.	0.0929	5937.	0.0056
2961.	0.0935	5938.	0.0054
2962.	0.0966	5939.	0.0008
2963.	0.0941	5940.	0.0027
2964.	0.0936	5941.	0.0033
2965.	0.0948	5942.	0.0022
2966.	0.0915	5943.	0.0069
2967.	0.0896	5944.	0.0017
2968.	0.0924	5945.	0.0039
2969.	0.0919	5946.	0.0012
2970.	0.0948	5947.	0.0027
2971.	0.0912	5948.	0.0002
2972.	0.0929	5949.	0.0028
2973.	0.0914	5950.	0.0013
2974.	0.0922	5951.	0.0031
2975.	0.0944	5952.	0.0012
2976.	0.0925		

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.479

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	2.019E-5	cm/sec
y0	0.4359	ft

T = K*b = 0.009183 cm²/sec

Aquifer Slug Test Data

Well MW-7

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:20:48

PROJECT INFORMATION

Company: ERM
Client: Elon
Location: NC
Test Date: 5/2014
Test Well: MW-7

AQUIFER DATA

Saturated Thickness: 7.9 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: MW-7

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.742 ft
Static Water Column Height: 7.9 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 1. ft
Screen Length: 7.9 ft
Total Well Penetration Depth: 7.9 ft

No. of Observations: 3024

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	0.951	3024.	0.177
2.	0.947	3026.	0.173
4.	0.946	3028.	0.176
6.	0.944	3030.	0.172
8.	0.929	3032.	0.173
10.	0.944	3034.	0.177
12.	0.941	3036.	0.175
14.	0.942	3038.	0.172
16.	0.941	3040.	0.172
18.	0.94	3042.	0.173
20.	0.937	3044.	0.173
22.	0.935	3046.	0.173
24.	0.932	3048.	0.175
26.	0.933	3050.	0.175
28.	0.933	3052.	0.169
30.	0.927	3054.	0.17
32.	0.861	3056.	0.172
34.	0.92	3058.	0.173
36.	0.894	3060.	0.175
38.	1.04	3062.	0.173
40.	1.012	3064.	0.174
42.	0.913	3066.	0.171
44.	0.822	3068.	0.169
46.	0.917	3070.	0.169
48.	0.912	3072.	0.167
50.	0.911	3074.	0.168
52.	0.91	3076.	0.17
54.	0.912	3078.	0.17
56.	0.908	3080.	0.169
58.	0.903	3082.	0.171
60.	0.886	3084.	0.169

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	0.911	3086.	0.165
64.	0.907	3088.	0.17
66.	0.901	3090.	0.169
68.	0.9	3092.	0.167
70.	0.9	3094.	0.166
72.	0.899	3096.	0.167
74.	0.9	3098.	0.166
76.	0.9	3100.	0.168
78.	0.895	3102.	0.167
80.	0.89	3104.	0.164
82.	0.892	3106.	0.166
84.	0.89	3108.	0.164
86.	0.89	3110.	0.166
88.	0.886	3112.	0.166
90.	0.888	3114.	0.166
92.	0.883	3116.	0.166
94.	0.884	3118.	0.166
96.	0.88	3120.	0.164
98.	0.884	3122.	0.162
100.	0.882	3124.	0.164
102.	0.878	3126.	0.166
104.	0.875	3128.	0.161
106.	0.873	3130.	0.159
108.	0.875	3132.	0.163
110.	0.873	3134.	0.164
112.	0.869	3136.	0.162
114.	0.869	3138.	0.163
116.	0.867	3140.	0.164
118.	0.865	3142.	0.161
120.	0.866	3144.	0.163
122.	0.86	3146.	0.163
124.	0.86	3148.	0.158
126.	0.858	3150.	0.164
128.	0.859	3152.	0.162
130.	0.86	3154.	0.161
132.	0.861	3156.	0.163
134.	0.854	3158.	0.16
136.	0.855	3160.	0.162
138.	0.85	3162.	0.159
140.	0.85	3164.	0.158
142.	0.851	3166.	0.159
144.	0.849	3168.	0.162
146.	0.843	3170.	0.156
148.	0.845	3172.	0.16
150.	0.845	3174.	0.158
152.	0.844	3176.	0.155
154.	0.842	3178.	0.159
156.	0.84	3180.	0.159
158.	0.837	3182.	0.158
160.	0.84	3184.	0.159
162.	0.835	3186.	0.155
164.	0.832	3188.	0.158
166.	0.831	3190.	0.155
168.	0.831	3192.	0.155
170.	0.828	3194.	0.157
172.	0.83	3196.	0.156
174.	0.829	3198.	0.155
176.	0.827	3200.	0.156
178.	0.827	3202.	0.156
180.	0.823	3204.	0.155
182.	0.824	3206.	0.156
184.	0.824	3208.	0.155
186.	0.823	3210.	0.156
188.	0.822	3212.	0.154
190.	0.818	3214.	0.156
192.	0.817	3216.	0.155

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	0.814	3218.	0.153
196.	0.813	3220.	0.151
198.	0.812	3222.	0.15
200.	0.812	3224.	0.151
202.	0.808	3226.	0.152
204.	0.809	3228.	0.152
206.	0.808	3230.	0.153
208.	0.809	3232.	0.154
210.	0.806	3234.	0.155
212.	0.804	3236.	0.152
214.	0.804	3238.	0.15
216.	0.806	3240.	0.15
218.	0.806	3242.	0.149
220.	0.806	3244.	0.154
222.	0.805	3246.	0.15
224.	0.797	3248.	0.149
226.	0.801	3250.	0.147
228.	0.8	3252.	0.151
230.	0.798	3254.	0.149
232.	0.797	3256.	0.151
234.	0.798	3258.	0.151
236.	0.795	3260.	0.147
238.	0.792	3262.	0.148
240.	0.792	3264.	0.15
242.	0.796	3266.	0.148
244.	0.795	3268.	0.154
246.	0.793	3270.	0.148
248.	0.791	3272.	0.147
250.	0.787	3274.	0.148
252.	0.789	3276.	0.147
254.	0.789	3278.	0.147
256.	0.787	3280.	0.149
258.	0.786	3282.	0.148
260.	0.786	3284.	0.149
262.	0.787	3286.	0.148
264.	0.785	3288.	0.148
266.	0.788	3290.	0.15
268.	0.784	3292.	0.145
270.	0.78	3294.	0.145
272.	0.776	3296.	0.146
274.	0.779	3298.	0.143
276.	0.779	3300.	0.145
278.	0.779	3302.	0.143
280.	0.77	3304.	0.143
282.	0.773	3306.	0.145
284.	0.777	3308.	0.143
286.	0.775	3310.	0.142
288.	0.773	3312.	0.14
290.	0.771	3314.	0.144
292.	0.772	3316.	0.142
294.	0.77	3318.	0.144
296.	0.769	3320.	0.143
298.	0.768	3322.	0.144
300.	0.769	3324.	0.142
302.	0.763	3326.	0.146
304.	0.768	3328.	0.144
306.	0.763	3330.	0.145
308.	0.763	3332.	0.143
310.	0.762	3334.	0.144
312.	0.762	3336.	0.14
314.	0.763	3338.	0.142
316.	0.759	3340.	0.142
318.	0.763	3342.	0.139
320.	0.758	3344.	0.142
322.	0.758	3346.	0.142
324.	0.757	3348.	0.138

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	0.755	3350.	0.139
328.	0.756	3352.	0.141
330.	0.754	3354.	0.139
332.	0.75	3356.	0.14
334.	0.751	3358.	0.14
336.	0.749	3360.	0.138
338.	0.752	3362.	0.14
340.	0.75	3364.	0.139
342.	0.748	3366.	0.139
344.	0.748	3368.	0.138
346.	0.746	3370.	0.139
348.	0.747	3372.	0.139
350.	0.747	3374.	0.142
352.	0.743	3376.	0.138
354.	0.739	3378.	0.138
356.	0.742	3380.	0.137
358.	0.738	3382.	0.139
360.	0.738	3384.	0.136
362.	0.74	3386.	0.135
364.	0.74	3388.	0.139
366.	0.738	3390.	0.138
368.	0.735	3392.	0.139
370.	0.735	3394.	0.14
372.	0.735	3396.	0.135
374.	0.734	3398.	0.14
376.	0.73	3400.	0.139
378.	0.733	3402.	0.137
380.	0.732	3404.	0.136
382.	0.73	3406.	0.138
384.	0.729	3408.	0.138
386.	0.737	3410.	0.137
388.	0.831	3412.	0.139
390.	0.818	3414.	0.138
392.	0.822	3416.	0.135
394.	0.818	3418.	0.136
396.	0.817	3420.	0.133
398.	0.817	3422.	0.135
400.	0.814	3424.	0.136
402.	0.812	3426.	0.135
404.	0.811	3428.	0.135
406.	0.809	3430.	0.134
408.	0.804	3432.	0.135
410.	0.806	3434.	0.134
412.	0.809	3436.	0.13
414.	0.805	3438.	0.133
416.	0.804	3440.	0.134
418.	0.803	3442.	0.133
420.	0.806	3444.	0.134
422.	0.828	3446.	0.13
424.	0.804	3448.	0.133
426.	0.806	3450.	0.136
428.	0.803	3452.	0.132
430.	0.803	3454.	0.133
432.	0.797	3456.	0.135
434.	0.802	3458.	0.13
436.	0.796	3460.	0.133
438.	0.798	3462.	0.129
440.	0.794	3464.	0.134
442.	0.795	3466.	0.133
444.	0.796	3468.	0.132
446.	0.795	3470.	0.131
448.	0.789	3472.	0.135
450.	0.792	3474.	0.13
452.	0.789	3476.	0.131
454.	0.79	3478.	0.129
456.	0.789	3480.	0.127

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
458.	0.786	3482.	0.129
460.	0.787	3484.	0.129
462.	0.786	3486.	0.129
464.	0.78	3488.	0.13
466.	0.784	3490.	0.128
468.	0.792	3492.	0.13
470.	0.785	3494.	0.129
472.	0.784	3496.	0.13
474.	0.787	3498.	0.129
476.	0.782	3500.	0.129
478.	0.783	3502.	0.128
480.	0.781	3504.	0.126
482.	0.786	3506.	0.125
484.	0.782	3508.	0.125
486.	0.782	3510.	0.122
488.	0.778	3512.	0.125
490.	0.779	3514.	0.126
492.	0.777	3516.	0.126
494.	0.777	3518.	0.128
496.	0.779	3520.	0.127
498.	0.778	3522.	0.124
500.	0.777	3524.	0.126
502.	0.775	3526.	0.125
504.	0.776	3528.	0.125
506.	0.773	3530.	0.123
508.	0.767	3532.	0.128
510.	0.772	3534.	0.125
512.	0.771	3536.	0.127
514.	0.77	3538.	0.126
516.	0.766	3540.	0.124
518.	0.765	3542.	0.127
520.	0.765	3544.	0.125
522.	0.765	3546.	0.123
524.	0.764	3548.	0.125
526.	0.766	3550.	0.124
528.	0.763	3552.	0.122
530.	0.762	3554.	0.126
532.	0.761	3556.	0.123
534.	0.763	3558.	0.122
536.	0.762	3560.	0.123
538.	0.76	3562.	0.123
540.	0.757	3564.	0.121
542.	0.758	3566.	0.123
544.	0.759	3568.	0.12
546.	0.756	3570.	0.119
548.	0.751	3572.	0.121
550.	0.758	3574.	0.123
552.	0.751	3576.	0.12
554.	0.751	3578.	0.125
556.	0.753	3580.	0.122
558.	0.75	3582.	0.122
560.	0.752	3584.	0.121
562.	0.749	3586.	0.118
564.	0.742	3588.	0.121
566.	0.745	3590.	0.119
568.	0.75	3592.	0.119
570.	0.745	3594.	0.121
572.	0.748	3596.	0.117
574.	0.746	3598.	0.12
576.	0.748	3600.	0.119
578.	0.746	3602.	0.121
580.	0.744	3604.	0.114
582.	0.742	3606.	0.118
584.	0.74	3608.	0.116
586.	0.739	3610.	0.116
588.	0.737	3612.	0.117

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
590.	0.741	3614.	0.117
592.	0.736	3616.	0.117
594.	0.732	3618.	0.113
596.	0.734	3620.	0.116
598.	0.732	3622.	0.112
600.	0.73	3624.	0.116
602.	0.733	3626.	0.118
604.	0.73	3628.	0.115
606.	0.726	3630.	0.116
608.	0.727	3632.	0.115
610.	0.726	3634.	0.11
612.	0.729	3636.	0.117
614.	0.73	3638.	0.118
616.	0.728	3640.	0.115
618.	0.723	3642.	0.116
620.	0.725	3644.	0.116
622.	0.724	3646.	0.115
624.	0.72	3648.	0.115
626.	0.725	3650.	0.114
628.	0.721	3652.	0.115
630.	0.722	3654.	0.117
632.	0.722	3656.	0.116
634.	0.723	3658.	0.112
636.	0.719	3660.	0.115
638.	0.723	3662.	0.114
640.	0.72	3664.	0.113
642.	0.722	3666.	0.113
644.	0.715	3668.	0.111
646.	0.715	3670.	0.112
648.	0.716	3672.	0.113
650.	0.716	3674.	0.112
652.	0.713	3676.	0.114
654.	0.71	3678.	0.116
656.	0.708	3680.	0.113
658.	0.712	3682.	0.11
660.	0.705	3684.	0.11
662.	0.707	3686.	0.112
664.	0.706	3688.	0.113
666.	0.704	3690.	0.111
668.	0.706	3692.	0.113
670.	0.705	3694.	0.115
672.	0.704	3696.	0.114
674.	0.702	3698.	0.113
676.	0.702	3700.	0.112
678.	0.703	3702.	0.114
680.	0.7	3704.	0.115
682.	0.7	3706.	0.115
684.	0.697	3708.	0.112
686.	0.7	3710.	0.112
688.	0.698	3712.	0.112
690.	0.698	3714.	0.111
692.	0.695	3716.	0.111
694.	0.696	3718.	0.111
696.	0.696	3720.	0.113
698.	0.693	3722.	0.109
700.	0.691	3724.	0.11
702.	0.69	3726.	0.103
704.	0.687	3728.	0.112
706.	0.691	3730.	0.107
708.	0.691	3732.	0.109
710.	0.689	3734.	0.111
712.	0.693	3736.	0.108
714.	0.687	3738.	0.106
716.	0.685	3740.	0.109
718.	0.685	3742.	0.11
720.	0.684	3744.	0.109

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
722.	0.681	3746.	0.11
724.	0.68	3748.	0.109
726.	0.685	3750.	0.11
728.	0.679	3752.	0.111
730.	0.68	3754.	0.11
732.	0.679	3756.	0.107
734.	0.679	3758.	0.107
736.	0.681	3760.	0.108
738.	0.679	3762.	0.106
740.	0.678	3764.	0.106
742.	0.68	3766.	0.109
744.	0.673	3768.	0.108
746.	0.678	3770.	0.107
748.	0.678	3772.	0.105
750.	0.676	3774.	0.107
752.	0.672	3776.	0.101
754.	0.674	3778.	0.106
756.	0.667	3780.	0.106
758.	0.673	3782.	0.105
760.	0.67	3784.	0.106
762.	0.674	3786.	0.108
764.	0.675	3788.	0.105
766.	0.671	3790.	0.103
768.	0.673	3792.	0.102
770.	0.667	3794.	0.104
772.	0.668	3796.	0.105
774.	0.666	3798.	0.104
776.	0.666	3800.	0.105
778.	0.662	3802.	0.104
780.	0.66	3804.	0.104
782.	0.664	3806.	0.105
784.	0.663	3808.	0.106
786.	0.66	3810.	0.102
788.	0.66	3812.	0.102
790.	0.659	3814.	0.104
792.	0.659	3816.	0.105
794.	0.659	3818.	0.103
796.	0.655	3820.	0.101
798.	0.657	3822.	0.099
800.	0.655	3824.	0.097
802.	0.654	3826.	0.11
804.	0.653	3828.	0.101
806.	0.655	3830.	0.102
808.	0.653	3832.	0.099
810.	0.654	3834.	0.101
812.	0.652	3836.	0.092
814.	0.654	3838.	0.101
816.	0.646	3840.	0.097
818.	0.649	3842.	0.1
820.	0.649	3844.	0.1
822.	0.646	3846.	0.097
824.	0.648	3848.	0.097
826.	0.648	3850.	0.097
828.	0.647	3852.	0.098
830.	0.645	3854.	0.095
832.	0.643	3856.	0.097
834.	0.644	3858.	0.094
836.	0.645	3860.	0.093
838.	0.643	3862.	0.093
840.	0.641	3864.	0.097
842.	0.64	3866.	0.094
844.	0.638	3868.	0.097
846.	0.641	3870.	0.093
848.	0.638	3872.	0.096
850.	0.638	3874.	0.098
852.	0.638	3876.	0.091

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
854.	0.636	3878.	0.096
856.	0.635	3880.	0.096
858.	0.633	3882.	0.094
860.	0.637	3884.	0.096
862.	0.631	3886.	0.096
864.	0.634	3888.	0.095
866.	0.636	3890.	0.091
868.	0.634	3892.	0.096
870.	0.631	3894.	0.094
872.	0.632	3896.	0.094
874.	0.632	3898.	0.093
876.	0.627	3900.	0.095
878.	0.625	3902.	0.092
880.	0.628	3904.	0.094
882.	0.628	3906.	0.094
884.	0.622	3908.	0.093
886.	0.626	3910.	0.095
888.	0.626	3912.	0.093
890.	0.626	3914.	0.093
892.	0.623	3916.	0.091
894.	0.623	3918.	0.092
896.	0.622	3920.	0.091
898.	0.619	3922.	0.09
900.	0.622	3924.	0.091
902.	0.619	3926.	0.092
904.	0.62	3928.	0.091
906.	0.616	3930.	0.091
908.	0.616	3932.	0.092
910.	0.62	3934.	0.09
912.	0.616	3936.	0.091
914.	0.618	3938.	0.089
916.	0.618	3940.	0.09
918.	0.615	3942.	0.09
920.	0.615	3944.	0.089
922.	0.613	3946.	0.089
924.	0.616	3948.	0.093
926.	0.612	3950.	0.09
928.	0.61	3952.	0.091
930.	0.613	3954.	0.089
932.	0.61	3956.	0.089
934.	0.605	3958.	0.09
936.	0.606	3960.	0.091
938.	0.608	3962.	0.088
940.	0.609	3964.	0.088
942.	0.606	3966.	0.085
944.	0.609	3968.	0.087
946.	0.605	3970.	0.089
948.	0.605	3972.	0.094
950.	0.607	3974.	0.091
952.	0.607	3976.	0.089
954.	0.608	3978.	0.089
956.	0.6	3980.	0.089
958.	0.604	3982.	0.088
960.	0.601	3984.	0.086
962.	0.598	3986.	0.09
964.	0.599	3988.	0.085
966.	0.601	3990.	0.087
968.	0.598	3992.	0.088
970.	0.6	3994.	0.087
972.	0.598	3996.	0.093
974.	0.598	3998.	0.092
976.	0.597	4000.	0.088
978.	0.594	4002.	0.091
980.	0.594	4004.	0.092
982.	0.594	4006.	0.091
984.	0.593	4008.	0.09

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
986.	0.595	4010.	0.093
988.	0.594	4012.	0.091
990.	0.591	4014.	0.085
992.	0.59	4016.	0.092
994.	0.59	4018.	0.088
996.	0.591	4020.	0.087
998.	0.588	4022.	0.091
1000.	0.587	4024.	0.087
1002.	0.59	4026.	0.087
1004.	0.59	4028.	0.087
1006.	0.587	4030.	0.086
1008.	0.586	4032.	0.088
1010.	0.583	4034.	0.089
1012.	0.58	4036.	0.084
1014.	0.578	4038.	0.087
1016.	0.58	4040.	0.087
1018.	0.585	4042.	0.089
1020.	0.579	4044.	0.085
1022.	0.578	4046.	0.088
1024.	0.578	4048.	0.081
1026.	0.575	4050.	0.083
1028.	0.577	4052.	0.083
1030.	0.576	4054.	0.085
1032.	0.579	4056.	0.083
1034.	0.571	4058.	0.083
1036.	0.572	4060.	0.082
1038.	0.577	4062.	0.082
1040.	0.573	4064.	0.081
1042.	0.568	4066.	0.079
1044.	0.57	4068.	0.082
1046.	0.567	4070.	0.076
1048.	0.568	4072.	0.082
1050.	0.569	4074.	0.081
1052.	0.568	4076.	0.085
1054.	0.567	4078.	0.081
1056.	0.567	4080.	0.083
1058.	0.569	4082.	0.08
1060.	0.565	4084.	0.082
1062.	0.566	4086.	0.077
1064.	0.564	4088.	0.079
1066.	0.564	4090.	0.081
1068.	0.563	4092.	0.084
1070.	0.561	4094.	0.082
1072.	0.562	4096.	0.081
1074.	0.559	4098.	0.078
1076.	0.56	4100.	0.079
1078.	0.562	4102.	0.081
1080.	0.56	4104.	0.077
1082.	0.559	4106.	0.075
1084.	0.558	4108.	0.083
1086.	0.556	4110.	0.079
1088.	0.557	4112.	0.079
1090.	0.558	4114.	0.079
1092.	0.556	4116.	0.078
1094.	0.557	4118.	0.078
1096.	0.556	4120.	0.084
1098.	0.554	4122.	0.078
1100.	0.555	4124.	0.079
1102.	0.553	4126.	0.08
1104.	0.551	4128.	0.076
1106.	0.551	4130.	0.078
1108.	0.55	4132.	0.078
1110.	0.549	4134.	0.075
1112.	0.551	4136.	0.078
1114.	0.55	4138.	0.075
1116.	0.548	4140.	0.074

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1118.	0.548	4142.	0.076
1120.	0.546	4144.	0.076
1122.	0.546	4146.	0.077
1124.	0.548	4148.	0.074
1126.	0.549	4150.	0.078
1128.	0.544	4152.	0.079
1130.	0.544	4154.	0.076
1132.	0.54	4156.	0.077
1134.	0.541	4158.	0.076
1136.	0.541	4160.	0.078
1138.	0.541	4162.	0.076
1140.	0.542	4164.	0.076
1142.	0.542	4166.	0.072
1144.	0.537	4168.	0.078
1146.	0.542	4170.	0.075
1148.	0.538	4172.	0.075
1150.	0.538	4174.	0.078
1152.	0.534	4176.	0.075
1154.	0.535	4178.	0.074
1156.	0.537	4180.	0.075
1158.	0.535	4182.	0.093
1160.	0.532	4184.	0.075
1162.	0.533	4186.	0.074
1164.	0.535	4188.	0.073
1166.	0.533	4190.	0.075
1168.	0.532	4192.	0.072
1170.	0.533	4194.	0.075
1172.	0.529	4196.	0.073
1174.	0.528	4198.	0.07
1176.	0.532	4200.	0.073
1178.	0.529	4202.	0.074
1180.	0.527	4204.	0.072
1182.	0.525	4206.	0.075
1184.	0.527	4208.	0.071
1186.	0.527	4210.	0.072
1188.	0.526	4212.	0.074
1190.	0.529	4214.	0.079
1192.	0.527	4216.	0.076
1194.	0.529	4218.	0.075
1196.	0.526	4220.	0.075
1198.	0.526	4222.	0.075
1200.	0.525	4224.	0.073
1202.	0.524	4226.	0.077
1204.	0.527	4228.	0.078
1206.	0.526	4230.	0.072
1208.	0.527	4232.	0.076
1210.	0.524	4234.	0.074
1212.	0.52	4236.	0.076
1214.	0.525	4238.	0.075
1216.	0.521	4240.	0.073
1218.	0.519	4242.	0.076
1220.	0.522	4244.	0.077
1222.	0.522	4246.	0.074
1224.	0.518	4248.	0.075
1226.	0.521	4250.	0.072
1228.	0.521	4252.	0.075
1230.	0.52	4254.	0.074
1232.	0.518	4256.	0.075
1234.	0.515	4258.	0.076
1236.	0.514	4260.	0.073
1238.	0.514	4262.	0.073
1240.	0.516	4264.	0.073
1242.	0.516	4266.	0.073
1244.	0.514	4268.	0.073
1246.	0.514	4270.	0.07
1248.	0.514	4272.	0.072

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1250.	0.51	4274.	0.074
1252.	0.512	4276.	0.073
1254.	0.513	4278.	0.069
1256.	0.514	4280.	0.072
1258.	0.51	4282.	0.073
1260.	0.51	4284.	0.073
1262.	0.509	4286.	0.069
1264.	0.511	4288.	0.069
1266.	0.503	4290.	0.073
1268.	0.508	4292.	0.071
1270.	0.505	4294.	0.073
1272.	0.507	4296.	0.071
1274.	0.505	4298.	0.071
1276.	0.504	4300.	0.07
1278.	0.506	4302.	0.07
1280.	0.503	4304.	0.071
1282.	0.499	4306.	0.074
1284.	0.501	4308.	0.07
1286.	0.502	4310.	0.073
1288.	0.5	4312.	0.069
1290.	0.499	4314.	0.07
1292.	0.499	4316.	0.066
1294.	0.501	4318.	0.07
1296.	0.498	4320.	0.071
1298.	0.496	4322.	0.067
1300.	0.499	4324.	0.068
1302.	0.494	4326.	0.07
1304.	0.495	4328.	0.071
1306.	0.491	4330.	0.068
1308.	0.49	4332.	0.069
1310.	0.495	4334.	0.068
1312.	0.492	4336.	0.066
1314.	0.495	4338.	0.067
1316.	0.49	4340.	0.068
1318.	0.492	4342.	0.071
1320.	0.491	4344.	0.069
1322.	0.489	4346.	0.069
1324.	0.488	4348.	0.07
1326.	0.487	4350.	0.069
1328.	0.487	4352.	0.068
1330.	0.489	4354.	0.067
1332.	0.489	4356.	0.069
1334.	0.486	4358.	0.068
1336.	0.487	4360.	0.068
1338.	0.487	4362.	0.071
1340.	0.487	4364.	0.068
1342.	0.487	4366.	0.071
1344.	0.487	4368.	0.067
1346.	0.483	4370.	0.067
1348.	0.481	4372.	0.069
1350.	0.485	4374.	0.065
1352.	0.483	4376.	0.068
1354.	0.482	4378.	0.068
1356.	0.48	4380.	0.066
1358.	0.479	4382.	0.067
1360.	0.482	4384.	0.067
1362.	0.48	4386.	0.065
1364.	0.48	4388.	0.067
1366.	0.48	4390.	0.066
1368.	0.48	4392.	0.07
1370.	0.479	4394.	0.065
1372.	0.475	4396.	0.069
1374.	0.476	4398.	0.063
1376.	0.478	4400.	0.066
1378.	0.477	4402.	0.063
1380.	0.479	4404.	0.07

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1382.	0.47	4406.	0.065
1384.	0.476	4408.	0.064
1386.	0.475	4410.	0.065
1388.	0.476	4412.	0.067
1390.	0.47	4414.	0.063
1392.	0.474	4416.	0.065
1394.	0.469	4418.	0.065
1396.	0.472	4420.	0.065
1398.	0.468	4422.	0.064
1400.	0.468	4424.	0.064
1402.	0.47	4426.	0.062
1404.	0.473	4428.	0.063
1406.	0.469	4430.	0.065
1408.	0.469	4432.	0.061
1410.	0.468	4434.	0.064
1412.	0.465	4436.	0.065
1414.	0.47	4438.	0.065
1416.	0.468	4440.	0.061
1418.	0.466	4442.	0.065
1420.	0.466	4444.	0.062
1422.	0.466	4446.	0.066
1424.	0.461	4448.	0.067
1426.	0.466	4450.	0.063
1428.	0.462	4452.	0.062
1430.	0.463	4454.	0.061
1432.	0.462	4456.	0.064
1434.	0.457	4458.	0.062
1436.	0.455	4460.	0.062
1438.	0.459	4462.	0.063
1440.	0.462	4464.	0.061
1442.	0.459	4466.	0.062
1444.	0.464	4468.	0.061
1446.	0.457	4470.	0.063
1448.	0.456	4472.	0.062
1450.	0.457	4474.	0.061
1452.	0.455	4476.	0.059
1454.	0.456	4478.	0.062
1456.	0.456	4480.	0.06
1458.	0.454	4482.	0.061
1460.	0.457	4484.	0.062
1462.	0.453	4486.	0.06
1464.	0.452	4488.	0.062
1466.	0.453	4490.	0.061
1468.	0.453	4492.	0.06
1470.	0.454	4494.	0.058
1472.	0.455	4496.	0.061
1474.	0.451	4498.	0.061
1476.	0.451	4500.	0.062
1478.	0.453	4502.	0.059
1480.	0.445	4504.	0.059
1482.	0.447	4506.	0.059
1484.	0.446	4508.	0.058
1486.	0.45	4510.	0.062
1488.	0.447	4512.	0.058
1490.	0.45	4514.	0.059
1492.	0.447	4516.	0.059
1494.	0.447	4518.	0.057
1496.	0.446	4520.	0.059
1498.	0.446	4522.	0.059
1500.	0.443	4524.	0.058
1502.	0.445	4526.	0.059
1504.	0.443	4528.	0.06
1506.	0.447	4530.	0.059
1508.	0.444	4532.	0.057
1510.	0.442	4534.	0.058
1512.	0.442	4536.	0.057

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1514.	0.439	4538.	0.057
1516.	0.441	4540.	0.058
1518.	0.442	4542.	0.057
1520.	0.438	4544.	0.057
1522.	0.44	4546.	0.059
1524.	0.438	4548.	0.061
1526.	0.433	4550.	0.058
1528.	0.438	4552.	0.057
1530.	0.434	4554.	0.059
1532.	0.436	4556.	0.056
1534.	0.437	4558.	0.06
1536.	0.435	4560.	0.057
1538.	0.436	4562.	0.056
1540.	0.435	4564.	0.054
1542.	0.435	4566.	0.055
1544.	0.429	4568.	0.059
1546.	0.435	4570.	0.051
1548.	0.435	4572.	0.054
1550.	0.428	4574.	0.054
1552.	0.43	4576.	0.059
1554.	0.429	4578.	0.055
1556.	0.43	4580.	0.056
1558.	0.432	4582.	0.052
1560.	0.433	4584.	0.053
1562.	0.431	4586.	0.055
1564.	0.431	4588.	0.056
1566.	0.426	4590.	0.052
1568.	0.423	4592.	0.058
1570.	0.423	4594.	0.047
1572.	0.419	4596.	0.056
1574.	0.42	4598.	0.056
1576.	0.424	4600.	0.056
1578.	0.422	4602.	0.053
1580.	0.419	4604.	0.054
1582.	0.418	4606.	0.054
1584.	0.419	4608.	0.057
1586.	0.42	4610.	0.056
1588.	0.415	4612.	0.052
1590.	0.416	4614.	0.055
1592.	0.417	4616.	0.053
1594.	0.418	4618.	0.054
1596.	0.426	4620.	0.052
1598.	0.418	4622.	0.054
1600.	0.417	4624.	0.055
1602.	0.418	4626.	0.055
1604.	0.416	4628.	0.055
1606.	0.414	4630.	0.055
1608.	0.415	4632.	0.054
1610.	0.412	4634.	0.053
1612.	0.412	4636.	0.052
1614.	0.412	4638.	0.053
1616.	0.416	4640.	0.052
1618.	0.415	4642.	0.052
1620.	0.409	4644.	0.052
1622.	0.415	4646.	0.053
1624.	0.412	4648.	0.051
1626.	0.411	4650.	0.053
1628.	0.41	4652.	0.053
1630.	0.408	4654.	0.052
1632.	0.409	4656.	0.052
1634.	0.409	4658.	0.056
1636.	0.405	4660.	0.051
1638.	0.408	4662.	0.052
1640.	0.409	4664.	0.054
1642.	0.405	4666.	0.05
1644.	0.41	4668.	0.055

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1646.	0.407	4670.	0.051
1648.	0.405	4672.	0.056
1650.	0.405	4674.	0.051
1652.	0.401	4676.	0.053
1654.	0.403	4678.	0.047
1656.	0.403	4680.	0.052
1658.	0.402	4682.	0.051
1660.	0.401	4684.	0.05
1662.	0.402	4686.	0.049
1664.	0.399	4688.	0.052
1666.	0.404	4690.	0.049
1668.	0.397	4692.	0.048
1670.	0.399	4694.	0.052
1672.	0.4	4696.	0.05
1674.	0.405	4698.	0.051
1676.	0.398	4700.	0.051
1678.	0.396	4702.	0.053
1680.	0.398	4704.	0.052
1682.	0.401	4706.	0.051
1684.	0.397	4708.	0.049
1686.	0.393	4710.	0.048
1688.	0.402	4712.	0.048
1690.	0.394	4714.	0.051
1692.	0.393	4716.	0.049
1694.	0.396	4718.	0.048
1696.	0.393	4720.	0.048
1698.	0.392	4722.	0.052
1700.	0.391	4724.	0.047
1702.	0.392	4726.	0.044
1704.	0.39	4728.	0.049
1706.	0.39	4730.	0.05
1708.	0.396	4732.	0.051
1710.	0.393	4734.	0.045
1712.	0.387	4736.	0.05
1714.	0.389	4738.	0.047
1716.	0.389	4740.	0.05
1718.	0.392	4742.	0.047
1720.	0.387	4744.	0.045
1722.	0.388	4746.	0.046
1724.	0.388	4748.	0.049
1726.	0.387	4750.	0.048
1728.	0.388	4752.	0.047
1730.	0.388	4754.	0.049
1732.	0.382	4756.	0.048
1734.	0.383	4758.	0.047
1736.	0.385	4760.	0.049
1738.	0.384	4762.	0.048
1740.	0.382	4764.	0.047
1742.	0.38	4766.	0.048
1744.	0.387	4768.	0.048
1746.	0.385	4770.	0.05
1748.	0.383	4772.	0.047
1750.	0.383	4774.	0.048
1752.	0.384	4776.	0.047
1754.	0.385	4778.	0.05
1756.	0.383	4780.	0.05
1758.	0.384	4782.	0.046
1760.	0.387	4784.	0.046
1762.	0.386	4786.	0.044
1764.	0.383	4788.	0.049
1766.	0.386	4790.	0.046
1768.	0.381	4792.	0.046
1770.	0.378	4794.	0.048
1772.	0.382	4796.	0.044
1774.	0.378	4798.	0.045
1776.	0.378	4800.	0.042

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1778.	0.379	4802.	0.044
1780.	0.378	4804.	0.042
1782.	0.379	4806.	0.044
1784.	0.377	4808.	0.045
1786.	0.382	4810.	0.043
1788.	0.377	4812.	0.045
1790.	0.375	4814.	0.043
1792.	0.379	4816.	0.044
1794.	0.375	4818.	0.043
1796.	0.378	4820.	0.04
1798.	0.376	4822.	0.044
1800.	0.376	4824.	0.041
1802.	0.376	4826.	0.042
1804.	0.374	4828.	0.041
1806.	0.374	4830.	0.04
1808.	0.374	4832.	0.038
1810.	0.37	4834.	0.038
1812.	0.372	4836.	0.04
1814.	0.374	4838.	0.041
1816.	0.372	4840.	0.04
1818.	0.37	4842.	0.041
1820.	0.371	4844.	0.04
1822.	0.368	4846.	0.042
1824.	0.371	4848.	0.042
1826.	0.371	4850.	0.04
1828.	0.364	4852.	0.04
1830.	0.371	4854.	0.041
1832.	0.368	4856.	0.043
1834.	0.367	4858.	0.04
1836.	0.368	4860.	0.038
1838.	0.366	4862.	0.039
1840.	0.364	4864.	0.04
1842.	0.365	4866.	0.041
1844.	0.366	4868.	0.041
1846.	0.365	4870.	0.038
1848.	0.362	4872.	0.039
1850.	0.364	4874.	0.038
1852.	0.365	4876.	0.037
1854.	0.364	4878.	0.04
1856.	0.361	4880.	0.041
1858.	0.361	4882.	0.041
1860.	0.36	4884.	0.042
1862.	0.362	4886.	0.036
1864.	0.36	4888.	0.039
1866.	0.363	4890.	0.04
1868.	0.359	4892.	0.039
1870.	0.358	4894.	0.05
1872.	0.36	4896.	0.037
1874.	0.359	4898.	0.038
1876.	0.356	4900.	0.035
1878.	0.358	4902.	0.038
1880.	0.356	4904.	0.037
1882.	0.356	4906.	0.039
1884.	0.357	4908.	0.034
1886.	0.359	4910.	0.038
1888.	0.359	4912.	0.038
1890.	0.356	4914.	0.035
1892.	0.353	4916.	0.034
1894.	0.356	4918.	0.038
1896.	0.354	4920.	0.037
1898.	0.352	4922.	0.036
1900.	0.354	4924.	0.037
1902.	0.354	4926.	0.034
1904.	0.352	4928.	0.035
1906.	0.352	4930.	0.037
1908.	0.351	4932.	0.036

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1910.	0.351	4934.	0.036
1912.	0.351	4936.	0.035
1914.	0.349	4938.	0.037
1916.	0.349	4940.	0.036
1918.	0.351	4942.	0.037
1920.	0.35	4944.	0.034
1922.	0.348	4946.	0.036
1924.	0.347	4948.	0.031
1926.	0.351	4950.	0.038
1928.	0.349	4952.	0.037
1930.	0.348	4954.	0.035
1932.	0.345	4956.	0.033
1934.	0.348	4958.	0.034
1936.	0.345	4960.	0.034
1938.	0.348	4962.	0.036
1940.	0.346	4964.	0.032
1942.	0.344	4966.	0.036
1944.	0.344	4968.	0.037
1946.	0.344	4970.	0.032
1948.	0.342	4972.	0.031
1950.	0.342	4974.	0.035
1952.	0.342	4976.	0.034
1954.	0.345	4978.	0.032
1956.	0.342	4980.	0.032
1958.	0.341	4982.	0.029
1960.	0.342	4984.	0.035
1962.	0.343	4986.	0.034
1964.	0.341	4988.	0.035
1966.	0.336	4990.	0.033
1968.	0.343	4992.	0.031
1970.	0.34	4994.	0.031
1972.	0.341	4996.	0.031
1974.	0.339	4998.	0.033
1976.	0.339	5000.	0.037
1978.	0.337	5002.	0.033
1980.	0.338	5004.	0.031
1982.	0.337	5006.	0.032
1984.	0.337	5008.	0.032
1986.	0.34	5010.	0.033
1988.	0.333	5012.	0.033
1990.	0.332	5014.	0.034
1992.	0.335	5016.	0.029
1994.	0.334	5018.	0.032
1996.	0.336	5020.	0.031
1998.	0.333	5022.	0.028
2000.	0.333	5024.	0.034
2002.	0.334	5026.	0.03
2004.	0.331	5028.	0.037
2006.	0.333	5030.	0.029
2008.	0.33	5032.	0.034
2010.	0.331	5034.	0.032
2012.	0.331	5036.	0.033
2014.	0.33	5038.	0.038
2016.	0.329	5040.	0.038
2018.	0.33	5042.	0.032
2020.	0.33	5044.	0.033
2022.	0.329	5046.	0.034
2024.	0.332	5048.	0.037
2026.	0.328	5050.	0.036
2028.	0.327	5052.	0.037
2030.	0.327	5054.	0.034
2032.	0.325	5056.	0.037
2034.	0.327	5058.	0.035
2036.	0.328	5060.	0.035
2038.	0.325	5062.	0.036
2040.	0.328	5064.	0.034

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2042.	0.325	5066.	0.032
2044.	0.324	5068.	0.034
2046.	0.326	5070.	0.033
2048.	0.323	5072.	0.035
2050.	0.322	5074.	0.035
2052.	0.324	5076.	0.031
2054.	0.32	5078.	0.028
2056.	0.321	5080.	0.032
2058.	0.32	5082.	0.029
2060.	0.322	5084.	0.033
2062.	0.318	5086.	0.033
2064.	0.321	5088.	0.035
2066.	0.319	5090.	0.037
2068.	0.32	5092.	0.035
2070.	0.316	5094.	0.033
2072.	0.317	5096.	0.032
2074.	0.318	5098.	0.035
2076.	0.32	5100.	0.033
2078.	0.318	5102.	0.033
2080.	0.318	5104.	0.033
2082.	0.314	5106.	0.034
2084.	0.316	5108.	0.032
2086.	0.314	5110.	0.034
2088.	0.313	5112.	0.034
2090.	0.313	5114.	0.032
2092.	0.315	5116.	0.032
2094.	0.315	5118.	0.033
2096.	0.313	5120.	0.033
2098.	0.313	5122.	0.032
2100.	0.318	5124.	0.034
2102.	0.312	5126.	0.033
2104.	0.309	5128.	0.03
2106.	0.316	5130.	0.031
2108.	0.312	5132.	0.031
2110.	0.312	5134.	0.033
2112.	0.31	5136.	0.03
2114.	0.309	5138.	0.032
2116.	0.31	5140.	0.031
2118.	0.311	5142.	0.029
2120.	0.31	5144.	0.031
2122.	0.311	5146.	0.028
2124.	0.31	5148.	0.032
2126.	0.31	5150.	0.03
2128.	0.307	5152.	0.031
2130.	0.308	5154.	0.027
2132.	0.306	5156.	0.032
2134.	0.306	5158.	0.029
2136.	0.308	5160.	0.028
2138.	0.308	5162.	0.033
2140.	0.307	5164.	0.027
2142.	0.306	5166.	0.034
2144.	0.304	5168.	0.03
2146.	0.304	5170.	0.029
2148.	0.307	5172.	0.031
2150.	0.303	5174.	0.027
2152.	0.305	5176.	0.028
2154.	0.304	5178.	0.03
2156.	0.303	5180.	0.03
2158.	0.303	5182.	0.032
2160.	0.304	5184.	0.029
2162.	0.298	5186.	0.031
2164.	0.302	5188.	0.028
2166.	0.304	5190.	0.029
2168.	0.301	5192.	0.031
2170.	0.298	5194.	0.028
2172.	0.301	5196.	0.029

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2174.	0.301	5198.	0.03
2176.	0.301	5200.	0.032
2178.	0.296	5202.	0.029
2180.	0.296	5204.	0.025
2182.	0.296	5206.	0.029
2184.	0.296	5208.	0.03
2186.	0.301	5210.	0.028
2188.	0.298	5212.	0.03
2190.	0.296	5214.	0.027
2192.	0.296	5216.	0.025
2194.	0.296	5218.	0.029
2196.	0.298	5220.	0.028
2198.	0.296	5222.	0.026
2200.	0.292	5224.	0.029
2202.	0.297	5226.	0.027
2204.	0.295	5228.	0.024
2206.	0.295	5230.	0.029
2208.	0.29	5232.	0.029
2210.	0.295	5234.	0.028
2212.	0.293	5236.	0.026
2214.	0.291	5238.	0.029
2216.	0.291	5240.	0.029
2218.	0.29	5242.	0.028
2220.	0.291	5244.	0.028
2222.	0.287	5246.	0.032
2224.	0.287	5248.	0.027
2226.	0.29	5250.	0.025
2228.	0.286	5252.	0.028
2230.	0.291	5254.	0.026
2232.	0.285	5256.	0.031
2234.	0.289	5258.	0.026
2236.	0.289	5260.	0.027
2238.	0.289	5262.	0.026
2240.	0.289	5264.	0.026
2242.	0.288	5266.	0.027
2244.	0.289	5268.	0.029
2246.	0.284	5270.	0.026
2248.	0.284	5272.	0.027
2250.	0.284	5274.	0.029
2252.	0.286	5276.	0.026
2254.	0.287	5278.	0.027
2256.	0.286	5280.	0.026
2258.	0.281	5282.	0.024
2260.	0.284	5284.	0.025
2262.	0.281	5286.	0.027
2264.	0.281	5288.	0.027
2266.	0.284	5290.	0.027
2268.	0.284	5292.	0.024
2270.	0.28	5294.	0.027
2272.	0.281	5296.	0.025
2274.	0.279	5298.	0.024
2276.	0.282	5300.	0.026
2278.	0.282	5302.	0.027
2280.	0.278	5304.	0.027
2282.	0.28	5306.	0.024
2284.	0.277	5308.	0.025
2286.	0.28	5310.	0.028
2288.	0.276	5312.	0.027
2290.	0.277	5314.	0.027
2292.	0.276	5316.	0.025
2294.	0.274	5318.	0.023
2296.	0.276	5320.	0.025
2298.	0.276	5322.	0.025
2300.	0.275	5324.	0.024
2302.	0.274	5326.	0.021
2304.	0.274	5328.	0.026

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2306.	0.277	5330.	0.025
2308.	0.276	5332.	0.022
2310.	0.278	5334.	0.025
2312.	0.277	5336.	0.024
2314.	0.274	5338.	0.022
2316.	0.28	5340.	0.025
2318.	0.272	5342.	0.024
2320.	0.274	5344.	0.026
2322.	0.274	5346.	0.021
2324.	0.276	5348.	0.026
2326.	0.275	5350.	0.022
2328.	0.274	5352.	0.025
2330.	0.275	5354.	0.024
2332.	0.275	5356.	0.02
2334.	0.272	5358.	0.02
2336.	0.271	5360.	0.022
2338.	0.274	5362.	0.023
2340.	0.269	5364.	0.029
2342.	0.268	5366.	0.025
2344.	0.269	5368.	0.024
2346.	0.272	5370.	0.023
2348.	0.264	5372.	0.022
2350.	0.269	5374.	0.024
2352.	0.268	5376.	0.023
2354.	0.271	5378.	0.023
2356.	0.269	5380.	0.024
2358.	0.26	5382.	0.024
2360.	0.268	5384.	0.02
2362.	0.267	5386.	0.025
2364.	0.259	5388.	0.023
2366.	0.265	5390.	0.022
2368.	0.264	5392.	0.024
2370.	0.265	5394.	0.025
2372.	0.263	5396.	0.022
2374.	0.265	5398.	0.024
2376.	0.263	5400.	0.023
2378.	0.263	5402.	0.021
2380.	0.262	5404.	0.021
2382.	0.261	5406.	0.023
2384.	0.261	5408.	0.024
2386.	0.263	5410.	0.02
2388.	0.261	5412.	0.023
2390.	0.261	5414.	0.019
2392.	0.258	5416.	0.023
2394.	0.26	5418.	0.022
2396.	0.257	5420.	0.021
2398.	0.26	5422.	0.02
2400.	0.254	5424.	0.022
2402.	0.258	5426.	0.02
2404.	0.258	5428.	0.019
2406.	0.259	5430.	0.022
2408.	0.256	5432.	0.02
2410.	0.257	5434.	0.019
2412.	0.254	5436.	0.02
2414.	0.253	5438.	0.019
2416.	0.257	5440.	0.023
2418.	0.256	5442.	0.018
2420.	0.253	5444.	0.018
2422.	0.255	5446.	0.02
2424.	0.256	5448.	0.017
2426.	0.255	5450.	0.023
2428.	0.254	5452.	0.019
2430.	0.253	5454.	0.02
2432.	0.253	5456.	0.019
2434.	0.253	5458.	0.021
2436.	0.253	5460.	0.017

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2438.	0.251	5462.	0.019
2440.	0.252	5464.	0.022
2442.	0.253	5466.	0.02
2444.	0.254	5468.	0.02
2446.	0.253	5470.	0.02
2448.	0.251	5472.	0.02
2450.	0.248	5474.	0.018
2452.	0.252	5476.	0.019
2454.	0.252	5478.	0.018
2456.	0.241	5480.	0.019
2458.	0.25	5482.	0.018
2460.	0.249	5484.	0.019
2462.	0.252	5486.	0.021
2464.	0.247	5488.	0.019
2466.	0.248	5490.	0.017
2468.	0.248	5492.	0.018
2470.	0.248	5494.	0.019
2472.	0.246	5496.	0.015
2474.	0.244	5498.	0.019
2476.	0.246	5500.	0.021
2478.	0.264	5502.	0.016
2480.	0.247	5504.	0.016
2482.	0.243	5506.	0.022
2484.	0.246	5508.	0.018
2486.	0.246	5510.	0.016
2488.	0.244	5512.	0.018
2490.	0.245	5514.	0.017
2492.	0.243	5516.	0.017
2494.	0.246	5518.	0.018
2496.	0.24	5520.	0.019
2498.	0.242	5522.	0.015
2500.	0.246	5524.	0.019
2502.	0.247	5526.	0.022
2504.	0.238	5528.	0.017
2506.	0.244	5530.	0.017
2508.	0.24	5532.	0.017
2510.	0.238	5534.	0.015
2512.	0.241	5536.	0.019
2514.	0.241	5538.	0.02
2516.	0.238	5540.	0.018
2518.	0.24	5542.	0.017
2520.	0.238	5544.	0.018
2522.	0.239	5546.	0.019
2524.	0.239	5548.	0.016
2526.	0.239	5550.	0.018
2528.	0.242	5552.	0.013
2530.	0.242	5554.	0.017
2532.	0.242	5556.	0.017
2534.	0.24	5558.	0.015
2536.	0.24	5560.	0.017
2538.	0.24	5562.	0.014
2540.	0.238	5564.	0.018
2542.	0.239	5566.	0.016
2544.	0.239	5568.	0.016
2546.	0.241	5570.	0.015
2548.	0.237	5572.	0.014
2550.	0.24	5574.	0.016
2552.	0.24	5576.	0.014
2554.	0.24	5578.	0.016
2556.	0.237	5580.	0.018
2558.	0.238	5582.	0.02
2560.	0.237	5584.	0.015
2562.	0.238	5586.	0.017
2564.	0.235	5588.	0.013
2566.	0.236	5590.	0.014
2568.	0.232	5592.	0.016

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2570.	0.234	5594.	0.018
2572.	0.236	5596.	0.017
2574.	0.231	5598.	0.016
2576.	0.233	5600.	0.016
2578.	0.233	5602.	0.018
2580.	0.235	5604.	0.014
2582.	0.23	5606.	0.015
2584.	0.231	5608.	0.015
2586.	0.231	5610.	0.012
2588.	0.233	5612.	0.013
2590.	0.232	5614.	0.017
2592.	0.231	5616.	0.012
2594.	0.232	5618.	0.014
2596.	0.233	5620.	0.012
2598.	0.23	5622.	0.012
2600.	0.23	5624.	0.016
2602.	0.23	5626.	0.014
2604.	0.23	5628.	0.01
2606.	0.228	5630.	0.017
2608.	0.228	5632.	0.013
2610.	0.226	5634.	0.013
2612.	0.229	5636.	0.012
2614.	0.226	5638.	0.013
2616.	0.227	5640.	0.013
2618.	0.228	5642.	0.012
2620.	0.223	5644.	0.012
2622.	0.224	5646.	0.014
2624.	0.228	5648.	0.01
2626.	0.229	5650.	0.016
2628.	0.23	5652.	0.014
2630.	0.224	5654.	0.012
2632.	0.224	5656.	0.013
2634.	0.224	5658.	0.01
2636.	0.224	5660.	0.011
2638.	0.225	5662.	0.018
2640.	0.226	5664.	0.012
2642.	0.222	5666.	0.011
2644.	0.22	5668.	0.014
2646.	0.226	5670.	0.015
2648.	0.223	5672.	0.013
2650.	0.224	5674.	0.012
2652.	0.222	5676.	0.012
2654.	0.221	5678.	0.014
2656.	0.222	5680.	0.011
2658.	0.222	5682.	0.014
2660.	0.218	5684.	0.012
2662.	0.221	5686.	0.015
2664.	0.221	5688.	0.01
2666.	0.218	5690.	0.014
2668.	0.221	5692.	0.009
2670.	0.218	5694.	0.011
2672.	0.22	5696.	0.011
2674.	0.219	5698.	0.012
2676.	0.217	5700.	0.012
2678.	0.217	5702.	0.014
2680.	0.215	5704.	0.011
2682.	0.219	5706.	0.014
2684.	0.213	5708.	0.01
2686.	0.218	5710.	0.009
2688.	0.217	5712.	0.012
2690.	0.216	5714.	0.011
2692.	0.218	5716.	0.011
2694.	0.216	5718.	0.011
2696.	0.216	5720.	0.012
2698.	0.214	5722.	0.009
2700.	0.217	5724.	0.013

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2702.	0.216	5726.	0.014
2704.	0.215	5728.	0.011
2706.	0.216	5730.	0.013
2708.	0.216	5732.	0.012
2710.	0.215	5734.	0.011
2712.	0.207	5736.	0.012
2714.	0.213	5738.	0.009
2716.	0.211	5740.	0.008
2718.	0.213	5742.	0.008
2720.	0.214	5744.	0.011
2722.	0.212	5746.	0.015
2724.	0.213	5748.	0.01
2726.	0.21	5750.	0.01
2728.	0.208	5752.	0.008
2730.	0.212	5754.	0.013
2732.	0.214	5756.	0.012
2734.	0.212	5758.	0.011
2736.	0.212	5760.	0.009
2738.	0.208	5762.	0.011
2740.	0.211	5764.	0.01
2742.	0.209	5766.	0.009
2744.	0.211	5768.	0.01
2746.	0.211	5770.	0.011
2748.	0.211	5772.	0.01
2750.	0.209	5774.	0.011
2752.	0.211	5776.	0.011
2754.	0.211	5778.	0.011
2756.	0.205	5780.	0.012
2758.	0.21	5782.	0.01
2760.	0.207	5784.	0.009
2762.	0.208	5786.	0.011
2764.	0.212	5788.	0.012
2766.	0.207	5790.	0.008
2768.	0.208	5792.	0.011
2770.	0.206	5794.	0.012
2772.	0.207	5796.	0.008
2774.	0.207	5798.	0.013
2776.	0.204	5800.	0.01
2778.	0.205	5802.	0.009
2780.	0.204	5804.	0.009
2782.	0.207	5806.	0.01
2784.	0.202	5808.	0.009
2786.	0.206	5810.	0.01
2788.	0.207	5812.	0.008
2790.	0.205	5814.	0.01
2792.	0.204	5816.	0.008
2794.	0.201	5818.	0.006
2796.	0.206	5820.	0.008
2798.	0.204	5822.	0.007
2800.	0.204	5824.	0.007
2802.	0.204	5826.	0.011
2804.	0.205	5828.	0.008
2806.	0.201	5830.	0.011
2808.	0.201	5832.	0.011
2810.	0.202	5834.	0.008
2812.	0.2	5836.	0.008
2814.	0.199	5838.	0.01
2816.	0.202	5840.	0.005
2818.	0.199	5842.	0.011
2820.	0.198	5844.	0.01
2822.	0.199	5846.	0.008
2824.	0.198	5848.	0.005
2826.	0.198	5850.	0.005
2828.	0.197	5852.	0.007
2830.	0.2	5854.	0.008
2832.	0.199	5856.	0.009

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2834.	0.201	5858.	0.01
2836.	0.197	5860.	0.008
2838.	0.2	5862.	0.005
2840.	0.199	5864.	0.008
2842.	0.194	5866.	0.008
2844.	0.197	5868.	0.007
2846.	0.199	5870.	0.01
2848.	0.2	5872.	0.008
2850.	0.197	5874.	0.008
2852.	0.196	5876.	0.006
2854.	0.195	5878.	0.009
2856.	0.198	5880.	0.009
2858.	0.196	5882.	0.008
2860.	0.197	5884.	0.006
2862.	0.197	5886.	0.006
2864.	0.196	5888.	0.007
2866.	0.196	5890.	0.007
2868.	0.194	5892.	0.011
2870.	0.196	5894.	0.006
2872.	0.191	5896.	0.01
2874.	0.194	5898.	0.007
2876.	0.194	5900.	0.004
2878.	0.194	5902.	0.008
2880.	0.194	5904.	0.005
2882.	0.193	5906.	0.008
2884.	0.192	5908.	0.007
2886.	0.192	5910.	0.005
2888.	0.192	5912.	0.008
2890.	0.192	5914.	0.004
2892.	0.191	5916.	0.007
2894.	0.187	5918.	0.005
2896.	0.189	5920.	0.004
2898.	0.189	5922.	0.007
2900.	0.189	5924.	0.009
2902.	0.19	5926.	0.004
2904.	0.191	5928.	0.005
2906.	0.189	5930.	0.005
2908.	0.189	5932.	0.004
2910.	0.189	5934.	0.005
2912.	0.187	5936.	0.007
2914.	0.19	5938.	0.004
2916.	0.19	5940.	0.007
2918.	0.188	5942.	0.002
2920.	0.186	5944.	0.004
2922.	0.188	5946.	0.008
2924.	0.186	5948.	0.005
2926.	0.186	5950.	0.003
2928.	0.184	5952.	0.005
2930.	0.185	5954.	0.008
2932.	0.186	5956.	0.007
2934.	0.183	5958.	0.003
2936.	0.185	5960.	0.004
2938.	0.183	5962.	0.
2940.	0.187	5964.	0.006
2942.	0.182	5966.	0.003
2944.	0.186	5968.	0.005
2946.	0.183	5970.	0.005
2948.	0.18	5972.	0.005
2950.	0.182	5974.	0.008
2952.	0.185	5976.	0.006
2954.	0.183	5978.	0.006
2956.	0.182	5980.	0.006
2958.	0.183	5982.	0.008
2960.	0.177	5984.	0.004
2962.	0.18	5986.	0.006
2964.	0.185	5988.	0.002

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2966.	0.181	5990.	0.005
2968.	0.179	5992.	0.003
2970.	0.181	5994.	0.002
2972.	0.181	5996.	0.005
2974.	0.182	5998.	0.003
2976.	0.182	6000.	0.005
2978.	0.179	6002.	0.002
2980.	0.179	6004.	0.004
2982.	0.18	6006.	0.003
2984.	0.182	6008.	0.002
2986.	0.177	6010.	0.003
2988.	0.178	6012.	0.003
2990.	0.176	6014.	0.002
2992.	0.177	6016.	0.005
2994.	0.177	6018.	0.007
2996.	0.175	6020.	0.004
2998.	0.179	6022.	0.003
3000.	0.178	6024.	0.
3002.	0.177	6026.	0.006
3004.	0.179	6028.	0.004
3006.	0.177	6030.	0.003
3008.	0.174	6032.	0.004
3010.	0.176	6034.	0.005
3012.	0.177	6036.	0.004
3014.	0.176	6038.	0.006
3016.	0.175	6040.	0.003
3018.	0.178	6042.	0.006
3020.	0.176	6044.	0.002
3022.	0.174	6046.	0.002

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 2.459

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	1.788E-5	cm/sec
y0	1.071	ft

T = K*b = 0.004305 cm²/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:22:10

PROJECT INFORMATION

Company: ERM
Client: Elon
Location: NC
Test Date: 5/2014
Test Well: MW-7

AQUIFER DATA

Saturated Thickness: 7.9 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: MW-7

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.742 ft
Static Water Column Height: 7.9 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 1. ft
Screen Length: 7.9 ft
Total Well Penetration Depth: 7.9 ft

No. of Observations: 4592

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.402	4592.	0.201
2.	1.628	4594.	0.201
4.	1.566	4596.	0.204
6.	1.508	4598.	0.198
8.	1.451	4600.	0.199
10.	1.414	4602.	0.201
12.	1.514	4604.	0.199
14.	1.396	4606.	0.198
16.	1.742	4608.	0.199
18.	1.293	4610.	0.202
20.	1.278	4612.	0.198
22.	1.267	4614.	0.2
24.	1.244	4616.	0.197
26.	1.249	4618.	0.199
28.	1.229	4620.	0.197
30.	1.232	4622.	0.194
32.	1.226	4624.	0.198
34.	1.218	4626.	0.195
36.	1.216	4628.	0.196
38.	1.211	4630.	0.199
40.	1.204	4632.	0.198
42.	1.201	4634.	0.197
44.	1.197	4636.	0.194
46.	1.198	4638.	0.199
48.	1.195	4640.	0.195
50.	1.189	4642.	0.196
52.	1.189	4644.	0.197
54.	1.185	4646.	0.195
56.	1.181	4648.	0.19
58.	1.179	4650.	0.195
60.	1.173	4652.	0.198

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	1.17	4654.	0.194
64.	1.176	4656.	0.196
66.	1.171	4658.	0.193
68.	1.167	4660.	0.193
70.	1.165	4662.	0.194
72.	1.164	4664.	0.192
74.	1.162	4666.	0.194
76.	1.158	4668.	0.192
78.	1.154	4670.	0.192
80.	1.158	4672.	0.191
82.	1.153	4674.	0.194
84.	1.15	4676.	0.193
86.	1.147	4678.	0.19
88.	1.152	4680.	0.19
90.	1.15	4682.	0.192
92.	1.143	4684.	0.192
94.	1.14	4686.	0.193
96.	1.147	4688.	0.195
98.	1.142	4690.	0.192
100.	1.139	4692.	0.19
102.	1.139	4694.	0.189
104.	1.136	4696.	0.189
106.	1.133	4698.	0.193
108.	1.134	4700.	0.191
110.	1.129	4702.	0.192
112.	1.129	4704.	0.193
114.	1.125	4706.	0.188
116.	1.127	4708.	0.187
118.	1.124	4710.	0.189
120.	1.125	4712.	0.188
122.	1.123	4714.	0.189
124.	1.122	4716.	0.194
126.	1.118	4718.	0.191
128.	1.119	4720.	0.191
130.	1.118	4722.	0.187
132.	1.115	4724.	0.189
134.	1.111	4726.	0.191
136.	1.112	4728.	0.191
138.	1.112	4730.	0.186
140.	1.111	4732.	0.188
142.	1.105	4734.	0.187
144.	1.107	4736.	0.188
146.	1.107	4738.	0.186
148.	1.107	4740.	0.192
150.	1.105	4742.	0.184
152.	1.105	4744.	0.189
154.	1.102	4746.	0.186
156.	1.1	4748.	0.187
158.	1.098	4750.	0.187
160.	1.097	4752.	0.19
162.	1.096	4754.	0.185
164.	1.099	4756.	0.187
166.	1.09	4758.	0.188
168.	1.09	4760.	0.189
170.	1.089	4762.	0.185
172.	1.089	4764.	0.185
174.	1.087	4766.	0.187
176.	1.085	4768.	0.184
178.	1.084	4770.	0.183
180.	1.083	4772.	0.187
182.	1.082	4774.	0.19
184.	1.082	4776.	0.183
186.	1.079	4778.	0.185
188.	1.075	4780.	0.185
190.	1.076	4782.	0.188
192.	1.075	4784.	0.179

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	1.073	4786.	0.184
196.	1.075	4788.	0.183
198.	1.073	4790.	0.183
200.	1.068	4792.	0.183
202.	1.072	4794.	0.183
204.	1.069	4796.	0.186
206.	1.068	4798.	0.182
208.	1.068	4800.	0.182
210.	1.065	4802.	0.182
212.	1.064	4804.	0.181
214.	1.066	4806.	0.18
216.	1.061	4808.	0.182
218.	1.061	4810.	0.18
220.	1.06	4812.	0.18
222.	1.059	4814.	0.181
224.	1.062	4816.	0.185
226.	1.056	4818.	0.183
228.	1.057	4820.	0.182
230.	1.052	4822.	0.18
232.	1.054	4824.	0.182
234.	1.052	4826.	0.18
236.	1.05	4828.	0.183
238.	1.052	4830.	0.182
240.	1.047	4832.	0.181
242.	1.046	4834.	0.179
244.	1.048	4836.	0.182
246.	1.048	4838.	0.182
248.	1.044	4840.	0.18
250.	1.044	4842.	0.179
252.	1.043	4844.	0.18
254.	1.043	4846.	0.179
256.	1.044	4848.	0.177
258.	1.04	4850.	0.183
260.	1.04	4852.	0.18
262.	1.041	4854.	0.176
264.	1.034	4856.	0.179
266.	1.035	4858.	0.178
268.	1.035	4860.	0.178
270.	1.035	4862.	0.177
272.	1.034	4864.	0.18
274.	1.03	4866.	0.18
276.	1.029	4868.	0.176
278.	1.031	4870.	0.178
280.	1.028	4872.	0.175
282.	1.03	4874.	0.179
284.	1.029	4876.	0.184
286.	1.024	4878.	0.176
288.	1.029	4880.	0.176
290.	1.027	4882.	0.178
292.	1.021	4884.	0.172
294.	1.02	4886.	0.175
296.	1.021	4888.	0.176
298.	1.019	4890.	0.178
300.	1.024	4892.	0.175
302.	1.017	4894.	0.176
304.	1.02	4896.	0.175
306.	1.017	4898.	0.181
308.	1.015	4900.	0.175
310.	1.018	4902.	0.173
312.	1.016	4904.	0.173
314.	1.014	4906.	0.175
316.	1.014	4908.	0.173
318.	1.012	4910.	0.175
320.	1.012	4912.	0.176
322.	1.005	4914.	0.176
324.	1.008	4916.	0.176

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	1.008	4918.	0.173
328.	1.005	4920.	0.173
330.	1.005	4922.	0.17
332.	1.011	4924.	0.172
334.	1.005	4926.	0.173
336.	1.005	4928.	0.171
338.	1.001	4930.	0.173
340.	1.001	4932.	0.171
342.	1.003	4934.	0.172
344.	0.998	4936.	0.176
346.	0.999	4938.	0.174
348.	0.999	4940.	0.17
350.	0.996	4942.	0.17
352.	0.998	4944.	0.17
354.	0.993	4946.	0.172
356.	1.002	4948.	0.173
358.	0.995	4950.	0.172
360.	0.996	4952.	0.171
362.	0.991	4954.	0.171
364.	0.991	4956.	0.168
366.	0.992	4958.	0.174
368.	0.992	4960.	0.17
370.	0.987	4962.	0.175
372.	0.987	4964.	0.172
374.	0.986	4966.	0.17
376.	0.986	4968.	0.171
378.	0.984	4970.	0.169
380.	0.982	4972.	0.173
382.	0.982	4974.	0.172
384.	0.98	4976.	0.17
386.	0.983	4978.	0.17
388.	0.98	4980.	0.168
390.	0.978	4982.	0.171
392.	0.986	4984.	0.169
394.	0.975	4986.	0.168
396.	0.98	4988.	0.169
398.	0.978	4990.	0.171
400.	0.979	4992.	0.17
402.	0.975	4994.	0.167
404.	0.975	4996.	0.173
406.	0.975	4998.	0.167
408.	0.972	5000.	0.167
410.	0.971	5002.	0.168
412.	0.968	5004.	0.169
414.	0.966	5006.	0.166
416.	0.967	5008.	0.167
418.	0.959	5010.	0.165
420.	0.968	5012.	0.164
422.	0.967	5014.	0.167
424.	0.963	5016.	0.166
426.	1.023	5018.	0.167
428.	0.973	5020.	0.165
430.	0.983	5022.	0.167
432.	0.974	5024.	0.163
434.	0.976	5026.	0.167
436.	0.976	5028.	0.168
438.	0.975	5030.	0.169
440.	0.976	5032.	0.165
442.	0.971	5034.	0.165
444.	0.969	5036.	0.167
446.	0.969	5038.	0.169
448.	0.971	5040.	0.162
450.	0.967	5042.	0.168
452.	0.967	5044.	0.163
454.	0.97	5046.	0.164
456.	0.968	5048.	0.166

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
458.	0.963	5050.	0.165
460.	0.964	5052.	0.16
462.	0.964	5054.	0.161
464.	0.965	5056.	0.166
466.	0.966	5058.	0.161
468.	0.962	5060.	0.161
470.	0.962	5062.	0.165
472.	0.96	5064.	0.163
474.	0.959	5066.	0.168
476.	0.964	5068.	0.163
478.	0.958	5070.	0.164
480.	0.958	5072.	0.165
482.	0.96	5074.	0.161
484.	0.954	5076.	0.163
486.	0.956	5078.	0.163
488.	0.957	5080.	0.161
490.	0.955	5082.	0.164
492.	0.954	5084.	0.162
494.	0.952	5086.	0.162
496.	0.951	5088.	0.162
498.	0.952	5090.	0.159
500.	0.95	5092.	0.163
502.	0.951	5094.	0.161
504.	0.945	5096.	0.162
506.	0.95	5098.	0.162
508.	0.946	5100.	0.166
510.	0.945	5102.	0.161
512.	0.948	5104.	0.158
514.	0.944	5106.	0.16
516.	0.941	5108.	0.158
518.	0.944	5110.	0.162
520.	0.938	5112.	0.16
522.	0.943	5114.	0.158
524.	0.938	5116.	0.157
526.	0.941	5118.	0.157
528.	0.94	5120.	0.16
530.	0.938	5122.	0.158
532.	0.938	5124.	0.16
534.	0.939	5126.	0.157
536.	0.936	5128.	0.156
538.	0.935	5130.	0.159
540.	0.937	5132.	0.159
542.	0.935	5134.	0.155
544.	0.934	5136.	0.158
546.	0.934	5138.	0.157
548.	0.933	5140.	0.158
550.	0.928	5142.	0.16
552.	0.932	5144.	0.156
554.	0.931	5146.	0.158
556.	0.929	5148.	0.16
558.	0.926	5150.	0.158
560.	0.929	5152.	0.158
562.	0.929	5154.	0.16
564.	0.926	5156.	0.157
566.	0.926	5158.	0.156
568.	0.925	5160.	0.156
570.	0.922	5162.	0.159
572.	0.925	5164.	0.158
574.	0.925	5166.	0.156
576.	0.921	5168.	0.155
578.	0.921	5170.	0.155
580.	0.921	5172.	0.157
582.	0.922	5174.	0.157
584.	0.919	5176.	0.157
586.	0.918	5178.	0.155
588.	0.918	5180.	0.158

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
590.	0.914	5182.	0.155
592.	0.916	5184.	0.154
594.	0.915	5186.	0.155
596.	0.914	5188.	0.154
598.	0.913	5190.	0.155
600.	0.912	5192.	0.155
602.	0.912	5194.	0.153
604.	0.914	5196.	0.154
606.	0.915	5198.	0.152
608.	0.912	5200.	0.153
610.	0.911	5202.	0.154
612.	0.91	5204.	0.152
614.	0.909	5206.	0.154
616.	0.906	5208.	0.153
618.	0.909	5210.	0.157
620.	0.905	5212.	0.154
622.	0.903	5214.	0.152
624.	0.904	5216.	0.151
626.	0.905	5218.	0.157
628.	0.903	5220.	0.151
630.	0.902	5222.	0.153
632.	0.901	5224.	0.153
634.	0.902	5226.	0.156
636.	0.899	5228.	0.151
638.	0.899	5230.	0.152
640.	0.899	5232.	0.153
642.	0.897	5234.	0.152
644.	0.895	5236.	0.15
646.	0.896	5238.	0.152
648.	0.898	5240.	0.152
650.	0.894	5242.	0.153
652.	0.894	5244.	0.151
654.	0.892	5246.	0.148
656.	0.894	5248.	0.152
658.	0.89	5250.	0.151
660.	0.892	5252.	0.15
662.	0.892	5254.	0.151
664.	0.892	5256.	0.152
666.	0.888	5258.	0.148
668.	0.892	5260.	0.152
670.	0.888	5262.	0.152
672.	0.885	5264.	0.149
674.	0.884	5266.	0.153
676.	0.886	5268.	0.149
678.	0.886	5270.	0.149
680.	0.885	5272.	0.149
682.	0.884	5274.	0.15
684.	0.882	5276.	0.15
686.	0.884	5278.	0.151
688.	0.884	5280.	0.149
690.	0.881	5282.	0.149
692.	0.881	5284.	0.147
694.	0.88	5286.	0.146
696.	0.881	5288.	0.145
698.	0.879	5290.	0.153
700.	0.877	5292.	0.151
702.	0.878	5294.	0.148
704.	0.879	5296.	0.151
706.	0.877	5298.	0.147
708.	0.873	5300.	0.145
710.	0.875	5302.	0.144
712.	0.875	5304.	0.145
714.	0.874	5306.	0.146
716.	0.872	5308.	0.15
718.	0.874	5310.	0.15
720.	0.871	5312.	0.149

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
722.	0.874	5314.	0.144
724.	0.869	5316.	0.144
726.	0.871	5318.	0.146
728.	0.87	5320.	0.145
730.	0.867	5322.	0.148
732.	0.869	5324.	0.145
734.	0.867	5326.	0.143
736.	0.867	5328.	0.148
738.	0.865	5330.	0.146
740.	0.864	5332.	0.145
742.	0.868	5334.	0.148
744.	0.862	5336.	0.148
746.	0.862	5338.	0.144
748.	0.862	5340.	0.145
750.	0.862	5342.	0.145
752.	0.864	5344.	0.142
754.	0.861	5346.	0.146
756.	0.858	5348.	0.143
758.	0.859	5350.	0.146
760.	0.86	5352.	0.144
762.	0.856	5354.	0.144
764.	0.859	5356.	0.141
766.	0.852	5358.	0.145
768.	0.855	5360.	0.144
770.	0.855	5362.	0.142
772.	0.857	5364.	0.146
774.	0.853	5366.	0.144
776.	0.854	5368.	0.147
778.	0.853	5370.	0.144
780.	0.853	5372.	0.146
782.	0.85	5374.	0.138
784.	0.85	5376.	0.14
786.	0.85	5378.	0.14
788.	0.846	5380.	0.142
790.	0.846	5382.	0.143
792.	0.85	5384.	0.141
794.	0.85	5386.	0.143
796.	0.85	5388.	0.143
798.	0.847	5390.	0.14
800.	0.848	5392.	0.141
802.	0.846	5394.	0.141
804.	0.841	5396.	0.141
806.	0.845	5398.	0.143
808.	0.841	5400.	0.143
810.	0.841	5402.	0.14
812.	0.842	5404.	0.141
814.	0.842	5406.	0.143
816.	0.841	5408.	0.142
818.	0.84	5410.	0.142
820.	0.84	5412.	0.143
822.	0.837	5414.	0.142
824.	0.838	5416.	0.143
826.	0.835	5418.	0.139
828.	0.833	5420.	0.141
830.	0.836	5422.	0.141
832.	0.834	5424.	0.139
834.	0.836	5426.	0.138
836.	0.835	5428.	0.14
838.	0.836	5430.	0.139
840.	0.83	5432.	0.141
842.	0.833	5434.	0.141
844.	0.829	5436.	0.139
846.	0.828	5438.	0.141
848.	0.832	5440.	0.137
850.	0.829	5442.	0.139
852.	0.827	5444.	0.138

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
854.	0.829	5446.	0.139
856.	0.826	5448.	0.137
858.	0.825	5450.	0.139
860.	0.824	5452.	0.137
862.	0.826	5454.	0.138
864.	0.83	5456.	0.138
866.	0.824	5458.	0.138
868.	0.823	5460.	0.136
870.	0.821	5462.	0.14
872.	0.824	5464.	0.134
874.	0.825	5466.	0.137
876.	0.822	5468.	0.134
878.	0.82	5470.	0.135
880.	0.821	5472.	0.136
882.	0.821	5474.	0.139
884.	0.819	5476.	0.137
886.	0.818	5478.	0.137
888.	0.816	5480.	0.14
890.	0.814	5482.	0.135
892.	0.818	5484.	0.136
894.	0.814	5486.	0.135
896.	0.814	5488.	0.139
898.	0.813	5490.	0.139
900.	0.811	5492.	0.137
902.	0.811	5494.	0.138
904.	0.81	5496.	0.135
906.	0.811	5498.	0.135
908.	0.81	5500.	0.136
910.	0.811	5502.	0.139
912.	0.812	5504.	0.136
914.	0.809	5506.	0.137
916.	0.806	5508.	0.134
918.	0.805	5510.	0.132
920.	0.806	5512.	0.133
922.	0.805	5514.	0.137
924.	0.806	5516.	0.139
926.	0.806	5518.	0.134
928.	0.805	5520.	0.133
930.	0.804	5522.	0.135
932.	0.803	5524.	0.132
934.	0.801	5526.	0.133
936.	0.804	5528.	0.134
938.	0.804	5530.	0.135
940.	0.8	5532.	0.138
942.	0.801	5534.	0.135
944.	0.796	5536.	0.134
946.	0.798	5538.	0.134
948.	0.799	5540.	0.132
950.	0.797	5542.	0.131
952.	0.797	5544.	0.133
954.	0.793	5546.	0.134
956.	0.794	5548.	0.131
958.	0.793	5550.	0.133
960.	0.795	5552.	0.131
962.	0.796	5554.	0.137
964.	0.796	5556.	0.131
966.	0.793	5558.	0.131
968.	0.791	5560.	0.131
970.	0.79	5562.	0.131
972.	0.789	5564.	0.131
974.	0.794	5566.	0.128
976.	0.79	5568.	0.132
978.	0.789	5570.	0.132
980.	0.788	5572.	0.131
982.	0.788	5574.	0.129
984.	0.787	5576.	0.133

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
986.	0.784	5578.	0.131
988.	0.788	5580.	0.132
990.	0.787	5582.	0.13
992.	0.785	5584.	0.13
994.	0.784	5586.	0.131
996.	0.784	5588.	0.13
998.	0.785	5590.	0.134
1000.	0.783	5592.	0.128
1002.	0.782	5594.	0.133
1004.	0.781	5596.	0.131
1006.	0.782	5598.	0.129
1008.	0.781	5600.	0.13
1010.	0.781	5602.	0.128
1012.	0.778	5604.	0.133
1014.	0.777	5606.	0.131
1016.	0.779	5608.	0.13
1018.	0.777	5610.	0.13
1020.	0.778	5612.	0.128
1022.	0.776	5614.	0.13
1024.	0.777	5616.	0.127
1026.	0.775	5618.	0.131
1028.	0.774	5620.	0.127
1030.	0.779	5622.	0.129
1032.	0.774	5624.	0.131
1034.	0.774	5626.	0.128
1036.	0.773	5628.	0.129
1038.	0.77	5630.	0.128
1040.	0.768	5632.	0.129
1042.	0.773	5634.	0.129
1044.	0.767	5636.	0.129
1046.	0.767	5638.	0.128
1048.	0.768	5640.	0.13
1050.	0.766	5642.	0.127
1052.	0.769	5644.	0.13
1054.	0.766	5646.	0.129
1056.	0.764	5648.	0.127
1058.	0.766	5650.	0.126
1060.	0.766	5652.	0.126
1062.	0.764	5654.	0.129
1064.	0.764	5656.	0.127
1066.	0.763	5658.	0.129
1068.	0.763	5660.	0.128
1070.	0.761	5662.	0.127
1072.	0.766	5664.	0.127
1074.	0.762	5666.	0.125
1076.	0.76	5668.	0.126
1078.	0.757	5670.	0.125
1080.	0.761	5672.	0.126
1082.	0.762	5674.	0.125
1084.	0.761	5676.	0.13
1086.	0.756	5678.	0.128
1088.	0.757	5680.	0.126
1090.	0.757	5682.	0.125
1092.	0.754	5684.	0.127
1094.	0.754	5686.	0.127
1096.	0.755	5688.	0.125
1098.	0.755	5690.	0.126
1100.	0.755	5692.	0.125
1102.	0.752	5694.	0.126
1104.	0.753	5696.	0.126
1106.	0.749	5698.	0.124
1108.	0.752	5700.	0.122
1110.	0.751	5702.	0.126
1112.	0.748	5704.	0.127
1114.	0.75	5706.	0.125
1116.	0.747	5708.	0.123

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1118.	0.747	5710.	0.122
1120.	0.745	5712.	0.122
1122.	0.747	5714.	0.129
1124.	0.746	5716.	0.126
1126.	0.748	5718.	0.126
1128.	0.749	5720.	0.122
1130.	0.745	5722.	0.124
1132.	0.746	5724.	0.124
1134.	0.741	5726.	0.126
1136.	0.741	5728.	0.121
1138.	0.743	5730.	0.125
1140.	0.726	5732.	0.124
1142.	0.73	5734.	0.122
1144.	0.728	5736.	0.123
1146.	0.728	5738.	0.123
1148.	0.728	5740.	0.125
1150.	0.726	5742.	0.122
1152.	0.727	5744.	0.123
1154.	0.727	5746.	0.12
1156.	0.724	5748.	0.122
1158.	0.787	5750.	0.119
1160.	0.734	5752.	0.12
1162.	0.724	5754.	0.123
1164.	0.726	5756.	0.12
1166.	0.725	5758.	0.123
1168.	0.726	5760.	0.121
1170.	0.725	5762.	0.118
1172.	0.727	5764.	0.121
1174.	0.727	5766.	0.122
1176.	0.723	5768.	0.12
1178.	0.726	5770.	0.118
1180.	0.725	5772.	0.12
1182.	0.727	5774.	0.121
1184.	0.721	5776.	0.119
1186.	0.722	5778.	0.118
1188.	0.721	5780.	0.12
1190.	0.719	5782.	0.118
1192.	0.72	5784.	0.122
1194.	0.72	5786.	0.12
1196.	0.72	5788.	0.119
1198.	0.715	5790.	0.123
1200.	0.718	5792.	0.123
1202.	0.715	5794.	0.12
1204.	0.719	5796.	0.118
1206.	0.719	5798.	0.117
1208.	0.718	5800.	0.118
1210.	0.716	5802.	0.121
1212.	0.715	5804.	0.118
1214.	0.717	5806.	0.121
1216.	0.713	5808.	0.121
1218.	0.713	5810.	0.119
1220.	0.712	5812.	0.123
1222.	0.714	5814.	0.118
1224.	0.711	5816.	0.121
1226.	0.715	5818.	0.117
1228.	0.715	5820.	0.12
1230.	0.711	5822.	0.118
1232.	0.711	5824.	0.117
1234.	0.71	5826.	0.121
1236.	0.71	5828.	0.115
1238.	0.709	5830.	0.117
1240.	0.71	5832.	0.116
1242.	0.712	5834.	0.116
1244.	0.707	5836.	0.121
1246.	0.712	5838.	0.118
1248.	0.707	5840.	0.121

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1250.	0.704	5842.	0.116
1252.	0.707	5844.	0.116
1254.	0.707	5846.	0.12
1256.	0.703	5848.	0.117
1258.	0.704	5850.	0.12
1260.	0.702	5852.	0.116
1262.	0.709	5854.	0.115
1264.	0.701	5856.	0.119
1266.	0.702	5858.	0.114
1268.	0.702	5860.	0.113
1270.	0.701	5862.	0.112
1272.	0.699	5864.	0.116
1274.	0.698	5866.	0.118
1276.	0.7	5868.	0.116
1278.	0.702	5870.	0.117
1280.	0.7	5872.	0.116
1282.	0.699	5874.	0.117
1284.	0.696	5876.	0.118
1286.	0.699	5878.	0.118
1288.	0.697	5880.	0.115
1290.	0.698	5882.	0.118
1292.	0.693	5884.	0.115
1294.	0.694	5886.	0.115
1296.	0.696	5888.	0.116
1298.	0.693	5890.	0.116
1300.	0.685	5892.	0.113
1302.	0.693	5894.	0.114
1304.	0.685	5896.	0.114
1306.	0.692	5898.	0.115
1308.	0.751	5900.	0.113
1310.	0.711	5902.	0.113
1312.	0.697	5904.	0.112
1314.	0.699	5906.	0.112
1316.	0.695	5908.	0.117
1318.	0.694	5910.	0.116
1320.	0.694	5912.	0.113
1322.	0.691	5914.	0.115
1324.	0.691	5916.	0.115
1326.	0.693	5918.	0.114
1328.	0.688	5920.	0.113
1330.	0.691	5922.	0.112
1332.	0.688	5924.	0.112
1334.	0.69	5926.	0.114
1336.	0.689	5928.	0.111
1338.	0.687	5930.	0.112
1340.	0.691	5932.	0.111
1342.	0.685	5934.	0.111
1344.	0.685	5936.	0.113
1346.	0.686	5938.	0.113
1348.	0.685	5940.	0.111
1350.	0.682	5942.	0.109
1352.	0.684	5944.	0.112
1354.	0.683	5946.	0.111
1356.	0.682	5948.	0.114
1358.	0.682	5950.	0.111
1360.	0.68	5952.	0.109
1362.	0.68	5954.	0.111
1364.	0.682	5956.	0.111
1366.	0.682	5958.	0.109
1368.	0.683	5960.	0.11
1370.	0.678	5962.	0.113
1372.	0.677	5964.	0.11
1374.	0.68	5966.	0.113
1376.	0.676	5968.	0.114
1378.	0.675	5970.	0.112
1380.	0.68	5972.	0.112

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1382.	0.675	5974.	0.113
1384.	0.68	5976.	0.114
1386.	0.677	5978.	0.109
1388.	0.677	5980.	0.11
1390.	0.673	5982.	0.109
1392.	0.675	5984.	0.11
1394.	0.672	5986.	0.112
1396.	0.671	5988.	0.11
1398.	0.674	5990.	0.108
1400.	0.676	5992.	0.111
1402.	0.671	5994.	0.109
1404.	0.674	5996.	0.112
1406.	0.671	5998.	0.109
1408.	0.67	6000.	0.108
1410.	0.67	6002.	0.11
1412.	0.668	6004.	0.112
1414.	0.665	6006.	0.107
1416.	0.669	6008.	0.11
1418.	0.666	6010.	0.108
1420.	0.668	6012.	0.108
1422.	0.668	6014.	0.108
1424.	0.67	6016.	0.11
1426.	0.664	6018.	0.109
1428.	0.666	6020.	0.112
1430.	0.666	6022.	0.107
1432.	0.661	6024.	0.108
1434.	0.663	6026.	0.11
1436.	0.667	6028.	0.107
1438.	0.665	6030.	0.113
1440.	0.66	6032.	0.11
1442.	0.661	6034.	0.107
1444.	0.662	6036.	0.109
1446.	0.659	6038.	0.107
1448.	0.663	6040.	0.107
1450.	0.661	6042.	0.107
1452.	0.658	6044.	0.111
1454.	0.656	6046.	0.107
1456.	0.659	6048.	0.109
1458.	0.659	6050.	0.108
1460.	0.657	6052.	0.109
1462.	0.654	6054.	0.107
1464.	0.654	6056.	0.109
1466.	0.655	6058.	0.108
1468.	0.654	6060.	0.106
1470.	0.654	6062.	0.107
1472.	0.655	6064.	0.108
1474.	0.654	6066.	0.104
1476.	0.653	6068.	0.106
1478.	0.651	6070.	0.104
1480.	0.652	6072.	0.106
1482.	0.654	6074.	0.106
1484.	0.649	6076.	0.105
1486.	0.649	6078.	0.108
1488.	0.65	6080.	0.104
1490.	0.65	6082.	0.106
1492.	0.65	6084.	0.104
1494.	0.648	6086.	0.104
1496.	0.646	6088.	0.105
1498.	0.645	6090.	0.107
1500.	0.646	6092.	0.104
1502.	0.648	6094.	0.106
1504.	0.648	6096.	0.11
1506.	0.645	6098.	0.103
1508.	0.646	6100.	0.108
1510.	0.641	6102.	0.103
1512.	0.643	6104.	0.1

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1514.	0.644	6106.	0.103
1516.	0.643	6108.	0.108
1518.	0.642	6110.	0.103
1520.	0.641	6112.	0.105
1522.	0.642	6114.	0.106
1524.	0.641	6116.	0.105
1526.	0.64	6118.	0.104
1528.	0.639	6120.	0.106
1530.	0.642	6122.	0.103
1532.	0.642	6124.	0.102
1534.	0.638	6126.	0.107
1536.	0.639	6128.	0.105
1538.	0.639	6130.	0.103
1540.	0.638	6132.	0.105
1542.	0.638	6134.	0.103
1544.	0.638	6136.	0.102
1546.	0.637	6138.	0.105
1548.	0.635	6140.	0.104
1550.	0.635	6142.	0.105
1552.	0.635	6144.	0.104
1554.	0.637	6146.	0.105
1556.	0.632	6148.	0.103
1558.	0.633	6150.	0.1
1560.	0.634	6152.	0.102
1562.	0.631	6154.	0.102
1564.	0.632	6156.	0.104
1566.	0.629	6158.	0.105
1568.	0.63	6160.	0.102
1570.	0.631	6162.	0.102
1572.	0.63	6164.	0.102
1574.	0.628	6166.	0.102
1576.	0.63	6168.	0.102
1578.	0.63	6170.	0.106
1580.	0.629	6172.	0.099
1582.	0.63	6174.	0.102
1584.	0.626	6176.	0.099
1586.	0.626	6178.	0.1
1588.	0.624	6180.	0.1
1590.	0.626	6182.	0.1
1592.	0.626	6184.	0.1
1594.	0.628	6186.	0.099
1596.	0.625	6188.	0.101
1598.	0.626	6190.	0.102
1600.	0.623	6192.	0.098
1602.	0.626	6194.	0.105
1604.	0.621	6196.	0.101
1606.	0.624	6198.	0.101
1608.	0.622	6200.	0.1
1610.	0.62	6202.	0.098
1612.	0.62	6204.	0.102
1614.	0.619	6206.	0.1
1616.	0.622	6208.	0.102
1618.	0.62	6210.	0.101
1620.	0.617	6212.	0.1
1622.	0.617	6214.	0.1
1624.	0.617	6216.	0.098
1626.	0.616	6218.	0.101
1628.	0.619	6220.	0.099
1630.	0.618	6222.	0.099
1632.	0.617	6224.	0.1
1634.	0.617	6226.	0.098
1636.	0.617	6228.	0.103
1638.	0.614	6230.	0.101
1640.	0.614	6232.	0.097
1642.	0.612	6234.	0.103
1644.	0.614	6236.	0.101

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1646.	0.612	6238.	0.1
1648.	0.612	6240.	0.1
1650.	0.609	6242.	0.1
1652.	0.612	6244.	0.102
1654.	0.609	6246.	0.1
1656.	0.609	6248.	0.1
1658.	0.611	6250.	0.098
1660.	0.608	6252.	0.101
1662.	0.606	6254.	0.099
1664.	0.608	6256.	0.099
1666.	0.61	6258.	0.097
1668.	0.605	6260.	0.097
1670.	0.609	6262.	0.096
1672.	0.607	6264.	0.097
1674.	0.607	6266.	0.098
1676.	0.606	6268.	0.1
1678.	0.605	6270.	0.095
1680.	0.604	6272.	0.096
1682.	0.605	6274.	0.102
1684.	0.606	6276.	0.094
1686.	0.604	6278.	0.095
1688.	0.602	6280.	0.096
1690.	0.605	6282.	0.101
1692.	0.6	6284.	0.099
1694.	0.603	6286.	0.097
1696.	0.601	6288.	0.097
1698.	0.601	6290.	0.096
1700.	0.603	6292.	0.095
1702.	0.597	6294.	0.094
1704.	0.601	6296.	0.095
1706.	0.6	6298.	0.095
1708.	0.6	6300.	0.093
1710.	0.596	6302.	0.096
1712.	0.6	6304.	0.094
1714.	0.597	6306.	0.093
1716.	0.596	6308.	0.095
1718.	0.599	6310.	0.097
1720.	0.595	6312.	0.097
1722.	0.596	6314.	0.094
1724.	0.596	6316.	0.099
1726.	0.598	6318.	0.093
1728.	0.592	6320.	0.097
1730.	0.593	6322.	0.098
1732.	0.595	6324.	0.097
1734.	0.591	6326.	0.097
1736.	0.593	6328.	0.097
1738.	0.591	6330.	0.097
1740.	0.59	6332.	0.098
1742.	0.594	6334.	0.097
1744.	0.592	6336.	0.094
1746.	0.588	6338.	0.095
1748.	0.588	6340.	0.096
1750.	0.591	6342.	0.093
1752.	0.587	6344.	0.094
1754.	0.588	6346.	0.093
1756.	0.587	6348.	0.094
1758.	0.587	6350.	0.095
1760.	0.59	6352.	0.094
1762.	0.59	6354.	0.095
1764.	0.587	6356.	0.092
1766.	0.586	6358.	0.093
1768.	0.587	6360.	0.093
1770.	0.586	6362.	0.094
1772.	0.586	6364.	0.094
1774.	0.585	6366.	0.094
1776.	0.585	6368.	0.093

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1778.	0.582	6370.	0.092
1780.	0.582	6372.	0.09
1782.	0.582	6374.	0.092
1784.	0.58	6376.	0.093
1786.	0.581	6378.	0.096
1788.	0.58	6380.	0.092
1790.	0.584	6382.	0.095
1792.	0.579	6384.	0.095
1794.	0.58	6386.	0.093
1796.	0.577	6388.	0.092
1798.	0.579	6390.	0.092
1800.	0.577	6392.	0.091
1802.	0.579	6394.	0.091
1804.	0.576	6396.	0.093
1806.	0.582	6398.	0.093
1808.	0.58	6400.	0.093
1810.	0.576	6402.	0.091
1812.	0.574	6404.	0.092
1814.	0.575	6406.	0.091
1816.	0.574	6408.	0.092
1818.	0.573	6410.	0.094
1820.	0.573	6412.	0.091
1822.	0.579	6414.	0.09
1824.	0.576	6416.	0.091
1826.	0.574	6418.	0.091
1828.	0.572	6420.	0.091
1830.	0.574	6422.	0.091
1832.	0.573	6424.	0.096
1834.	0.571	6426.	0.091
1836.	0.571	6428.	0.091
1838.	0.569	6430.	0.091
1840.	0.573	6432.	0.094
1842.	0.568	6434.	0.091
1844.	0.569	6436.	0.093
1846.	0.57	6438.	0.09
1848.	0.57	6440.	0.091
1850.	0.569	6442.	0.09
1852.	0.565	6444.	0.089
1854.	0.566	6446.	0.088
1856.	0.57	6448.	0.091
1858.	0.564	6450.	0.093
1860.	0.566	6452.	0.09
1862.	0.566	6454.	0.092
1864.	0.561	6456.	0.091
1866.	0.569	6458.	0.092
1868.	0.561	6460.	0.093
1870.	0.568	6462.	0.093
1872.	0.562	6464.	0.089
1874.	0.56	6466.	0.087
1876.	0.56	6468.	0.09
1878.	0.563	6470.	0.088
1880.	0.56	6472.	0.089
1882.	0.564	6474.	0.089
1884.	0.561	6476.	0.089
1886.	0.559	6478.	0.094
1888.	0.556	6480.	0.095
1890.	0.559	6482.	0.089
1892.	0.559	6484.	0.088
1894.	0.558	6486.	0.091
1896.	0.558	6488.	0.089
1898.	0.557	6490.	0.089
1900.	0.555	6492.	0.087
1902.	0.557	6494.	0.09
1904.	0.557	6496.	0.087
1906.	0.555	6498.	0.088
1908.	0.557	6500.	0.09

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1910.	0.553	6502.	0.086
1912.	0.556	6504.	0.086
1914.	0.552	6506.	0.089
1916.	0.557	6508.	0.085
1918.	0.555	6510.	0.089
1920.	0.554	6512.	0.087
1922.	0.553	6514.	0.089
1924.	0.55	6516.	0.089
1926.	0.552	6518.	0.087
1928.	0.549	6520.	0.092
1930.	0.552	6522.	0.086
1932.	0.549	6524.	0.086
1934.	0.55	6526.	0.086
1936.	0.554	6528.	0.086
1938.	0.547	6530.	0.085
1940.	0.548	6532.	0.087
1942.	0.549	6534.	0.102
1944.	0.552	6536.	0.091
1946.	0.549	6538.	0.092
1948.	0.548	6540.	0.092
1950.	0.545	6542.	0.092
1952.	0.55	6544.	0.091
1954.	0.544	6546.	0.09
1956.	0.544	6548.	0.094
1958.	0.544	6550.	0.095
1960.	0.545	6552.	0.094
1962.	0.543	6554.	0.092
1964.	0.543	6556.	0.091
1966.	0.544	6558.	0.093
1968.	0.544	6560.	0.092
1970.	0.544	6562.	0.09
1972.	0.541	6564.	0.089
1974.	0.54	6566.	0.089
1976.	0.543	6568.	0.094
1978.	0.544	6570.	0.093
1980.	0.542	6572.	0.095
1982.	0.541	6574.	0.094
1984.	0.543	6576.	0.092
1986.	0.542	6578.	0.095
1988.	0.538	6580.	0.091
1990.	0.539	6582.	0.088
1992.	0.537	6584.	0.089
1994.	0.538	6586.	0.09
1996.	0.538	6588.	0.091
1998.	0.539	6590.	0.09
2000.	0.534	6592.	0.086
2002.	0.538	6594.	0.094
2004.	0.54	6596.	0.089
2006.	0.54	6598.	0.088
2008.	0.536	6600.	0.089
2010.	0.534	6602.	0.089
2012.	0.536	6604.	0.086
2014.	0.533	6606.	0.087
2016.	0.533	6608.	0.092
2018.	0.533	6610.	0.088
2020.	0.535	6612.	0.088
2022.	0.533	6614.	0.089
2024.	0.53	6616.	0.09
2026.	0.537	6618.	0.088
2028.	0.534	6620.	0.09
2030.	0.53	6622.	0.085
2032.	0.53	6624.	0.089
2034.	0.53	6626.	0.088
2036.	0.529	6628.	0.087
2038.	0.529	6630.	0.089
2040.	0.529	6632.	0.087

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2042.	0.528	6634.	0.088
2044.	0.528	6636.	0.089
2046.	0.53	6638.	0.085
2048.	0.53	6640.	0.087
2050.	0.528	6642.	0.084
2052.	0.529	6644.	0.087
2054.	0.526	6646.	0.088
2056.	0.525	6648.	0.086
2058.	0.525	6650.	0.087
2060.	0.526	6652.	0.085
2062.	0.525	6654.	0.087
2064.	0.525	6656.	0.084
2066.	0.525	6658.	0.089
2068.	0.522	6660.	0.085
2070.	0.524	6662.	0.086
2072.	0.521	6664.	0.084
2074.	0.522	6666.	0.087
2076.	0.526	6668.	0.088
2078.	0.524	6670.	0.085
2080.	0.522	6672.	0.085
2082.	0.521	6674.	0.085
2084.	0.518	6676.	0.082
2086.	0.52	6678.	0.084
2088.	0.52	6680.	0.084
2090.	0.52	6682.	0.086
2092.	0.521	6684.	0.088
2094.	0.517	6686.	0.084
2096.	0.519	6688.	0.082
2098.	0.521	6690.	0.087
2100.	0.521	6692.	0.081
2102.	0.518	6694.	0.086
2104.	0.516	6696.	0.085
2106.	0.515	6698.	0.084
2108.	0.516	6700.	0.081
2110.	0.518	6702.	0.084
2112.	0.515	6704.	0.085
2114.	0.516	6706.	0.083
2116.	0.513	6708.	0.089
2118.	0.514	6710.	0.084
2120.	0.513	6712.	0.082
2122.	0.513	6714.	0.084
2124.	0.516	6716.	0.081
2126.	0.516	6718.	0.082
2128.	0.512	6720.	0.083
2130.	0.509	6722.	0.083
2132.	0.511	6724.	0.083
2134.	0.509	6726.	0.082
2136.	0.508	6728.	0.081
2138.	0.511	6730.	0.08
2140.	0.511	6732.	0.085
2142.	0.507	6734.	0.08
2144.	0.508	6736.	0.083
2146.	0.511	6738.	0.084
2148.	0.505	6740.	0.081
2150.	0.509	6742.	0.082
2152.	0.508	6744.	0.083
2154.	0.508	6746.	0.08
2156.	0.509	6748.	0.083
2158.	0.506	6750.	0.078
2160.	0.504	6752.	0.082
2162.	0.51	6754.	0.08
2164.	0.506	6756.	0.08
2166.	0.502	6758.	0.079
2168.	0.507	6760.	0.082
2170.	0.507	6762.	0.08
2172.	0.503	6764.	0.081

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2174.	0.504	6766.	0.08
2176.	0.501	6768.	0.082
2178.	0.505	6770.	0.081
2180.	0.506	6772.	0.081
2182.	0.501	6774.	0.081
2184.	0.501	6776.	0.084
2186.	0.499	6778.	0.081
2188.	0.503	6780.	0.082
2190.	0.499	6782.	0.079
2192.	0.498	6784.	0.08
2194.	0.497	6786.	0.078
2196.	0.5	6788.	0.076
2198.	0.499	6790.	0.078
2200.	0.498	6792.	0.082
2202.	0.501	6794.	0.084
2204.	0.496	6796.	0.079
2206.	0.499	6798.	0.08
2208.	0.5	6800.	0.08
2210.	0.497	6802.	0.079
2212.	0.499	6804.	0.076
2214.	0.495	6806.	0.079
2216.	0.496	6808.	0.08
2218.	0.499	6810.	0.079
2220.	0.494	6812.	0.08
2222.	0.495	6814.	0.078
2224.	0.493	6816.	0.077
2226.	0.494	6818.	0.075
2228.	0.494	6820.	0.08
2230.	0.495	6822.	0.078
2232.	0.49	6824.	0.08
2234.	0.494	6826.	0.076
2236.	0.488	6828.	0.076
2238.	0.49	6830.	0.077
2240.	0.491	6832.	0.079
2242.	0.491	6834.	0.078
2244.	0.491	6836.	0.079
2246.	0.492	6838.	0.077
2248.	0.49	6840.	0.076
2250.	0.491	6842.	0.078
2252.	0.49	6844.	0.076
2254.	0.487	6846.	0.077
2256.	0.49	6848.	0.077
2258.	0.485	6850.	0.077
2260.	0.49	6852.	0.079
2262.	0.485	6854.	0.076
2264.	0.491	6856.	0.077
2266.	0.488	6858.	0.075
2268.	0.482	6860.	0.077
2270.	0.485	6862.	0.078
2272.	0.483	6864.	0.077
2274.	0.484	6866.	0.076
2276.	0.483	6868.	0.08
2278.	0.485	6870.	0.08
2280.	0.485	6872.	0.078
2282.	0.484	6874.	0.08
2284.	0.481	6876.	0.077
2286.	0.484	6878.	0.076
2288.	0.483	6880.	0.077
2290.	0.482	6882.	0.074
2292.	0.477	6884.	0.076
2294.	0.478	6886.	0.074
2296.	0.482	6888.	0.078
2298.	0.479	6890.	0.075
2300.	0.48	6892.	0.072
2302.	0.479	6894.	0.075
2304.	0.482	6896.	0.078

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2306.	0.482	6898.	0.072
2308.	0.477	6900.	0.076
2310.	0.481	6902.	0.074
2312.	0.483	6904.	0.075
2314.	0.478	6906.	0.074
2316.	0.481	6908.	0.074
2318.	0.477	6910.	0.075
2320.	0.477	6912.	0.073
2322.	0.478	6914.	0.073
2324.	0.478	6916.	0.073
2326.	0.476	6918.	0.074
2328.	0.475	6920.	0.076
2330.	0.474	6922.	0.075
2332.	0.473	6924.	0.074
2334.	0.476	6926.	0.073
2336.	0.476	6928.	0.075
2338.	0.473	6930.	0.075
2340.	0.475	6932.	0.072
2342.	0.47	6934.	0.074
2344.	0.473	6936.	0.074
2346.	0.47	6938.	0.073
2348.	0.473	6940.	0.073
2350.	0.471	6942.	0.075
2352.	0.47	6944.	0.072
2354.	0.472	6946.	0.073
2356.	0.471	6948.	0.071
2358.	0.468	6950.	0.07
2360.	0.469	6952.	0.076
2362.	0.47	6954.	0.071
2364.	0.467	6956.	0.073
2366.	0.469	6958.	0.072
2368.	0.469	6960.	0.07
2370.	0.466	6962.	0.072
2372.	0.466	6964.	0.072
2374.	0.468	6966.	0.077
2376.	0.468	6968.	0.069
2378.	0.463	6970.	0.071
2380.	0.466	6972.	0.072
2382.	0.465	6974.	0.074
2384.	0.468	6976.	0.071
2386.	0.464	6978.	0.071
2388.	0.465	6980.	0.071
2390.	0.465	6982.	0.07
2392.	0.465	6984.	0.071
2394.	0.465	6986.	0.075
2396.	0.461	6988.	0.073
2398.	0.461	6990.	0.074
2400.	0.463	6992.	0.071
2402.	0.462	6994.	0.072
2404.	0.463	6996.	0.069
2406.	0.461	6998.	0.07
2408.	0.462	7000.	0.071
2410.	0.462	7002.	0.072
2412.	0.463	7004.	0.07
2414.	0.463	7006.	0.07
2416.	0.462	7008.	0.07
2418.	0.46	7010.	0.071
2420.	0.459	7012.	0.073
2422.	0.458	7014.	0.073
2424.	0.458	7016.	0.07
2426.	0.459	7018.	0.074
2428.	0.458	7020.	0.071
2430.	0.458	7022.	0.071
2432.	0.458	7024.	0.07
2434.	0.459	7026.	0.067
2436.	0.457	7028.	0.071

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2438.	0.457	7030.	0.069
2440.	0.458	7032.	0.071
2442.	0.458	7034.	0.072
2444.	0.455	7036.	0.072
2446.	0.454	7038.	0.067
2448.	0.453	7040.	0.069
2450.	0.454	7042.	0.073
2452.	0.454	7044.	0.069
2454.	0.453	7046.	0.067
2456.	0.453	7048.	0.069
2458.	0.457	7050.	0.069
2460.	0.451	7052.	0.069
2462.	0.451	7054.	0.07
2464.	0.45	7056.	0.071
2466.	0.451	7058.	0.072
2468.	0.45	7060.	0.066
2470.	0.452	7062.	0.068
2472.	0.448	7064.	0.068
2474.	0.454	7066.	0.065
2476.	0.448	7068.	0.068
2478.	0.45	7070.	0.068
2480.	0.448	7072.	0.065
2482.	0.448	7074.	0.066
2484.	0.451	7076.	0.069
2486.	0.446	7078.	0.074
2488.	0.449	7080.	0.07
2490.	0.449	7082.	0.066
2492.	0.452	7084.	0.068
2494.	0.446	7086.	0.071
2496.	0.445	7088.	0.066
2498.	0.448	7090.	0.069
2500.	0.448	7092.	0.069
2502.	0.446	7094.	0.067
2504.	0.445	7096.	0.069
2506.	0.448	7098.	0.066
2508.	0.445	7100.	0.068
2510.	0.443	7102.	0.068
2512.	0.447	7104.	0.068
2514.	0.445	7106.	0.069
2516.	0.445	7108.	0.068
2518.	0.445	7110.	0.065
2520.	0.444	7112.	0.068
2522.	0.442	7114.	0.066
2524.	0.443	7116.	0.064
2526.	0.443	7118.	0.07
2528.	0.443	7120.	0.066
2530.	0.44	7122.	0.064
2532.	0.439	7124.	0.065
2534.	0.442	7126.	0.069
2536.	0.439	7128.	0.064
2538.	0.439	7130.	0.064
2540.	0.441	7132.	0.067
2542.	0.44	7134.	0.066
2544.	0.441	7136.	0.064
2546.	0.439	7138.	0.065
2548.	0.439	7140.	0.065
2550.	0.436	7142.	0.068
2552.	0.436	7144.	0.063
2554.	0.436	7146.	0.064
2556.	0.436	7148.	0.065
2558.	0.439	7150.	0.069
2560.	0.438	7152.	0.068
2562.	0.436	7154.	0.067
2564.	0.435	7156.	0.067
2566.	0.434	7158.	0.066
2568.	0.438	7160.	0.066

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2570.	0.428	7162.	0.068
2572.	0.434	7164.	0.065
2574.	0.437	7166.	0.064
2576.	0.432	7168.	0.06
2578.	0.433	7170.	0.064
2580.	0.432	7172.	0.068
2582.	0.437	7174.	0.065
2584.	0.431	7176.	0.072
2586.	0.43	7178.	0.066
2588.	0.433	7180.	0.068
2590.	0.432	7182.	0.067
2592.	0.43	7184.	0.062
2594.	0.433	7186.	0.064
2596.	0.429	7188.	0.064
2598.	0.432	7190.	0.061
2600.	0.433	7192.	0.062
2602.	0.43	7194.	0.065
2604.	0.431	7196.	0.063
2606.	0.429	7198.	0.064
2608.	0.429	7200.	0.066
2610.	0.427	7202.	0.067
2612.	0.427	7204.	0.063
2614.	0.427	7206.	0.062
2616.	0.426	7208.	0.066
2618.	0.428	7210.	0.066
2620.	0.426	7212.	0.065
2622.	0.423	7214.	0.061
2624.	0.425	7216.	0.064
2626.	0.426	7218.	0.061
2628.	0.427	7220.	0.063
2630.	0.423	7222.	0.065
2632.	0.425	7224.	0.059
2634.	0.422	7226.	0.059
2636.	0.426	7228.	0.063
2638.	0.425	7230.	0.062
2640.	0.421	7232.	0.063
2642.	0.423	7234.	0.063
2644.	0.425	7236.	0.06
2646.	0.42	7238.	0.061
2648.	0.425	7240.	0.063
2650.	0.425	7242.	0.065
2652.	0.423	7244.	0.063
2654.	0.421	7246.	0.061
2656.	0.421	7248.	0.059
2658.	0.423	7250.	0.06
2660.	0.418	7252.	0.061
2662.	0.421	7254.	0.06
2664.	0.417	7256.	0.062
2666.	0.419	7258.	0.06
2668.	0.42	7260.	0.061
2670.	0.416	7262.	0.061
2672.	0.418	7264.	0.059
2674.	0.418	7266.	0.061
2676.	0.416	7268.	0.06
2678.	0.415	7270.	0.061
2680.	0.414	7272.	0.061
2682.	0.419	7274.	0.062
2684.	0.416	7276.	0.06
2686.	0.412	7278.	0.059
2688.	0.413	7280.	0.062
2690.	0.417	7282.	0.065
2692.	0.417	7284.	0.06
2694.	0.415	7286.	0.062
2696.	0.415	7288.	0.06
2698.	0.417	7290.	0.061
2700.	0.414	7292.	0.058

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2702.	0.413	7294.	0.058
2704.	0.414	7296.	0.058
2706.	0.416	7298.	0.06
2708.	0.417	7300.	0.064
2710.	0.415	7302.	0.057
2712.	0.41	7304.	0.061
2714.	0.412	7306.	0.061
2716.	0.414	7308.	0.055
2718.	0.411	7310.	0.059
2720.	0.412	7312.	0.064
2722.	0.409	7314.	0.056
2724.	0.41	7316.	0.058
2726.	0.411	7318.	0.057
2728.	0.411	7320.	0.061
2730.	0.41	7322.	0.059
2732.	0.408	7324.	0.06
2734.	0.408	7326.	0.058
2736.	0.404	7328.	0.058
2738.	0.408	7330.	0.059
2740.	0.409	7332.	0.057
2742.	0.411	7334.	0.059
2744.	0.409	7336.	0.057
2746.	0.407	7338.	0.057
2748.	0.406	7340.	0.059
2750.	0.406	7342.	0.059
2752.	0.405	7344.	0.057
2754.	0.407	7346.	0.057
2756.	0.408	7348.	0.057
2758.	0.405	7350.	0.057
2760.	0.403	7352.	0.056
2762.	0.407	7354.	0.06
2764.	0.408	7356.	0.057
2766.	0.403	7358.	0.055
2768.	0.402	7360.	0.053
2770.	0.404	7362.	0.059
2772.	0.407	7364.	0.057
2774.	0.401	7366.	0.054
2776.	0.404	7368.	0.056
2778.	0.4	7370.	0.056
2780.	0.404	7372.	0.054
2782.	0.4	7374.	0.056
2784.	0.4	7376.	0.057
2786.	0.398	7378.	0.057
2788.	0.398	7380.	0.057
2790.	0.402	7382.	0.055
2792.	0.4	7384.	0.056
2794.	0.403	7386.	0.057
2796.	0.398	7388.	0.057
2798.	0.401	7390.	0.055
2800.	0.398	7392.	0.053
2802.	0.4	7394.	0.053
2804.	0.396	7396.	0.055
2806.	0.398	7398.	0.055
2808.	0.398	7400.	0.056
2810.	0.398	7402.	0.054
2812.	0.399	7404.	0.056
2814.	0.396	7406.	0.053
2816.	0.399	7408.	0.057
2818.	0.395	7410.	0.053
2820.	0.396	7412.	0.054
2822.	0.393	7414.	0.053
2824.	0.392	7416.	0.058
2826.	0.395	7418.	0.055
2828.	0.396	7420.	0.055
2830.	0.399	7422.	0.052
2832.	0.393	7424.	0.054

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2834.	0.392	7426.	0.055
2836.	0.392	7428.	0.054
2838.	0.394	7430.	0.053
2840.	0.393	7432.	0.055
2842.	0.393	7434.	0.052
2844.	0.393	7436.	0.052
2846.	0.39	7438.	0.053
2848.	0.392	7440.	0.051
2850.	0.391	7442.	0.05
2852.	0.388	7444.	0.053
2854.	0.391	7446.	0.05
2856.	0.39	7448.	0.053
2858.	0.393	7450.	0.053
2860.	0.389	7452.	0.053
2862.	0.392	7454.	0.052
2864.	0.39	7456.	0.051
2866.	0.388	7458.	0.052
2868.	0.388	7460.	0.053
2870.	0.389	7462.	0.05
2872.	0.39	7464.	0.053
2874.	0.387	7466.	0.055
2876.	0.386	7468.	0.054
2878.	0.386	7470.	0.052
2880.	0.388	7472.	0.051
2882.	0.386	7474.	0.051
2884.	0.386	7476.	0.053
2886.	0.388	7478.	0.053
2888.	0.389	7480.	0.054
2890.	0.387	7482.	0.054
2892.	0.384	7484.	0.051
2894.	0.386	7486.	0.047
2896.	0.389	7488.	0.051
2898.	0.383	7490.	0.052
2900.	0.385	7492.	0.055
2902.	0.386	7494.	0.05
2904.	0.384	7496.	0.05
2906.	0.385	7498.	0.052
2908.	0.383	7500.	0.053
2910.	0.381	7502.	0.05
2912.	0.381	7504.	0.047
2914.	0.387	7506.	0.053
2916.	0.381	7508.	0.05
2918.	0.387	7510.	0.05
2920.	0.381	7512.	0.049
2922.	0.38	7514.	0.049
2924.	0.379	7516.	0.052
2926.	0.379	7518.	0.05
2928.	0.378	7520.	0.052
2930.	0.381	7522.	0.048
2932.	0.377	7524.	0.051
2934.	0.379	7526.	0.053
2936.	0.379	7528.	0.051
2938.	0.38	7530.	0.047
2940.	0.378	7532.	0.047
2942.	0.379	7534.	0.052
2944.	0.377	7536.	0.049
2946.	0.381	7538.	0.048
2948.	0.378	7540.	0.05
2950.	0.381	7542.	0.048
2952.	0.374	7544.	0.052
2954.	0.379	7546.	0.052
2956.	0.373	7548.	0.054
2958.	0.376	7550.	0.05
2960.	0.377	7552.	0.05
2962.	0.375	7554.	0.05
2964.	0.377	7556.	0.046

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2966.	0.374	7558.	0.048
2968.	0.375	7560.	0.049
2970.	0.376	7562.	0.05
2972.	0.376	7564.	0.048
2974.	0.372	7566.	0.047
2976.	0.373	7568.	0.046
2978.	0.374	7570.	0.048
2980.	0.373	7572.	0.047
2982.	0.371	7574.	0.048
2984.	0.368	7576.	0.05
2986.	0.373	7578.	0.047
2988.	0.37	7580.	0.045
2990.	0.373	7582.	0.047
2992.	0.373	7584.	0.046
2994.	0.37	7586.	0.048
2996.	0.37	7588.	0.048
2998.	0.369	7590.	0.049
3000.	0.374	7592.	0.048
3002.	0.368	7594.	0.049
3004.	0.37	7596.	0.046
3006.	0.369	7598.	0.052
3008.	0.369	7600.	0.047
3010.	0.369	7602.	0.045
3012.	0.367	7604.	0.047
3014.	0.37	7606.	0.048
3016.	0.367	7608.	0.047
3018.	0.363	7610.	0.046
3020.	0.368	7612.	0.048
3022.	0.366	7614.	0.047
3024.	0.364	7616.	0.044
3026.	0.368	7618.	0.045
3028.	0.365	7620.	0.047
3030.	0.368	7622.	0.041
3032.	0.365	7624.	0.051
3034.	0.365	7626.	0.046
3036.	0.365	7628.	0.044
3038.	0.362	7630.	0.041
3040.	0.362	7632.	0.045
3042.	0.367	7634.	0.046
3044.	0.362	7636.	0.046
3046.	0.364	7638.	0.046
3048.	0.362	7640.	0.045
3050.	0.366	7642.	0.045
3052.	0.364	7644.	0.046
3054.	0.362	7646.	0.046
3056.	0.361	7648.	0.041
3058.	0.364	7650.	0.046
3060.	0.363	7652.	0.045
3062.	0.362	7654.	0.047
3064.	0.362	7656.	0.047
3066.	0.359	7658.	0.046
3068.	0.36	7660.	0.049
3070.	0.362	7662.	0.045
3072.	0.358	7664.	0.046
3074.	0.358	7666.	0.049
3076.	0.361	7668.	0.045
3078.	0.357	7670.	0.049
3080.	0.361	7672.	0.044
3082.	0.361	7674.	0.046
3084.	0.357	7676.	0.046
3086.	0.361	7678.	0.044
3088.	0.358	7680.	0.042
3090.	0.358	7682.	0.046
3092.	0.36	7684.	0.043
3094.	0.357	7686.	0.046
3096.	0.356	7688.	0.042

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3098.	0.354	7690.	0.049
3100.	0.359	7692.	0.042
3102.	0.356	7694.	0.042
3104.	0.356	7696.	0.043
3106.	0.356	7698.	0.043
3108.	0.358	7700.	0.045
3110.	0.352	7702.	0.048
3112.	0.358	7704.	0.041
3114.	0.354	7706.	0.042
3116.	0.351	7708.	0.041
3118.	0.355	7710.	0.051
3120.	0.353	7712.	0.042
3122.	0.353	7714.	0.046
3124.	0.354	7716.	0.042
3126.	0.351	7718.	0.042
3128.	0.353	7720.	0.045
3130.	0.353	7722.	0.043
3132.	0.355	7724.	0.036
3134.	0.353	7726.	0.039
3136.	0.35	7728.	0.042
3138.	0.354	7730.	0.045
3140.	0.351	7732.	0.043
3142.	0.352	7734.	0.046
3144.	0.35	7736.	0.041
3146.	0.351	7738.	0.047
3148.	0.348	7740.	0.039
3150.	0.349	7742.	0.043
3152.	0.348	7744.	0.042
3154.	0.346	7746.	0.044
3156.	0.35	7748.	0.042
3158.	0.348	7750.	0.045
3160.	0.351	7752.	0.042
3162.	0.348	7754.	0.045
3164.	0.347	7756.	0.047
3166.	0.347	7758.	0.036
3168.	0.349	7760.	0.038
3170.	0.348	7762.	0.04
3172.	0.344	7764.	0.043
3174.	0.349	7766.	0.041
3176.	0.346	7768.	0.042
3178.	0.346	7770.	0.043
3180.	0.346	7772.	0.042
3182.	0.343	7774.	0.04
3184.	0.345	7776.	0.043
3186.	0.345	7778.	0.043
3188.	0.344	7780.	0.044
3190.	0.341	7782.	0.049
3192.	0.341	7784.	0.041
3194.	0.342	7786.	0.042
3196.	0.34	7788.	0.036
3198.	0.343	7790.	0.045
3200.	0.342	7792.	0.046
3202.	0.345	7794.	0.038
3204.	0.343	7796.	0.048
3206.	0.341	7798.	0.042
3208.	0.341	7800.	0.038
3210.	0.344	7802.	0.043
3212.	0.343	7804.	0.042
3214.	0.339	7806.	0.042
3216.	0.34	7808.	0.041
3218.	0.343	7810.	0.036
3220.	0.342	7812.	0.038
3222.	0.339	7814.	0.039
3224.	0.342	7816.	0.043
3226.	0.337	7818.	0.041
3228.	0.344	7820.	0.041

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3230.	0.34	7822.	0.04
3232.	0.338	7824.	0.038
3234.	0.339	7826.	0.043
3236.	0.339	7828.	0.04
3238.	0.338	7830.	0.042
3240.	0.338	7832.	0.04
3242.	0.343	7834.	0.038
3244.	0.341	7836.	0.042
3246.	0.338	7838.	0.043
3248.	0.335	7840.	0.043
3250.	0.337	7842.	0.037
3252.	0.335	7844.	0.037
3254.	0.335	7846.	0.036
3256.	0.334	7848.	0.04
3258.	0.334	7850.	0.037
3260.	0.334	7852.	0.041
3262.	0.335	7854.	0.039
3264.	0.336	7856.	0.037
3266.	0.336	7858.	0.039
3268.	0.336	7860.	0.035
3270.	0.333	7862.	0.038
3272.	0.334	7864.	0.036
3274.	0.336	7866.	0.04
3276.	0.334	7868.	0.039
3278.	0.336	7870.	0.033
3280.	0.332	7872.	0.034
3282.	0.333	7874.	0.035
3284.	0.331	7876.	0.035
3286.	0.332	7878.	0.039
3288.	0.332	7880.	0.042
3290.	0.332	7882.	0.036
3292.	0.331	7884.	0.036
3294.	0.336	7886.	0.033
3296.	0.331	7888.	0.037
3298.	0.332	7890.	0.038
3300.	0.332	7892.	0.037
3302.	0.329	7894.	0.037
3304.	0.328	7896.	0.037
3306.	0.331	7898.	0.038
3308.	0.33	7900.	0.037
3310.	0.327	7902.	0.037
3312.	0.327	7904.	0.037
3314.	0.326	7906.	0.037
3316.	0.328	7908.	0.037
3318.	0.329	7910.	0.035
3320.	0.328	7912.	0.037
3322.	0.325	7914.	0.038
3324.	0.33	7916.	0.037
3326.	0.327	7918.	0.04
3328.	0.325	7920.	0.035
3330.	0.329	7922.	0.035
3332.	0.328	7924.	0.035
3334.	0.323	7926.	0.04
3336.	0.326	7928.	0.034
3338.	0.327	7930.	0.036
3340.	0.323	7932.	0.038
3342.	0.325	7934.	0.037
3344.	0.325	7936.	0.035
3346.	0.324	7938.	0.033
3348.	0.321	7940.	0.035
3350.	0.325	7942.	0.035
3352.	0.323	7944.	0.036
3354.	0.323	7946.	0.039
3356.	0.323	7948.	0.04
3358.	0.326	7950.	0.037
3360.	0.322	7952.	0.032

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3362.	0.324	7954.	0.042
3364.	0.323	7956.	0.034
3366.	0.323	7958.	0.034
3368.	0.323	7960.	0.033
3370.	0.321	7962.	0.034
3372.	0.323	7964.	0.034
3374.	0.322	7966.	0.034
3376.	0.322	7968.	0.038
3378.	0.322	7970.	0.037
3380.	0.322	7972.	0.034
3382.	0.321	7974.	0.035
3384.	0.319	7976.	0.035
3386.	0.32	7978.	0.034
3388.	0.319	7980.	0.036
3390.	0.323	7982.	0.036
3392.	0.321	7984.	0.036
3394.	0.316	7986.	0.035
3396.	0.319	7988.	0.036
3398.	0.318	7990.	0.036
3400.	0.319	7992.	0.034
3402.	0.32	7994.	0.034
3404.	0.316	7996.	0.032
3406.	0.318	7998.	0.037
3408.	0.32	8000.	0.034
3410.	0.315	8002.	0.037
3412.	0.315	8004.	0.034
3414.	0.316	8006.	0.034
3416.	0.315	8008.	0.033
3418.	0.316	8010.	0.033
3420.	0.315	8012.	0.037
3422.	0.318	8014.	0.034
3424.	0.316	8016.	0.033
3426.	0.313	8018.	0.034
3428.	0.314	8020.	0.032
3430.	0.315	8022.	0.031
3432.	0.313	8024.	0.031
3434.	0.311	8026.	0.03
3436.	0.312	8028.	0.033
3438.	0.314	8030.	0.031
3440.	0.311	8032.	0.034
3442.	0.311	8034.	0.033
3444.	0.316	8036.	0.029
3446.	0.311	8038.	0.032
3448.	0.314	8040.	0.033
3450.	0.312	8042.	0.031
3452.	0.316	8044.	0.033
3454.	0.309	8046.	0.031
3456.	0.311	8048.	0.029
3458.	0.311	8050.	0.03
3460.	0.312	8052.	0.032
3462.	0.311	8054.	0.03
3464.	0.309	8056.	0.032
3466.	0.31	8058.	0.037
3468.	0.31	8060.	0.033
3470.	0.309	8062.	0.033
3472.	0.309	8064.	0.033
3474.	0.312	8066.	0.03
3476.	0.307	8068.	0.033
3478.	0.309	8070.	0.032
3480.	0.31	8072.	0.034
3482.	0.308	8074.	0.035
3484.	0.308	8076.	0.03
3486.	0.304	8078.	0.031
3488.	0.306	8080.	0.033
3490.	0.308	8082.	0.035
3492.	0.306	8084.	0.031

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3494.	0.307	8086.	0.032
3496.	0.303	8088.	0.031
3498.	0.31	8090.	0.032
3500.	0.308	8092.	0.029
3502.	0.308	8094.	0.031
3504.	0.306	8096.	0.032
3506.	0.307	8098.	0.033
3508.	0.305	8100.	0.03
3510.	0.308	8102.	0.033
3512.	0.305	8104.	0.032
3514.	0.303	8106.	0.034
3516.	0.305	8108.	0.029
3518.	0.303	8110.	0.033
3520.	0.308	8112.	0.03
3522.	0.304	8114.	0.032
3524.	0.304	8116.	0.029
3526.	0.307	8118.	0.033
3528.	0.301	8120.	0.03
3530.	0.301	8122.	0.035
3532.	0.302	8124.	0.031
3534.	0.306	8126.	0.033
3536.	0.3	8128.	0.03
3538.	0.301	8130.	0.031
3540.	0.304	8132.	0.029
3542.	0.3	8134.	0.031
3544.	0.302	8136.	0.031
3546.	0.303	8138.	0.029
3548.	0.299	8140.	0.032
3550.	0.302	8142.	0.033
3552.	0.301	8144.	0.034
3554.	0.297	8146.	0.029
3556.	0.296	8148.	0.034
3558.	0.297	8150.	0.03
3560.	0.299	8152.	0.031
3562.	0.297	8154.	0.035
3564.	0.299	8156.	0.032
3566.	0.3	8158.	0.03
3568.	0.3	8160.	0.031
3570.	0.297	8162.	0.031
3572.	0.298	8164.	0.034
3574.	0.297	8166.	0.032
3576.	0.297	8168.	0.03
3578.	0.299	8170.	0.031
3580.	0.296	8172.	0.029
3582.	0.296	8174.	0.03
3584.	0.295	8176.	0.029
3586.	0.297	8178.	0.029
3588.	0.298	8180.	0.03
3590.	0.297	8182.	0.03
3592.	0.294	8184.	0.032
3594.	0.299	8186.	0.033
3596.	0.297	8188.	0.032
3598.	0.297	8190.	0.029
3600.	0.295	8192.	0.032
3602.	0.295	8194.	0.034
3604.	0.294	8196.	0.031
3606.	0.295	8198.	0.031
3608.	0.294	8200.	0.031
3610.	0.294	8202.	0.03
3612.	0.293	8204.	0.03
3614.	0.292	8206.	0.033
3616.	0.291	8208.	0.029
3618.	0.291	8210.	0.029
3620.	0.294	8212.	0.034
3622.	0.293	8214.	0.033
3624.	0.292	8216.	0.036

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3626.	0.289	8218.	0.03
3628.	0.29	8220.	0.037
3630.	0.289	8222.	0.04
3632.	0.289	8224.	0.036
3634.	0.288	8226.	0.035
3636.	0.286	8228.	0.033
3638.	0.29	8230.	0.034
3640.	0.291	8232.	0.037
3642.	0.29	8234.	0.032
3644.	0.288	8236.	0.04
3646.	0.289	8238.	0.036
3648.	0.288	8240.	0.034
3650.	0.29	8242.	0.034
3652.	0.29	8244.	0.033
3654.	0.287	8246.	0.037
3656.	0.289	8248.	0.034
3658.	0.288	8250.	0.035
3660.	0.289	8252.	0.036
3662.	0.288	8254.	0.037
3664.	0.285	8256.	0.036
3666.	0.286	8258.	0.033
3668.	0.291	8260.	0.037
3670.	0.286	8262.	0.038
3672.	0.286	8264.	0.037
3674.	0.286	8266.	0.037
3676.	0.286	8268.	0.035
3678.	0.287	8270.	0.034
3680.	0.287	8272.	0.033
3682.	0.286	8274.	0.034
3684.	0.286	8276.	0.035
3686.	0.289	8278.	0.035
3688.	0.285	8280.	0.035
3690.	0.286	8282.	0.035
3692.	0.289	8284.	0.037
3694.	0.284	8286.	0.033
3696.	0.287	8288.	0.033
3698.	0.281	8290.	0.038
3700.	0.283	8292.	0.035
3702.	0.282	8294.	0.033
3704.	0.282	8296.	0.032
3706.	0.283	8298.	0.034
3708.	0.282	8300.	0.034
3710.	0.28	8302.	0.033
3712.	0.282	8304.	0.032
3714.	0.283	8306.	0.035
3716.	0.284	8308.	0.035
3718.	0.281	8310.	0.031
3720.	0.279	8312.	0.034
3722.	0.278	8314.	0.033
3724.	0.28	8316.	0.034
3726.	0.28	8318.	0.03
3728.	0.282	8320.	0.033
3730.	0.279	8322.	0.031
3732.	0.279	8324.	0.032
3734.	0.279	8326.	0.032
3736.	0.28	8328.	0.03
3738.	0.283	8330.	0.03
3740.	0.279	8332.	0.032
3742.	0.282	8334.	0.032
3744.	0.281	8336.	0.034
3746.	0.28	8338.	0.032
3748.	0.277	8340.	0.032
3750.	0.277	8342.	0.034
3752.	0.279	8344.	0.033
3754.	0.276	8346.	0.032
3756.	0.276	8348.	0.031

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3758.	0.281	8350.	0.033
3760.	0.278	8352.	0.033
3762.	0.276	8354.	0.029
3764.	0.278	8356.	0.029
3766.	0.277	8358.	0.034
3768.	0.275	8360.	0.03
3770.	0.274	8362.	0.033
3772.	0.276	8364.	0.031
3774.	0.273	8366.	0.032
3776.	0.274	8368.	0.029
3778.	0.275	8370.	0.029
3780.	0.273	8372.	0.033
3782.	0.273	8374.	0.036
3784.	0.273	8376.	0.033
3786.	0.274	8378.	0.033
3788.	0.273	8380.	0.032
3790.	0.274	8382.	0.028
3792.	0.273	8384.	0.031
3794.	0.271	8386.	0.03
3796.	0.274	8388.	0.029
3798.	0.273	8390.	0.031
3800.	0.271	8392.	0.032
3802.	0.274	8394.	0.029
3804.	0.275	8396.	0.03
3806.	0.272	8398.	0.03
3808.	0.271	8400.	0.029
3810.	0.27	8402.	0.03
3812.	0.272	8404.	0.025
3814.	0.269	8406.	0.028
3816.	0.269	8408.	0.028
3818.	0.27	8410.	0.032
3820.	0.267	8412.	0.03
3822.	0.27	8414.	0.031
3824.	0.269	8416.	0.03
3826.	0.267	8418.	0.029
3828.	0.268	8420.	0.03
3830.	0.271	8422.	0.027
3832.	0.269	8424.	0.026
3834.	0.27	8426.	0.028
3836.	0.267	8428.	0.031
3838.	0.271	8430.	0.031
3840.	0.268	8432.	0.03
3842.	0.268	8434.	0.033
3844.	0.269	8436.	0.029
3846.	0.269	8438.	0.028
3848.	0.267	8440.	0.025
3850.	0.267	8442.	0.03
3852.	0.269	8444.	0.03
3854.	0.266	8446.	0.029
3856.	0.266	8448.	0.029
3858.	0.265	8450.	0.028
3860.	0.266	8452.	0.029
3862.	0.265	8454.	0.031
3864.	0.267	8456.	0.03
3866.	0.265	8458.	0.031
3868.	0.267	8460.	0.031
3870.	0.265	8462.	0.03
3872.	0.266	8464.	0.028
3874.	0.264	8466.	0.021
3876.	0.267	8468.	0.029
3878.	0.267	8470.	0.028
3880.	0.264	8472.	0.03
3882.	0.264	8474.	0.027
3884.	0.264	8476.	0.026
3886.	0.265	8478.	0.025
3888.	0.266	8480.	0.026

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3890.	0.264	8482.	0.025
3892.	0.263	8484.	0.029
3894.	0.262	8486.	0.024
3896.	0.262	8488.	0.028
3898.	0.266	8490.	0.028
3900.	0.262	8492.	0.024
3902.	0.263	8494.	0.024
3904.	0.262	8496.	0.026
3906.	0.263	8498.	0.028
3908.	0.261	8500.	0.028
3910.	0.259	8502.	0.025
3912.	0.259	8504.	0.027
3914.	0.261	8506.	0.029
3916.	0.26	8508.	0.026
3918.	0.259	8510.	0.024
3920.	0.258	8512.	0.024
3922.	0.262	8514.	0.026
3924.	0.262	8516.	0.027
3926.	0.261	8518.	0.026
3928.	0.261	8520.	0.025
3930.	0.258	8522.	0.023
3932.	0.259	8524.	0.025
3934.	0.26	8526.	0.022
3936.	0.257	8528.	0.023
3938.	0.26	8530.	0.028
3940.	0.258	8532.	0.026
3942.	0.255	8534.	0.024
3944.	0.258	8536.	0.026
3946.	0.258	8538.	0.026
3948.	0.258	8540.	0.025
3950.	0.259	8542.	0.026
3952.	0.254	8544.	0.025
3954.	0.257	8546.	0.025
3956.	0.258	8548.	0.026
3958.	0.256	8550.	0.023
3960.	0.258	8552.	0.025
3962.	0.258	8554.	0.025
3964.	0.252	8556.	0.026
3966.	0.256	8558.	0.026
3968.	0.256	8560.	0.026
3970.	0.258	8562.	0.023
3972.	0.255	8564.	0.02
3974.	0.254	8566.	0.024
3976.	0.258	8568.	0.027
3978.	0.252	8570.	0.021
3980.	0.255	8572.	0.023
3982.	0.257	8574.	0.023
3984.	0.253	8576.	0.026
3986.	0.255	8578.	0.025
3988.	0.251	8580.	0.022
3990.	0.252	8582.	0.021
3992.	0.252	8584.	0.021
3994.	0.254	8586.	0.023
3996.	0.255	8588.	0.023
3998.	0.253	8590.	0.022
4000.	0.252	8592.	0.024
4002.	0.253	8594.	0.021
4004.	0.251	8596.	0.022
4006.	0.255	8598.	0.024
4008.	0.251	8600.	0.021
4010.	0.253	8602.	0.022
4012.	0.251	8604.	0.021
4014.	0.251	8606.	0.025
4016.	0.254	8608.	0.02
4018.	0.249	8610.	0.021
4020.	0.251	8612.	0.023

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4022.	0.25	8614.	0.021
4024.	0.248	8616.	0.022
4026.	0.25	8618.	0.024
4028.	0.25	8620.	0.02
4030.	0.25	8622.	0.021
4032.	0.249	8624.	0.022
4034.	0.247	8626.	0.024
4036.	0.25	8628.	0.021
4038.	0.248	8630.	0.022
4040.	0.249	8632.	0.02
4042.	0.251	8634.	0.019
4044.	0.247	8636.	0.021
4046.	0.246	8638.	0.02
4048.	0.252	8640.	0.02
4050.	0.246	8642.	0.026
4052.	0.247	8644.	0.02
4054.	0.247	8646.	0.018
4056.	0.248	8648.	0.02
4058.	0.248	8650.	0.024
4060.	0.248	8652.	0.019
4062.	0.246	8654.	0.021
4064.	0.248	8656.	0.021
4066.	0.248	8658.	0.017
4068.	0.248	8660.	0.019
4070.	0.243	8662.	0.019
4072.	0.244	8664.	0.022
4074.	0.245	8666.	0.02
4076.	0.246	8668.	0.022
4078.	0.245	8670.	0.021
4080.	0.243	8672.	0.021
4082.	0.243	8674.	0.025
4084.	0.244	8676.	0.021
4086.	0.246	8678.	0.018
4088.	0.244	8680.	0.018
4090.	0.245	8682.	0.019
4092.	0.245	8684.	0.02
4094.	0.243	8686.	0.017
4096.	0.241	8688.	0.02
4098.	0.244	8690.	0.019
4100.	0.243	8692.	0.022
4102.	0.243	8694.	0.017
4104.	0.247	8696.	0.019
4106.	0.242	8698.	0.021
4108.	0.24	8700.	0.017
4110.	0.242	8702.	0.019
4112.	0.24	8704.	0.021
4114.	0.241	8706.	0.02
4116.	0.242	8708.	0.015
4118.	0.243	8710.	0.019
4120.	0.24	8712.	0.016
4122.	0.241	8714.	0.019
4124.	0.243	8716.	0.018
4126.	0.242	8718.	0.017
4128.	0.242	8720.	0.02
4130.	0.238	8722.	0.018
4132.	0.244	8724.	0.02
4134.	0.239	8726.	0.02
4136.	0.241	8728.	0.017
4138.	0.238	8730.	0.017
4140.	0.239	8732.	0.016
4142.	0.239	8734.	0.018
4144.	0.242	8736.	0.017
4146.	0.238	8738.	0.018
4148.	0.239	8740.	0.02
4150.	0.237	8742.	0.016
4152.	0.239	8744.	0.018

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4154.	0.241	8746.	0.015
4156.	0.236	8748.	0.013
4158.	0.237	8750.	0.016
4160.	0.238	8752.	0.02
4162.	0.235	8754.	0.018
4164.	0.238	8756.	0.017
4166.	0.233	8758.	0.019
4168.	0.235	8760.	0.015
4170.	0.237	8762.	0.016
4172.	0.234	8764.	0.016
4174.	0.236	8766.	0.019
4176.	0.236	8768.	0.018
4178.	0.238	8770.	0.02
4180.	0.234	8772.	0.017
4182.	0.237	8774.	0.017
4184.	0.234	8776.	0.02
4186.	0.235	8778.	0.014
4188.	0.233	8780.	0.016
4190.	0.233	8782.	0.021
4192.	0.232	8784.	0.014
4194.	0.236	8786.	0.017
4196.	0.232	8788.	0.018
4198.	0.233	8790.	0.017
4200.	0.233	8792.	0.014
4202.	0.237	8794.	0.016
4204.	0.234	8796.	0.019
4206.	0.231	8798.	0.013
4208.	0.23	8800.	0.017
4210.	0.232	8802.	0.018
4212.	0.232	8804.	0.017
4214.	0.232	8806.	0.017
4216.	0.231	8808.	0.016
4218.	0.231	8810.	0.016
4220.	0.233	8812.	0.015
4222.	0.232	8814.	0.017
4224.	0.233	8816.	0.015
4226.	0.23	8818.	0.014
4228.	0.232	8820.	0.015
4230.	0.234	8822.	0.015
4232.	0.232	8824.	0.018
4234.	0.23	8826.	0.013
4236.	0.228	8828.	0.015
4238.	0.232	8830.	0.016
4240.	0.231	8832.	0.013
4242.	0.228	8834.	0.013
4244.	0.229	8836.	0.014
4246.	0.232	8838.	0.015
4248.	0.226	8840.	0.018
4250.	0.231	8842.	0.014
4252.	0.228	8844.	0.013
4254.	0.227	8846.	0.018
4256.	0.228	8848.	0.01
4258.	0.23	8850.	0.016
4260.	0.225	8852.	0.013
4262.	0.228	8854.	0.014
4264.	0.228	8856.	0.013
4266.	0.226	8858.	0.014
4268.	0.23	8860.	0.016
4270.	0.227	8862.	0.014
4272.	0.226	8864.	0.013
4274.	0.227	8866.	0.015
4276.	0.229	8868.	0.017
4278.	0.226	8870.	0.014
4280.	0.227	8872.	0.016
4282.	0.229	8874.	0.011
4284.	0.223	8876.	0.013

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4286.	0.224	8878.	0.013
4288.	0.223	8880.	0.016
4290.	0.226	8882.	0.011
4292.	0.224	8884.	0.015
4294.	0.223	8886.	0.017
4296.	0.223	8888.	0.012
4298.	0.222	8890.	-0.004
4300.	0.227	8892.	0.013
4302.	0.224	8894.	0.022
4304.	0.222	8896.	0.052
4306.	0.228	8898.	0.038
4308.	0.223	8900.	0.012
4310.	0.228	8902.	0.007
4312.	0.22	8904.	0.002
4314.	0.225	8906.	0.008
4316.	0.223	8908.	0.005
4318.	0.226	8910.	0.01
4320.	0.222	8912.	0.004
4322.	0.222	8914.	0.007
4324.	0.223	8916.	0.007
4326.	0.223	8918.	0.009
4328.	0.223	8920.	0.007
4330.	0.223	8922.	0.008
4332.	0.223	8924.	0.006
4334.	0.222	8926.	0.006
4336.	0.22	8928.	0.01
4338.	0.216	8930.	0.006
4340.	0.224	8932.	0.007
4342.	0.218	8934.	0.009
4344.	0.224	8936.	0.008
4346.	0.22	8938.	0.006
4348.	0.219	8940.	0.006
4350.	0.22	8942.	0.009
4352.	0.218	8944.	0.005
4354.	0.221	8946.	0.008
4356.	0.22	8948.	0.007
4358.	0.22	8950.	0.007
4360.	0.218	8952.	0.008
4362.	0.22	8954.	0.009
4364.	0.218	8956.	-0.006
4366.	0.22	8958.	0.004
4368.	0.217	8960.	0.006
4370.	0.22	8962.	0.006
4372.	0.219	8964.	0.005
4374.	0.22	8966.	0.007
4376.	0.219	8968.	0.009
4378.	0.22	8970.	0.003
4380.	0.215	8972.	0.002
4382.	0.22	8974.	0.007
4384.	0.216	8976.	0.006
4386.	0.215	8978.	0.009
4388.	0.216	8980.	0.007
4390.	0.217	8982.	0.005
4392.	0.215	8984.	0.006
4394.	0.216	8986.	0.006
4396.	0.219	8988.	0.007
4398.	0.216	8990.	0.006
4400.	0.216	8992.	0.007
4402.	0.214	8994.	0.003
4404.	0.211	8996.	-0.007
4406.	0.216	8998.	-0.002
4408.	0.217	9000.	0.005
4410.	0.216	9002.	0.004
4412.	0.215	9004.	0.004
4414.	0.215	9006.	0.011
4416.	0.213	9008.	0.004

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4418.	0.213	9010.	0.004
4420.	0.214	9012.	0.002
4422.	0.213	9014.	0.004
4424.	0.216	9016.	0.006
4426.	0.214	9018.	0.005
4428.	0.211	9020.	0.001
4430.	0.213	9022.	0.005
4432.	0.213	9024.	0.005
4434.	0.213	9026.	0.003
4436.	0.211	9028.	0.007
4438.	0.212	9030.	0.003
4440.	0.214	9032.	0.005
4442.	0.213	9034.	0.004
4444.	0.214	9036.	0.
4446.	0.211	9038.	0.007
4448.	0.211	9040.	0.
4450.	0.211	9042.	0.007
4452.	0.213	9044.	0.01
4454.	0.21	9046.	0.007
4456.	0.211	9048.	0.007
4458.	0.214	9050.	0.005
4460.	0.214	9052.	0.006
4462.	0.211	9054.	0.003
4464.	0.212	9056.	0.004
4466.	0.213	9058.	0.004
4468.	0.21	9060.	0.008
4470.	0.21	9062.	0.005
4472.	0.21	9064.	0.007
4474.	0.209	9066.	0.001
4476.	0.211	9068.	0.002
4478.	0.212	9070.	0.011
4480.	0.207	9072.	0.002
4482.	0.209	9074.	-0.006
4484.	0.208	9076.	0.004
4486.	0.209	9078.	0.004
4488.	0.205	9080.	0.002
4490.	0.211	9082.	0.006
4492.	0.206	9084.	0.005
4494.	0.207	9086.	0.004
4496.	0.207	9088.	-0.001
4498.	0.208	9090.	0.005
4500.	0.204	9092.	0.003
4502.	0.206	9094.	0.01
4504.	0.209	9096.	0.006
4506.	0.205	9098.	0.009
4508.	0.206	9100.	0.005
4510.	0.206	9102.	0.004
4512.	0.21	9104.	0.004
4514.	0.208	9106.	0.003
4516.	0.207	9108.	0.002
4518.	0.206	9110.	0.005
4520.	0.209	9112.	0.003
4522.	0.206	9114.	0.001
4524.	0.206	9116.	0.001
4526.	0.208	9118.	0.003
4528.	0.199	9120.	0.002
4530.	0.202	9122.	0.003
4532.	0.203	9124.	0.005
4534.	0.208	9126.	0.003
4536.	0.205	9128.	0.003
4538.	0.203	9130.	0.004
4540.	0.205	9132.	0.003
4542.	0.201	9134.	0.007
4544.	0.204	9136.	0.006
4546.	0.204	9138.	0.003
4548.	0.206	9140.	0.003

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4550.	0.204	9142.	0.003
4552.	0.202	9144.	0.005
4554.	0.202	9146.	0.004
4556.	0.202	9148.	0.004
4558.	0.203	9150.	0.002
4560.	0.203	9152.	0.003
4562.	0.203	9154.	0.002
4564.	0.2	9156.	0.004
4566.	0.2	9158.	0.003
4568.	0.203	9160.	0.001
4570.	0.203	9162.	0.001
4572.	0.202	9164.	0.001
4574.	0.201	9166.	0.001
4576.	0.2	9168.	0.005
4578.	0.2	9170.	0.001
4580.	0.202	9172.	0.001
4582.	0.202	9174.	0.003
4584.	0.2	9176.	0.001
4586.	0.198	9178.	0.001
4588.	0.202	9180.	0.002
4590.	0.2	9182.	0.006

SOLUTION

Slug Test
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
ln(Re/rw): 2.459

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	1.209E-5	cm/sec
y0	1.135	ft

T = K*b = 0.002911 cm²/sec

Aquifer Slug Test Data

Well DW-2

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:24:24

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-2

AQUIFER DATA

Saturated Thickness: 70.99 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-2

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.518 ft
Static Water Column Height: 70.99 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 1. ft
Screen Length: 30. ft
Total Well Penetration Depth: 70.99 ft

No. of Observations: 7393

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.199	7394.	0.3133
2.	1.132	7396.	0.3132
4.	1.511	7398.	0.3133
6.	1.491	7400.	0.3137
8.	1.489	7402.	0.3163
10.	1.453	7404.	0.3114
12.	1.459	7406.	0.3119
14.	1.449	7408.	0.3141
16.	1.451	7410.	0.313
18.	1.445	7412.	0.312
20.	1.447	7414.	0.3116
22.	1.44	7416.	0.3119
24.	1.432	7418.	0.3132
26.	1.435	7420.	0.3134
28.	1.437	7422.	0.3153
30.	1.518	7424.	0.3126
32.	1.41	7426.	0.3115
34.	1.412	7428.	0.3101
36.	1.416	7430.	0.3116
38.	1.413	7432.	0.3106
40.	1.413	7434.	0.3099
42.	1.409	7436.	0.314
44.	1.414	7438.	0.3088
46.	1.404	7440.	0.3094
48.	1.412	7442.	0.3118
50.	1.402	7444.	0.3097
52.	1.402	7446.	0.3111
54.	1.402	7448.	0.3081
56.	1.398	7450.	0.3093
58.	1.396	7452.	0.3108
60.	1.399	7454.	0.3094

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	1.394	7456.	0.3084
64.	1.395	7458.	0.3097
66.	1.396	7460.	0.3065
68.	1.396	7462.	0.312
70.	1.393	7464.	0.3091
72.	1.392	7466.	0.3079
74.	1.395	7468.	0.3073
76.	1.394	7470.	0.309
78.	1.38	7472.	0.3105
80.	1.387	7474.	0.3119
82.	1.386	7476.	0.3073
84.	1.391	7478.	0.3088
86.	1.39	7480.	0.3065
88.	1.388	7482.	0.3103
90.	1.382	7484.	0.3091
92.	1.384	7486.	0.3069
94.	1.38	7488.	0.3087
96.	1.377	7490.	0.3098
98.	1.384	7492.	0.3075
100.	1.379	7494.	0.3086
102.	1.378	7496.	0.3087
104.	1.382	7498.	0.3064
106.	1.374	7500.	0.3065
108.	1.376	7502.	0.3055
110.	1.374	7504.	0.3091
112.	1.381	7506.	0.3055
114.	1.378	7508.	0.3085
116.	1.377	7510.	0.3042
118.	1.361	7512.	0.3063
120.	1.372	7514.	0.309
122.	1.368	7516.	0.3061
124.	1.373	7518.	0.3066
126.	1.363	7520.	0.3078
128.	1.368	7522.	0.3075
130.	1.366	7524.	0.307
132.	1.364	7526.	0.3053
134.	1.37	7528.	0.3064
136.	1.36	7530.	0.3057
138.	1.366	7532.	0.3055
140.	1.364	7534.	0.3049
142.	1.361	7536.	0.3042
144.	1.359	7538.	0.3056
146.	1.358	7540.	0.3049
148.	1.358	7542.	0.3069
150.	1.355	7544.	0.3028
152.	1.359	7546.	0.303
154.	1.36	7548.	0.3032
156.	1.354	7550.	0.3049
158.	1.351	7552.	0.3049
160.	1.352	7554.	0.3028
162.	1.357	7556.	0.3049
164.	1.357	7558.	0.3029
166.	1.357	7560.	0.3014
168.	1.354	7562.	0.3042
170.	1.357	7564.	0.3035
172.	1.353	7566.	0.3039
174.	1.354	7568.	0.3047
176.	1.352	7570.	0.3011
178.	1.343	7572.	0.3035
180.	1.344	7574.	0.3034
182.	1.342	7576.	0.3016
184.	1.35	7578.	0.302
186.	1.35	7580.	0.3022
188.	1.349	7582.	0.3022
190.	1.348	7584.	0.3035
192.	1.345	7586.	0.3026

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	1.34	7588.	0.3023
196.	1.339	7590.	0.3005
198.	1.34	7592.	0.3004
200.	1.344	7594.	0.3024
202.	1.339	7596.	0.3019
204.	1.337	7598.	0.2996
206.	1.333	7600.	0.2976
208.	1.336	7602.	0.3043
210.	1.335	7604.	0.3004
212.	1.338	7606.	0.3004
214.	1.339	7608.	0.2988
216.	1.339	7610.	0.299
218.	1.34	7612.	0.2988
220.	1.336	7614.	0.2989
222.	1.33	7616.	0.2977
224.	1.336	7618.	0.3003
226.	1.337	7620.	0.3004
228.	1.335	7622.	0.2988
230.	1.337	7624.	0.3004
232.	1.328	7626.	0.2956
234.	1.33	7628.	0.2959
236.	1.331	7630.	0.3018
238.	1.325	7632.	0.2989
240.	1.332	7634.	0.2934
242.	1.333	7636.	0.3019
244.	1.323	7638.	0.2973
246.	1.324	7640.	0.2953
248.	1.324	7642.	0.3002
250.	1.322	7644.	0.3004
252.	1.328	7646.	0.2978
254.	1.317	7648.	0.2983
256.	1.329	7650.	0.2936
258.	1.32	7652.	0.2981
260.	1.325	7654.	0.2976
262.	1.324	7656.	0.2922
264.	1.324	7658.	0.2975
266.	1.317	7660.	0.2942
268.	1.317	7662.	0.2941
270.	1.316	7664.	0.2923
272.	1.317	7666.	0.2982
274.	1.316	7668.	0.2969
276.	1.317	7670.	0.2943
278.	1.32	7672.	0.298
280.	1.32	7674.	0.2977
282.	1.319	7676.	0.2951
284.	1.319	7678.	0.297
286.	1.314	7680.	0.2936
288.	1.31	7682.	0.2902
290.	1.31	7684.	0.2977
292.	1.315	7686.	0.2905
294.	1.304	7688.	0.2949
296.	1.308	7690.	0.2925
298.	1.312	7692.	0.2906
300.	1.313	7694.	0.2956
302.	1.312	7696.	0.2887
304.	1.313	7698.	0.2924
306.	1.314	7700.	0.2971
308.	1.306	7702.	0.2906
310.	1.303	7704.	0.2971
312.	1.302	7706.	0.2953
314.	1.307	7708.	0.295
316.	1.307	7710.	0.2924
318.	1.3	7712.	0.2889
320.	1.306	7714.	0.2883
322.	1.306	7716.	0.2958
324.	1.299	7718.	0.2964

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	1.304	7720.	0.295
328.	1.304	7722.	0.2894
330.	1.298	7724.	0.2909
332.	1.296	7726.	0.2905
334.	1.296	7728.	0.2925
336.	1.296	7730.	0.2931
338.	1.296	7732.	0.2924
340.	1.3	7734.	0.2873
342.	1.3	7736.	0.2943
344.	1.298	7738.	0.2905
346.	1.299	7740.	0.2876
348.	1.296	7742.	0.2947
350.	1.291	7744.	0.2944
352.	1.297	7746.	0.2938
354.	1.295	7748.	0.2927
356.	1.295	7750.	0.2964
358.	1.289	7752.	0.2876
360.	1.295	7754.	0.2905
362.	1.293	7756.	0.2936
364.	1.295	7758.	0.2929
366.	1.293	7760.	0.2869
368.	1.29	7762.	0.2859
370.	1.294	7764.	0.2863
372.	1.291	7766.	0.2824
374.	1.283	7768.	0.2913
376.	1.29	7770.	0.2883
378.	1.29	7772.	0.2943
380.	1.29	7774.	0.2925
382.	1.285	7776.	0.2908
384.	1.287	7778.	0.2889
386.	1.285	7780.	0.2867
388.	1.284	7782.	0.2837
390.	1.281	7784.	0.2897
392.	1.284	7786.	0.2933
394.	1.284	7788.	0.2919
396.	1.281	7790.	0.2867
398.	1.281	7792.	0.2874
400.	1.281	7794.	0.2886
402.	1.278	7796.	0.2864
404.	1.28	7798.	0.2909
406.	1.28	7800.	0.2871
408.	1.28	7802.	0.2872
410.	1.271	7804.	0.2846
412.	1.269	7806.	0.2847
414.	1.276	7808.	0.2825
416.	1.276	7810.	0.2838
418.	1.269	7812.	0.2848
420.	1.277	7814.	0.2821
422.	1.275	7816.	0.2822
424.	1.274	7818.	0.2876
426.	1.277	7820.	0.2945
428.	1.272	7822.	0.2895
430.	1.273	7824.	0.2892
432.	1.273	7826.	0.2865
434.	1.272	7828.	0.2832
436.	1.271	7830.	0.2839
438.	1.272	7832.	0.2829
440.	1.268	7834.	0.2882
442.	1.272	7836.	0.2893
444.	1.267	7838.	0.2884
446.	1.269	7840.	0.289
448.	1.265	7842.	0.2824
450.	1.269	7844.	0.2812
452.	1.265	7846.	0.2882
454.	1.265	7848.	0.2872
456.	1.263	7850.	0.2916

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
458.	1.264	7852.	0.2884
460.	1.265	7854.	0.2845
462.	1.264	7856.	0.2803
464.	1.263	7858.	0.2827
466.	1.263	7860.	0.2829
468.	1.261	7862.	0.2834
470.	1.26	7864.	0.2807
472.	1.26	7866.	0.2891
474.	1.26	7868.	0.2853
476.	1.263	7870.	0.2845
478.	1.261	7872.	0.2858
480.	1.258	7874.	0.2863
482.	1.257	7876.	0.286
484.	1.258	7878.	0.2859
486.	1.251	7880.	0.2818
488.	1.256	7882.	0.2827
490.	1.255	7884.	0.2833
492.	1.253	7886.	0.284
494.	1.255	7888.	0.2834
496.	1.254	7890.	0.2852
498.	1.253	7892.	0.2844
500.	1.254	7894.	0.2835
502.	1.248	7896.	0.2827
504.	1.252	7898.	0.2848
506.	1.246	7900.	0.2838
508.	1.251	7902.	0.2821
510.	1.249	7904.	0.2816
512.	1.245	7906.	0.2808
514.	1.249	7908.	0.2833
516.	1.25	7910.	0.2809
518.	1.248	7912.	0.2803
520.	1.246	7914.	0.2814
522.	1.244	7916.	0.2778
524.	1.247	7918.	0.2812
526.	1.247	7920.	0.2806
528.	1.247	7922.	0.2823
530.	1.245	7924.	0.2806
532.	1.247	7926.	0.2797
534.	1.242	7928.	0.2794
536.	1.243	7930.	0.2788
538.	1.243	7932.	0.2808
540.	1.244	7934.	0.2784
542.	1.241	7936.	0.2762
544.	1.242	7938.	0.2757
546.	1.24	7940.	0.2744
548.	1.243	7942.	0.2801
550.	1.239	7944.	0.2799
552.	1.233	7946.	0.2802
554.	1.239	7948.	0.2803
556.	1.237	7950.	0.2781
558.	1.238	7952.	0.2786
560.	1.238	7954.	0.28
562.	1.235	7956.	0.2796
564.	1.24	7958.	0.277
566.	1.235	7960.	0.2687
568.	1.235	7962.	0.2761
570.	1.235	7964.	0.2785
572.	1.232	7966.	0.277
574.	1.235	7968.	0.2793
576.	1.233	7970.	0.2758
578.	1.229	7972.	0.2769
580.	1.23	7974.	0.2759
582.	1.233	7976.	0.2782
584.	1.23	7978.	0.2742
586.	1.229	7980.	0.2733
588.	1.222	7982.	0.2751

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
590.	1.229	7984.	0.2719
592.	1.223	7986.	0.241
594.	1.226	7988.	0.2389
596.	1.228	7990.	0.2371
598.	1.227	7992.	0.2358
600.	1.226	7994.	0.2376
602.	1.219	7996.	0.2362
604.	1.224	7998.	0.2375
606.	1.226	8000.	0.2381
608.	1.222	8002.	0.2379
610.	1.223	8004.	0.2367
612.	1.217	8006.	0.2399
614.	1.223	8008.	0.2392
616.	1.223	8010.	0.2353
618.	1.225	8012.	0.2378
620.	1.22	8014.	0.2378
622.	1.217	8016.	0.2362
624.	1.22	8018.	0.2347
626.	1.22	8020.	0.2354
628.	1.219	8022.	0.2351
630.	1.218	8024.	0.2373
632.	1.218	8026.	0.2365
634.	1.217	8028.	0.2361
636.	1.218	8030.	0.2334
638.	1.215	8032.	0.2332
640.	1.218	8034.	0.2346
642.	1.216	8036.	0.2353
644.	1.208	8038.	0.2351
646.	1.215	8040.	0.2361
648.	1.214	8042.	0.2366
650.	1.213	8044.	0.2337
652.	1.212	8046.	0.2366
654.	1.213	8048.	0.2342
656.	1.21	8050.	0.238
658.	1.212	8052.	0.2334
660.	1.212	8054.	0.2324
662.	1.216	8056.	0.2372
664.	1.21	8058.	0.2353
666.	1.208	8060.	0.2326
668.	1.212	8062.	0.2348
670.	1.209	8064.	0.2339
672.	1.21	8066.	0.2339
674.	1.204	8068.	0.2363
676.	1.207	8070.	0.2315
678.	1.208	8072.	0.234
680.	1.204	8074.	0.2352
682.	1.207	8076.	0.2358
684.	1.205	8078.	0.2326
686.	1.204	8080.	0.2349
688.	1.201	8082.	0.2328
690.	1.204	8084.	0.2319
692.	1.203	8086.	0.2328
694.	1.194	8088.	0.2313
696.	1.202	8090.	0.2323
698.	1.201	8092.	0.232
700.	1.199	8094.	0.2304
702.	1.198	8096.	0.2328
704.	1.199	8098.	0.2316
706.	1.199	8100.	0.2317
708.	1.198	8102.	0.2309
710.	1.199	8104.	0.2298
712.	1.2	8106.	0.2305
714.	1.197	8108.	0.2325
716.	1.197	8110.	0.2316
718.	1.194	8112.	0.2311
720.	1.195	8114.	0.229

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
722.	1.194	8116.	0.2286
724.	1.195	8118.	0.2307
726.	1.196	8120.	0.23
728.	1.195	8122.	0.2302
730.	1.192	8124.	0.2306
732.	1.193	8126.	0.2312
734.	1.19	8128.	0.2308
736.	1.191	8130.	0.227
738.	1.189	8132.	0.2286
740.	1.19	8134.	0.2298
742.	1.192	8136.	0.2281
744.	1.19	8138.	0.2277
746.	1.189	8140.	0.232
748.	1.189	8142.	0.2285
750.	1.186	8144.	0.2288
752.	1.188	8146.	0.2278
754.	1.189	8148.	0.2272
756.	1.186	8150.	0.232
758.	1.186	8152.	0.2291
760.	1.185	8154.	0.2264
762.	1.184	8156.	0.2256
764.	1.186	8158.	0.2292
766.	1.186	8160.	0.2277
768.	1.184	8162.	0.2286
770.	1.176	8164.	0.2278
772.	1.177	8166.	0.2273
774.	1.183	8168.	0.2238
776.	1.182	8170.	0.2265
778.	1.182	8172.	0.2292
780.	1.179	8174.	0.2293
782.	1.18	8176.	0.2273
784.	1.178	8178.	0.227
786.	1.181	8180.	0.2253
788.	1.172	8182.	0.227
790.	1.182	8184.	0.2249
792.	1.178	8186.	0.2254
794.	1.177	8188.	0.2276
796.	1.175	8190.	0.225
798.	1.179	8192.	0.2263
800.	1.177	8194.	0.2262
802.	1.176	8196.	0.2278
804.	1.167	8198.	0.2243
806.	1.167	8200.	0.2248
808.	1.174	8202.	0.2265
810.	1.174	8204.	0.2254
812.	1.175	8206.	0.2255
814.	1.167	8208.	0.227
816.	1.173	8210.	0.2251
818.	1.171	8212.	0.2239
820.	1.171	8214.	0.2248
822.	1.169	8216.	0.2236
824.	1.171	8218.	0.2255
826.	1.163	8220.	0.2236
828.	1.17	8222.	0.226
830.	1.167	8224.	0.2248
832.	1.17	8226.	0.2236
834.	1.16	8228.	0.2245
836.	1.162	8230.	0.2233
838.	1.167	8232.	0.224
840.	1.167	8234.	0.2247
842.	1.168	8236.	0.2227
844.	1.166	8238.	0.2246
846.	1.161	8240.	0.2248
848.	1.16	8242.	0.2244
850.	1.165	8244.	0.2261
852.	1.157	8246.	0.2203

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
854.	1.165	8248.	0.2228
856.	1.162	8250.	0.2236
858.	1.163	8252.	0.2215
860.	1.162	8254.	0.2229
862.	1.155	8256.	0.2214
864.	1.16	8258.	0.2207
866.	1.16	8260.	0.2228
868.	1.158	8262.	0.2229
870.	1.159	8264.	0.2208
872.	1.159	8266.	0.2233
874.	1.154	8268.	0.2229
876.	1.157	8270.	0.2234
878.	1.158	8272.	0.224
880.	1.158	8274.	0.2219
882.	1.155	8276.	0.2226
884.	1.154	8278.	0.2212
886.	1.156	8280.	0.2217
888.	1.152	8282.	0.2216
890.	1.146	8284.	0.2199
892.	1.146	8286.	0.2219
894.	1.153	8288.	0.2193
896.	1.151	8290.	0.2215
898.	1.147	8292.	0.2193
900.	1.153	8294.	0.2206
902.	1.149	8296.	0.2197
904.	1.153	8298.	0.2224
906.	1.154	8300.	0.2227
908.	1.15	8302.	0.2209
910.	1.15	8304.	0.22
912.	1.142	8306.	0.2192
914.	1.148	8308.	0.219
916.	1.142	8310.	0.2179
918.	1.148	8312.	0.2212
920.	1.15	8314.	0.2188
922.	1.148	8316.	0.2201
924.	1.146	8318.	0.2177
926.	1.145	8320.	0.2202
928.	1.146	8322.	0.2195
930.	1.145	8324.	0.2196
932.	1.146	8326.	0.2184
934.	1.146	8328.	0.2176
936.	1.136	8330.	0.2167
938.	1.145	8332.	0.2219
940.	1.143	8334.	0.2178
942.	1.14	8336.	0.2196
944.	1.137	8338.	0.2192
946.	1.14	8340.	0.2201
948.	1.141	8342.	0.2181
950.	1.139	8344.	0.2177
952.	1.138	8346.	0.2178
954.	1.141	8348.	0.2167
956.	1.131	8350.	0.217
958.	1.137	8352.	0.2183
960.	1.139	8354.	0.22
962.	1.137	8356.	0.2168
964.	1.138	8358.	0.2175
966.	1.138	8360.	0.215
968.	1.135	8362.	0.2165
970.	1.135	8364.	0.2181
972.	1.137	8366.	0.2159
974.	1.137	8368.	0.2156
976.	1.128	8370.	0.2156
978.	1.134	8372.	0.2149
980.	1.132	8374.	0.2161
982.	1.134	8376.	0.2144
984.	1.132	8378.	0.2155

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
986.	1.133	8380.	0.2171
988.	1.132	8382.	0.2158
990.	1.129	8384.	0.2147
992.	1.125	8386.	0.215
994.	1.13	8388.	0.2158
996.	1.131	8390.	0.2171
998.	1.131	8392.	0.2155
1000.	1.123	8394.	0.2178
1002.	1.127	8396.	0.2155
1004.	1.13	8398.	0.218
1006.	1.121	8400.	0.2152
1008.	1.125	8402.	0.2153
1010.	1.124	8404.	0.2117
1012.	1.128	8406.	0.2137
1014.	1.125	8408.	0.2141
1016.	1.127	8410.	0.2151
1018.	1.124	8412.	0.214
1020.	1.127	8414.	0.2144
1022.	1.125	8416.	0.2145
1024.	1.122	8418.	0.2136
1026.	1.122	8420.	0.2123
1028.	1.121	8422.	0.2126
1030.	1.122	8424.	0.2168
1032.	1.115	8426.	0.212
1034.	1.122	8428.	0.2125
1036.	1.122	8430.	0.212
1038.	1.118	8432.	0.2133
1040.	1.12	8434.	0.2131
1042.	1.117	8436.	0.2107
1044.	1.119	8438.	0.2146
1046.	1.12	8440.	0.2136
1048.	1.117	8442.	0.2155
1050.	1.119	8444.	0.21
1052.	1.119	8446.	0.2133
1054.	1.116	8448.	0.211
1056.	1.115	8450.	0.2134
1058.	1.108	8452.	0.2154
1060.	1.113	8454.	0.211
1062.	1.116	8456.	0.2118
1064.	1.109	8458.	0.2097
1066.	1.114	8460.	0.2103
1068.	1.111	8462.	0.2128
1070.	1.113	8464.	0.211
1072.	1.112	8466.	0.2136
1074.	1.112	8468.	0.2108
1076.	1.105	8470.	0.21
1078.	1.112	8472.	0.21
1080.	1.109	8474.	0.2112
1082.	1.11	8476.	0.2119
1084.	1.111	8478.	0.2103
1086.	1.11	8480.	0.2102
1088.	1.108	8482.	0.2096
1090.	1.11	8484.	0.2066
1092.	1.107	8486.	0.211
1094.	1.108	8488.	0.211
1096.	1.106	8490.	0.2101
1098.	1.107	8492.	0.2091
1100.	1.107	8494.	0.2106
1102.	1.105	8496.	0.2091
1104.	1.103	8498.	0.2086
1106.	1.103	8500.	0.2086
1108.	1.105	8502.	0.2097
1110.	1.099	8504.	0.2089
1112.	1.098	8506.	0.2104
1114.	1.103	8508.	0.2086
1116.	1.102	8510.	0.2095

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1118.	1.101	8512.	0.208
1120.	1.102	8514.	0.2085
1122.	1.103	8516.	0.2075
1124.	1.1	8518.	0.2089
1126.	1.094	8520.	0.2072
1128.	1.097	8522.	0.2108
1130.	1.098	8524.	0.2068
1132.	1.094	8526.	0.2094
1134.	1.096	8528.	0.2068
1136.	1.099	8530.	0.2
1138.	1.098	8532.	0.2106
1140.	1.096	8534.	0.2017
1142.	1.096	8536.	0.2083
1144.	1.096	8538.	0.2095
1146.	1.097	8540.	0.2063
1148.	1.095	8542.	0.2075
1150.	1.095	8544.	0.208
1152.	1.095	8546.	0.2069
1154.	1.095	8548.	0.2071
1156.	1.092	8550.	0.2095
1158.	1.093	8552.	0.2074
1160.	1.093	8554.	0.2063
1162.	1.09	8556.	0.2056
1164.	1.094	8558.	0.2062
1166.	1.09	8560.	0.2081
1168.	1.092	8562.	0.2051
1170.	1.091	8564.	0.2069
1172.	1.09	8566.	0.205
1174.	1.088	8568.	0.2046
1176.	1.09	8570.	0.205
1178.	1.088	8572.	0.2053
1180.	1.087	8574.	0.2062
1182.	1.088	8576.	0.2046
1184.	1.087	8578.	0.2061
1186.	1.085	8580.	0.2062
1188.	1.087	8582.	0.2028
1190.	1.086	8584.	0.2054
1192.	1.086	8586.	0.2074
1194.	1.085	8588.	0.2031
1196.	1.084	8590.	0.2031
1198.	1.085	8592.	0.2031
1200.	1.083	8594.	0.206
1202.	1.083	8596.	0.2037
1204.	1.083	8598.	0.2027
1206.	1.082	8600.	0.2038
1208.	1.084	8602.	0.2069
1210.	1.081	8604.	0.2028
1212.	1.08	8606.	0.2041
1214.	1.081	8608.	0.2047
1216.	1.082	8610.	0.2027
1218.	1.077	8612.	0.2036
1220.	1.08	8614.	0.206
1222.	1.076	8616.	0.2037
1224.	1.078	8618.	0.2042
1226.	1.076	8620.	0.2037
1228.	1.078	8622.	0.2041
1230.	1.076	8624.	0.2026
1232.	1.077	8626.	0.2041
1234.	1.081	8628.	0.2041
1236.	1.074	8630.	0.1957
1238.	1.077	8632.	0.1954
1240.	1.076	8634.	0.2036
1242.	1.075	8636.	0.2027
1244.	1.076	8638.	0.2017
1246.	1.072	8640.	0.2004
1248.	1.073	8642.	0.2

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1250.	1.074	8644.	0.2054
1252.	1.074	8646.	0.2008
1254.	1.072	8648.	0.2036
1256.	1.072	8650.	0.2014
1258.	1.074	8652.	0.2004
1260.	1.072	8654.	0.2013
1262.	1.072	8656.	0.2017
1264.	1.073	8658.	0.1989
1266.	1.067	8660.	0.2025
1268.	1.071	8662.	0.1995
1270.	1.069	8664.	0.1999
1272.	1.068	8666.	0.2
1274.	1.067	8668.	0.202
1276.	1.069	8670.	0.1995
1278.	1.068	8672.	0.1992
1280.	1.064	8674.	0.2002
1282.	1.065	8676.	0.1994
1284.	1.066	8678.	0.2023
1286.	1.071	8680.	0.2025
1288.	1.064	8682.	0.1989
1290.	1.063	8684.	0.198
1292.	1.066	8686.	0.2024
1294.	1.064	8688.	0.1984
1296.	1.067	8690.	0.1991
1298.	1.063	8692.	0.1999
1300.	1.061	8694.	0.2002
1302.	1.06	8696.	0.1984
1304.	1.059	8698.	0.1999
1306.	1.061	8700.	0.2035
1308.	1.06	8702.	0.1978
1310.	1.057	8704.	0.1989
1312.	1.058	8706.	0.198
1314.	1.062	8708.	0.2005
1316.	1.058	8710.	0.1975
1318.	1.059	8712.	0.198
1320.	1.06	8714.	0.1984
1322.	1.056	8716.	0.1985
1324.	1.062	8718.	0.1994
1326.	1.057	8720.	0.1969
1328.	1.058	8722.	0.1975
1330.	1.056	8724.	0.1967
1332.	1.056	8726.	0.1966
1334.	1.052	8728.	0.1981
1336.	1.056	8730.	0.1984
1338.	1.053	8732.	0.1971
1340.	1.053	8734.	0.197
1342.	1.053	8736.	0.1973
1344.	1.052	8738.	0.2015
1346.	1.053	8740.	0.1984
1348.	1.051	8742.	0.2005
1350.	1.051	8744.	0.1961
1352.	1.05	8746.	0.1958
1354.	1.051	8748.	0.1989
1356.	1.051	8750.	0.1956
1358.	1.047	8752.	0.1942
1360.	1.048	8754.	0.1968
1362.	1.048	8756.	0.1964
1364.	1.048	8758.	0.1935
1366.	1.048	8760.	0.1984
1368.	1.047	8762.	0.1935
1370.	1.048	8764.	0.1961
1372.	1.048	8766.	0.1948
1374.	1.047	8768.	0.1946
1376.	1.048	8770.	0.1968
1378.	1.048	8772.	0.1958
1380.	1.043	8774.	0.1937

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1382.	1.037	8776.	0.1963
1384.	1.043	8778.	0.1909
1386.	1.043	8780.	0.1966
1388.	1.043	8782.	0.1948
1390.	1.046	8784.	0.194
1392.	1.043	8786.	0.1935
1394.	1.04	8788.	0.1927
1396.	1.044	8790.	0.1973
1398.	1.04	8792.	0.1947
1400.	1.041	8794.	0.1937
1402.	1.038	8796.	0.1951
1404.	1.04	8798.	0.1925
1406.	1.041	8800.	0.1949
1408.	1.04	8802.	0.1943
1410.	1.038	8804.	0.1935
1412.	1.04	8806.	0.1934
1414.	1.04	8808.	0.1931
1416.	1.04	8810.	0.1922
1418.	1.036	8812.	0.1942
1420.	1.037	8814.	0.1926
1422.	1.038	8816.	0.195
1424.	1.039	8818.	0.1927
1426.	1.035	8820.	0.1928
1428.	1.031	8822.	0.1912
1430.	1.035	8824.	0.1923
1432.	1.034	8826.	0.1947
1434.	1.034	8828.	0.1918
1436.	1.033	8830.	0.1911
1438.	1.035	8832.	0.1923
1440.	1.035	8834.	0.1917
1442.	1.033	8836.	0.1942
1444.	1.033	8838.	0.1917
1446.	1.03	8840.	0.1927
1448.	1.031	8842.	0.1917
1450.	1.032	8844.	0.1928
1452.	1.032	8846.	0.1906
1454.	1.028	8848.	0.1951
1456.	1.03	8850.	0.1903
1458.	1.031	8852.	0.1917
1460.	1.029	8854.	0.1895
1462.	1.029	8856.	0.1908
1464.	1.026	8858.	0.1886
1466.	1.029	8860.	0.1912
1468.	1.027	8862.	0.1895
1470.	1.026	8864.	0.1911
1472.	1.029	8866.	0.193
1474.	1.027	8868.	0.1894
1476.	1.029	8870.	0.1907
1478.	1.026	8872.	0.1913
1480.	1.024	8874.	0.1896
1482.	1.026	8876.	0.19
1484.	1.023	8878.	0.1874
1486.	1.024	8880.	0.189
1488.	1.021	8882.	0.1898
1490.	1.023	8884.	0.1905
1492.	1.021	8886.	0.1896
1494.	1.022	8888.	0.1923
1496.	1.022	8890.	0.1889
1498.	1.02	8892.	0.194
1500.	1.022	8894.	0.1897
1502.	1.014	8896.	0.1874
1504.	1.022	8898.	0.1891
1506.	1.022	8900.	0.1872
1508.	1.02	8902.	0.1883
1510.	1.018	8904.	0.1867
1512.	1.016	8906.	0.1893

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1514.	1.019	8908.	0.1894
1516.	1.019	8910.	0.1896
1518.	1.017	8912.	0.1876
1520.	1.017	8914.	0.1882
1522.	1.019	8916.	0.1861
1524.	1.014	8918.	0.1876
1526.	1.017	8920.	0.1862
1528.	1.015	8922.	0.1869
1530.	1.015	8924.	0.1858
1532.	1.012	8926.	0.1879
1534.	1.011	8928.	0.1865
1536.	1.014	8930.	0.1881
1538.	1.013	8932.	0.1859
1540.	1.012	8934.	0.1874
1542.	1.012	8936.	0.1857
1544.	1.012	8938.	0.1859
1546.	1.012	8940.	0.1873
1548.	1.011	8942.	0.1846
1550.	1.004	8944.	0.1853
1552.	1.008	8946.	0.1795
1554.	1.011	8948.	0.1845
1556.	1.01	8950.	0.1841
1558.	1.008	8952.	0.1837
1560.	1.008	8954.	0.1859
1562.	1.008	8956.	0.1852
1564.	1.012	8958.	0.1862
1566.	1.008	8960.	0.1875
1568.	1.007	8962.	0.1879
1570.	1.006	8964.	0.185
1572.	1.007	8966.	0.1826
1574.	1.007	8968.	0.185
1576.	1.004	8970.	0.1847
1578.	1.004	8972.	0.186
1580.	1.004	8974.	0.1883
1582.	1.004	8976.	0.1815
1584.	1.004	8978.	0.1839
1586.	1.004	8980.	0.1835
1588.	1.004	8982.	0.1822
1590.	0.9998	8984.	0.186
1592.	1.	8986.	0.1856
1594.	1.	8988.	0.1852
1596.	1.003	8990.	0.1837
1598.	1.002	8992.	0.1825
1600.	1.001	8994.	0.1846
1602.	0.9988	8996.	0.1849
1604.	0.9978	8998.	0.1839
1606.	0.9982	9000.	0.1839
1608.	0.9989	9002.	0.1853
1610.	0.9979	9004.	0.1839
1612.	0.9967	9006.	0.1838
1614.	0.9961	9008.	0.1816
1616.	0.9987	9010.	0.1846
1618.	0.9995	9012.	0.1824
1620.	0.9978	9014.	0.1821
1622.	0.9977	9016.	0.1834
1624.	0.9966	9018.	0.1785
1626.	0.996	9020.	0.1813
1628.	0.9931	9022.	0.1815
1630.	0.9868	9024.	0.1831
1632.	0.9874	9026.	0.1823
1634.	0.9943	9028.	0.1804
1636.	0.9932	9030.	0.1806
1638.	0.993	9032.	0.1822
1640.	0.9924	9034.	0.1805
1642.	0.9956	9036.	0.1814
1644.	0.99	9038.	0.1812

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1646.	0.9921	9040.	0.1819
1648.	0.9908	9042.	0.1834
1650.	0.9919	9044.	0.1821
1652.	0.9908	9046.	0.1823
1654.	0.9894	9048.	0.1809
1656.	0.9874	9050.	0.182
1658.	0.9885	9052.	0.1822
1660.	0.9874	9054.	0.1824
1662.	0.9882	9056.	0.1801
1664.	0.9813	9058.	0.1811
1666.	0.9841	9060.	0.182
1668.	0.9831	9062.	0.1806
1670.	0.9811	9064.	0.1791
1672.	0.9892	9066.	0.1829
1674.	0.9849	9068.	0.1803
1676.	0.9859	9070.	0.1797
1678.	0.9791	9072.	0.1802
1680.	0.9806	9074.	0.1794
1682.	0.9879	9076.	0.1799
1684.	0.9864	9078.	0.1805
1686.	0.9841	9080.	0.1796
1688.	0.984	9082.	0.1802
1690.	0.9828	9084.	0.18
1692.	0.9643	9086.	0.178
1694.	0.9832	9088.	0.1778
1696.	0.9793	9090.	0.1794
1698.	0.9846	9092.	0.18
1700.	0.9811	9094.	0.1825
1702.	0.9742	9096.	0.1793
1704.	0.976	9098.	0.1798
1706.	0.9778	9100.	0.1784
1708.	0.9759	9102.	0.1772
1710.	0.9749	9104.	0.1803
1712.	0.9798	9106.	0.1781
1714.	0.9756	9108.	0.181
1716.	0.9787	9110.	0.1764
1718.	0.9738	9112.	0.1761
1720.	0.9815	9114.	0.1692
1722.	0.9729	9116.	0.1798
1724.	0.9756	9118.	0.1787
1726.	0.9761	9120.	0.1793
1728.	0.9739	9122.	0.1779
1730.	0.9741	9124.	0.1764
1732.	0.9799	9126.	0.1772
1734.	0.9739	9128.	0.1793
1736.	0.9715	9130.	0.179
1738.	0.9755	9132.	0.1763
1740.	0.9764	9134.	0.1771
1742.	0.9749	9136.	0.1771
1744.	0.9682	9138.	0.1777
1746.	0.9738	9140.	0.1785
1748.	0.97	9142.	0.1749
1750.	0.9672	9144.	0.1758
1752.	0.9743	9146.	0.1777
1754.	0.971	9148.	0.1764
1756.	0.9695	9150.	0.1755
1758.	0.9759	9152.	0.1768
1760.	0.9649	9154.	0.1762
1762.	0.9701	9156.	0.1753
1764.	0.9644	9158.	0.1762
1766.	0.9657	9160.	0.1784
1768.	0.9624	9162.	0.1731
1770.	0.9632	9164.	0.1739
1772.	0.9614	9166.	0.1741
1774.	0.9667	9168.	0.1751
1776.	0.9606	9170.	0.1751

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1778.	0.9634	9172.	0.1748
1780.	0.9666	9174.	0.1747
1782.	0.9672	9176.	0.1762
1784.	0.966	9178.	0.1725
1786.	0.9599	9180.	0.1746
1788.	0.969	9182.	0.1729
1790.	0.9594	9184.	0.1751
1792.	0.9645	9186.	0.1747
1794.	0.9639	9188.	0.1705
1796.	0.9626	9190.	0.1729
1798.	0.9598	9192.	0.1747
1800.	0.9662	9194.	0.1743
1802.	0.9641	9196.	0.1739
1804.	0.9553	9198.	0.1739
1806.	0.9597	9200.	0.1724
1808.	0.9633	9202.	0.1751
1810.	0.9551	9204.	0.1731
1812.	0.9556	9206.	0.1734
1814.	0.9612	9208.	0.1657
1816.	0.9623	9210.	0.1734
1818.	0.9553	9212.	0.1742
1820.	0.9522	9214.	0.1741
1822.	0.9523	9216.	0.1743
1824.	0.9577	9218.	0.1733
1826.	0.9567	9220.	0.1742
1828.	0.9562	9222.	0.1747
1830.	0.9529	9224.	0.1744
1832.	0.9562	9226.	0.1717
1834.	0.9567	9228.	0.1718
1836.	0.9552	9230.	0.1737
1838.	0.9502	9232.	0.173
1840.	0.9517	9234.	0.1709
1842.	0.9494	9236.	0.174
1844.	0.96	9238.	0.1717
1846.	0.9487	9240.	0.1716
1848.	0.9479	9242.	0.1702
1850.	0.9524	9244.	0.1709
1852.	0.9555	9246.	0.1715
1854.	0.9549	9248.	0.1709
1856.	0.9528	9250.	0.1719
1858.	0.9518	9252.	0.1721
1860.	0.951	9254.	0.1708
1862.	0.9499	9256.	0.1713
1864.	0.9486	9258.	0.1714
1866.	0.9501	9260.	0.1718
1868.	0.9492	9262.	0.1716
1870.	0.947	9264.	0.1742
1872.	0.949	9266.	0.1715
1874.	0.9473	9268.	0.1709
1876.	0.9477	9270.	0.1726
1878.	0.9479	9272.	0.1719
1880.	0.9503	9274.	0.1699
1882.	0.9464	9276.	0.1694
1884.	0.9458	9278.	0.1719
1886.	0.9453	9280.	0.171
1888.	0.946	9282.	0.1708
1890.	0.9453	9284.	0.1729
1892.	0.9475	9286.	0.1701
1894.	0.9451	9288.	0.1726
1896.	0.945	9290.	0.169
1898.	0.9435	9292.	0.1687
1900.	0.9428	9294.	0.1704
1902.	0.942	9296.	0.1684
1904.	0.9424	9298.	0.1681
1906.	0.9416	9300.	0.1673
1908.	0.9429	9302.	0.1708

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1910.	0.9422	9304.	0.1674
1912.	0.9433	9306.	0.1689
1914.	0.9416	9308.	0.1687
1916.	0.9427	9310.	0.169
1918.	0.9435	9312.	0.1701
1920.	0.939	9314.	0.1691
1922.	0.9379	9316.	0.1697
1924.	0.9379	9318.	0.1697
1926.	0.9388	9320.	0.1704
1928.	0.937	9322.	0.1691
1930.	0.9365	9324.	0.1678
1932.	0.9383	9326.	0.1694
1934.	0.9368	9328.	0.1644
1936.	0.9445	9330.	0.1669
1938.	0.9346	9332.	0.1662
1940.	0.9342	9334.	0.1679
1942.	0.9377	9336.	0.1689
1944.	0.9363	9338.	0.1678
1946.	0.9346	9340.	0.1655
1948.	0.936	9342.	0.1677
1950.	0.9351	9344.	0.1686
1952.	0.9346	9346.	0.1644
1954.	0.9357	9348.	0.1694
1956.	0.9319	9350.	0.1681
1958.	0.9309	9352.	0.1674
1960.	0.9314	9354.	0.1669
1962.	0.9309	9356.	0.1678
1964.	0.9314	9358.	0.1651
1966.	0.9316	9360.	0.1683
1968.	0.9315	9362.	0.1653
1970.	0.9301	9364.	0.168
1972.	0.932	9366.	0.1666
1974.	0.9298	9368.	0.1698
1976.	0.9287	9370.	0.1641
1978.	0.9311	9372.	0.1672
1980.	0.9288	9374.	0.1646
1982.	0.9287	9376.	0.1647
1984.	0.9229	9378.	0.1651
1986.	0.9296	9380.	0.1666
1988.	0.9281	9382.	0.1647
1990.	0.9277	9384.	0.165
1992.	0.9247	9386.	0.1673
1994.	0.925	9388.	0.1648
1996.	0.9221	9390.	0.1655
1998.	0.9195	9392.	0.1678
2000.	0.9182	9394.	0.1649
2002.	0.9244	9396.	0.1675
2004.	0.9197	9398.	0.1625
2006.	0.9284	9400.	0.1665
2008.	0.9271	9402.	0.1643
2010.	0.9227	9404.	0.1644
2012.	0.9245	9406.	0.1661
2014.	0.9178	9408.	0.1647
2016.	0.9175	9410.	0.1632
2018.	0.9162	9412.	0.1649
2020.	0.9226	9414.	0.1666
2022.	0.9147	9416.	0.1644
2024.	0.9186	9418.	0.1668
2026.	0.9151	9420.	0.1609
2028.	0.9156	9422.	0.1636
2030.	0.9147	9424.	0.1614
2032.	0.9208	9426.	0.1631
2034.	0.9178	9428.	0.1654
2036.	0.9157	9430.	0.1614
2038.	0.9207	9432.	0.1631
2040.	0.9196	9434.	0.1625

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2042.	0.9123	9436.	0.1639
2044.	0.9152	9438.	0.1636
2046.	0.9118	9440.	0.1629
2048.	0.9173	9442.	0.1671
2050.	0.9196	9444.	0.1644
2052.	0.9155	9446.	0.1616
2054.	0.9126	9448.	0.1612
2056.	0.9105	9450.	0.1639
2058.	0.9184	9452.	0.1684
2060.	0.9155	9454.	0.1633
2062.	0.9139	9456.	0.1606
2064.	0.912	9458.	0.1616
2066.	0.9074	9460.	0.1624
2068.	0.9147	9462.	0.1616
2070.	0.9076	9464.	0.1611
2072.	0.9074	9466.	0.1635
2074.	0.9111	9468.	0.1611
2076.	0.9074	9470.	0.1588
2078.	0.9149	9472.	0.1632
2080.	0.9095	9474.	0.1599
2082.	0.9121	9476.	0.1614
2084.	0.9033	9478.	0.1635
2086.	0.9028	9480.	0.1538
2088.	0.9103	9482.	0.1591
2090.	0.9084	9484.	0.1614
2092.	0.9013	9486.	0.1599
2094.	0.9051	9488.	0.1594
2096.	0.9102	9490.	0.1595
2098.	0.9014	9492.	0.1599
2100.	0.9068	9494.	0.1599
2102.	0.8988	9496.	0.1605
2104.	0.9065	9498.	0.1603
2106.	0.9099	9500.	0.1582
2108.	0.9015	9502.	0.1592
2110.	0.9049	9504.	0.1608
2112.	0.9004	9506.	0.1612
2114.	0.9048	9508.	0.1593
2116.	0.9014	9510.	0.1601
2118.	0.9034	9512.	0.1601
2120.	0.898	9514.	0.1589
2122.	0.9034	9516.	0.159
2124.	0.8985	9518.	0.1574
2126.	0.8988	9520.	0.1595
2128.	0.8965	9522.	0.1585
2130.	0.8967	9524.	0.1573
2132.	0.8945	9526.	0.1573
2134.	0.898	9528.	0.1602
2136.	0.8944	9530.	0.1586
2138.	0.8932	9532.	0.1591
2140.	0.902	9534.	0.1581
2142.	0.902	9536.	0.1597
2144.	0.8981	9538.	0.1588
2146.	0.8957	9540.	0.1585
2148.	0.8952	9542.	0.1609
2150.	0.8999	9544.	0.1594
2152.	0.8915	9546.	0.1584
2154.	0.8902	9548.	0.1588
2156.	0.8931	9550.	0.1579
2158.	0.891	9552.	0.1601
2160.	0.8904	9554.	0.1576
2162.	0.8956	9556.	0.1586
2164.	0.8943	9558.	0.1569
2166.	0.8921	9560.	0.1568
2168.	0.8967	9562.	0.1575
2170.	0.8935	9564.	0.155
2172.	0.8945	9566.	0.1571

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2174.	0.8918	9568.	0.1567
2176.	0.8925	9570.	0.1586
2178.	0.8913	9572.	0.1579
2180.	0.8897	9574.	0.1599
2182.	0.8927	9576.	0.159
2184.	0.8928	9578.	0.1566
2186.	0.8911	9580.	0.1574
2188.	0.8905	9582.	0.1597
2190.	0.8881	9584.	0.1599
2192.	0.8919	9586.	0.1559
2194.	0.8909	9588.	0.1543
2196.	0.8917	9590.	0.1563
2198.	0.889	9592.	0.1596
2200.	0.8878	9594.	0.155
2202.	0.8893	9596.	0.1541
2204.	0.8885	9598.	0.1541
2206.	0.8884	9600.	0.1557
2208.	0.8904	9602.	0.1539
2210.	0.8882	9604.	0.1547
2212.	0.8853	9606.	0.1529
2214.	0.8869	9608.	0.1513
2216.	0.8854	9610.	0.1519
2218.	0.886	9612.	0.1534
2220.	0.8763	9614.	0.1539
2222.	0.8871	9616.	0.1567
2224.	0.8851	9618.	0.1572
2226.	0.8823	9620.	0.1541
2228.	0.8837	9622.	0.157
2230.	0.8849	9624.	0.1541
2232.	0.8832	9626.	0.1531
2234.	0.8851	9628.	0.1548
2236.	0.8865	9630.	0.1514
2238.	0.8823	9632.	0.1541
2240.	0.8825	9634.	0.1535
2242.	0.8825	9636.	0.1543
2244.	0.8809	9638.	0.1522
2246.	0.8836	9640.	0.1554
2248.	0.8807	9642.	0.1529
2250.	0.8822	9644.	0.1539
2252.	0.8831	9646.	0.1513
2254.	0.8805	9648.	0.1547
2256.	0.879	9650.	0.1551
2258.	0.8802	9652.	0.152
2260.	0.8789	9654.	0.1524
2262.	0.8781	9656.	0.1528
2264.	0.8783	9658.	0.1516
2266.	0.8774	9660.	0.152
2268.	0.8758	9662.	0.1526
2270.	0.8765	9664.	0.1538
2272.	0.8785	9666.	0.1513
2274.	0.8763	9668.	0.1527
2276.	0.8753	9670.	0.1533
2278.	0.8786	9672.	0.152
2280.	0.8745	9674.	0.1532
2282.	0.8759	9676.	0.1546
2284.	0.8766	9678.	0.1524
2286.	0.8758	9680.	0.1509
2288.	0.8779	9682.	0.1539
2290.	0.8721	9684.	0.1524
2292.	0.8721	9686.	0.1511
2294.	0.8756	9688.	0.1514
2296.	0.8734	9690.	0.1533
2298.	0.875	9692.	0.1547
2300.	0.8716	9694.	0.1521
2302.	0.8716	9696.	0.1515
2304.	0.8705	9698.	0.1519

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2306.	0.8718	9700.	0.1512
2308.	0.871	9702.	0.153
2310.	0.8713	9704.	0.1508
2312.	0.8726	9706.	0.1494
2314.	0.8695	9708.	0.1511
2316.	0.868	9710.	0.1526
2318.	0.8689	9712.	0.1508
2320.	0.8682	9714.	0.153
2322.	0.866	9716.	0.1524
2324.	0.8673	9718.	0.1524
2326.	0.8667	9720.	0.1494
2328.	0.8667	9722.	0.1509
2330.	0.8666	9724.	0.1518
2332.	0.8671	9726.	0.1488
2334.	0.8667	9728.	0.1484
2336.	0.8668	9730.	0.1538
2338.	0.8644	9732.	0.15
2340.	0.8665	9734.	0.1556
2342.	0.8652	9736.	0.1506
2344.	0.8668	9738.	0.1473
2346.	0.867	9740.	0.1498
2348.	0.8618	9742.	0.1494
2350.	0.8627	9744.	0.1493
2352.	0.8619	9746.	0.1498
2354.	0.866	9748.	0.1484
2356.	0.8629	9750.	0.1485
2358.	0.8605	9752.	0.1489
2360.	0.86	9754.	0.1502
2362.	0.8602	9756.	0.1516
2364.	0.8611	9758.	0.1498
2366.	0.8589	9760.	0.1497
2368.	0.8616	9762.	0.1497
2370.	0.8599	9764.	0.1494
2372.	0.861	9766.	0.1481
2374.	0.8599	9768.	0.148
2376.	0.86	9770.	0.1496
2378.	0.8569	9772.	0.1488
2380.	0.8561	9774.	0.1468
2382.	0.8596	9776.	0.1504
2384.	0.8593	9778.	0.1484
2386.	0.8569	9780.	0.1478
2388.	0.8579	9782.	0.1476
2390.	0.8557	9784.	0.1483
2392.	0.8565	9786.	0.1454
2394.	0.8569	9788.	0.1483
2396.	0.8553	9790.	0.1473
2398.	0.856	9792.	0.1468
2400.	0.8548	9794.	0.1482
2402.	0.855	9796.	0.1476
2404.	0.8556	9798.	0.1459
2406.	0.8543	9800.	0.1478
2408.	0.852	9802.	0.146
2410.	0.8462	9804.	0.1472
2412.	0.8544	9806.	0.1454
2414.	0.8524	9808.	0.1456
2416.	0.8506	9810.	0.1485
2418.	0.8522	9812.	0.1484
2420.	0.8535	9814.	0.1454
2422.	0.8517	9816.	0.1448
2424.	0.8532	9818.	0.1465
2426.	0.8523	9820.	0.1463
2428.	0.8517	9822.	0.1444
2430.	0.849	9824.	0.1475
2432.	0.8477	9826.	0.1463
2434.	0.8511	9828.	0.1456
2436.	0.8472	9830.	0.1461

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2438.	0.849	9832.	0.1457
2440.	0.8501	9834.	0.1467
2442.	0.8471	9836.	0.1436
2444.	0.8489	9838.	0.1448
2446.	0.8502	9840.	0.1432
2448.	0.846	9842.	0.1475
2450.	0.8485	9844.	0.1445
2452.	0.8473	9846.	0.1454
2454.	0.8463	9848.	0.1426
2456.	0.8464	9850.	0.1455
2458.	0.8457	9852.	0.1463
2460.	0.8429	9854.	0.144
2462.	0.8427	9856.	0.1421
2464.	0.8473	9858.	0.1455
2466.	0.8438	9860.	0.1436
2468.	0.8433	9862.	0.1465
2470.	0.8427	9864.	0.1459
2472.	0.8434	9866.	0.1456
2474.	0.8452	9868.	0.1436
2476.	0.8432	9870.	0.1444
2478.	0.8413	9872.	0.1427
2480.	0.8393	9874.	0.1415
2482.	0.8425	9876.	0.1459
2484.	0.8423	9878.	0.1437
2486.	0.8408	9880.	0.1443
2488.	0.8399	9882.	0.1449
2490.	0.841	9884.	0.1446
2492.	0.8391	9886.	0.143
2494.	0.8384	9888.	0.1426
2496.	0.8396	9890.	0.1427
2498.	0.8391	9892.	0.1431
2500.	0.8395	9894.	0.1422
2502.	0.8372	9896.	0.1436
2504.	0.8365	9898.	0.1424
2506.	0.8376	9900.	0.143
2508.	0.8374	9902.	0.1451
2510.	0.8357	9904.	0.1429
2512.	0.8361	9906.	0.1431
2514.	0.8349	9908.	0.1423
2516.	0.8372	9910.	0.1443
2518.	0.8346	9912.	0.1411
2520.	0.8347	9914.	0.1426
2522.	0.835	9916.	0.142
2524.	0.8358	9918.	0.1425
2526.	0.8337	9920.	0.1416
2528.	0.8329	9922.	0.1439
2530.	0.8344	9924.	0.1406
2532.	0.8334	9926.	0.1422
2534.	0.8339	9928.	0.1405
2536.	0.8319	9930.	0.142
2538.	0.8305	9932.	0.1413
2540.	0.8303	9934.	0.1394
2542.	0.8292	9936.	0.1389
2544.	0.8306	9938.	0.141
2546.	0.8301	9940.	0.1405
2548.	0.8311	9942.	0.1405
2550.	0.8288	9944.	0.1433
2552.	0.8292	9946.	0.1396
2554.	0.8269	9948.	0.1411
2556.	0.8297	9950.	0.1418
2558.	0.8298	9952.	0.1421
2560.	0.8274	9954.	0.1394
2562.	0.829	9956.	0.1404
2564.	0.8312	9958.	0.1389
2566.	0.8274	9960.	0.1423
2568.	0.8329	9962.	0.1409

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2570.	0.8269	9964.	0.1425
2572.	0.8249	9966.	0.1429
2574.	0.8266	9968.	0.1407
2576.	0.8265	9970.	0.1409
2578.	0.8269	9972.	0.1399
2580.	0.8259	9974.	0.1393
2582.	0.8301	9976.	0.1412
2584.	0.824	9978.	0.1404
2586.	0.8265	9980.	0.1395
2588.	0.8242	9982.	0.1399
2590.	0.8249	9984.	0.1399
2592.	0.8234	9986.	0.1387
2594.	0.8208	9988.	0.1399
2596.	0.8225	9990.	0.1377
2598.	0.8213	9992.	0.1394
2600.	0.8229	9994.	0.1383
2602.	0.8232	9996.	0.1385
2604.	0.8201	9998.	0.1402
2606.	0.822	10000.	0.1392
2608.	0.8208	1.0E+4	0.1392
2610.	0.8208	1.0E+4	0.1377
2612.	0.8191	1.001E+4	0.1368
2614.	0.82	1.001E+4	0.1403
2616.	0.8179	1.001E+4	0.1382
2618.	0.8182	1.001E+4	0.1396
2620.	0.8201	1.001E+4	0.1393
2622.	0.8184	1.002E+4	0.1381
2624.	0.8179	1.002E+4	0.1364
2626.	0.8178	1.002E+4	0.1363
2628.	0.8178	1.002E+4	0.1363
2630.	0.8157	1.002E+4	0.1382
2632.	0.8153	1.003E+4	0.1352
2634.	0.8166	1.003E+4	0.137
2636.	0.8158	1.003E+4	0.1365
2638.	0.8154	1.003E+4	0.1363
2640.	0.817	1.003E+4	0.1374
2642.	0.8161	1.004E+4	0.1377
2644.	0.8147	1.004E+4	0.1362
2646.	0.8151	1.004E+4	0.1364
2648.	0.8156	1.004E+4	0.1376
2650.	0.8141	1.004E+4	0.1392
2652.	0.8136	1.005E+4	0.1357
2654.	0.8137	1.005E+4	0.1394
2656.	0.8127	1.005E+4	0.1413
2658.	0.8121	1.005E+4	0.1344
2660.	0.8136	1.005E+4	0.1369
2662.	0.8129	1.006E+4	0.1378
2664.	0.8123	1.006E+4	0.1356
2666.	0.8086	1.006E+4	0.1374
2668.	0.8108	1.006E+4	0.1346
2670.	0.8087	1.006E+4	0.1348
2672.	0.8104	1.007E+4	0.1341
2674.	0.8098	1.007E+4	0.1354
2676.	0.8095	1.007E+4	0.1339
2678.	0.8111	1.007E+4	0.1368
2680.	0.8087	1.007E+4	0.1373
2682.	0.8143	1.008E+4	0.1351
2684.	0.8077	1.008E+4	0.1351
2686.	0.8078	1.008E+4	0.1351
2688.	0.8068	1.008E+4	0.1352
2690.	0.8105	1.008E+4	0.1337
2692.	0.8088	1.009E+4	0.135
2694.	0.8097	1.009E+4	0.1352
2696.	0.807	1.009E+4	0.1339
2698.	0.8072	1.009E+4	0.1359
2700.	0.8067	1.009E+4	0.1349

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2702.	0.8041	1.01E+4	0.133
2704.	0.8036	1.01E+4	0.1346
2706.	0.8038	1.01E+4	0.1351
2708.	0.8047	1.01E+4	0.1317
2710.	0.8041	1.01E+4	0.1341
2712.	0.8043	1.011E+4	0.1351
2714.	0.807	1.011E+4	0.1351
2716.	0.8055	1.011E+4	0.1327
2718.	0.8031	1.011E+4	0.1342
2720.	0.8008	1.011E+4	0.1319
2722.	0.8047	1.012E+4	0.1355
2724.	0.8019	1.012E+4	0.1348
2726.	0.8045	1.012E+4	0.1332
2728.	0.8012	1.012E+4	0.1338
2730.	0.8033	1.012E+4	0.1329
2732.	0.801	1.013E+4	0.1306
2734.	0.8	1.013E+4	0.1359
2736.	0.8031	1.013E+4	0.1335
2738.	0.7998	1.013E+4	0.1328
2740.	0.7989	1.013E+4	0.1338
2742.	0.7987	1.014E+4	0.1351
2744.	0.8018	1.014E+4	0.1343
2746.	0.7997	1.014E+4	0.1336
2748.	0.7977	1.014E+4	0.133
2750.	0.7986	1.014E+4	0.133
2752.	0.7979	1.015E+4	0.1323
2754.	0.7999	1.015E+4	0.1333
2756.	0.7957	1.015E+4	0.1319
2758.	0.7964	1.015E+4	0.1339
2760.	0.7968	1.015E+4	0.1311
2762.	0.7959	1.016E+4	0.1303
2764.	0.7963	1.016E+4	0.1304
2766.	0.7944	1.016E+4	0.1317
2768.	0.7955	1.016E+4	0.1325
2770.	0.7949	1.016E+4	0.1322
2772.	0.7953	1.017E+4	0.1302
2774.	0.7957	1.017E+4	0.1306
2776.	0.794	1.017E+4	0.1303
2778.	0.7954	1.017E+4	0.1321
2780.	0.7937	1.017E+4	0.1297
2782.	0.7924	1.018E+4	0.1306
2784.	0.7948	1.018E+4	0.132
2786.	0.7936	1.018E+4	0.1307
2788.	0.7904	1.018E+4	0.1328
2790.	0.7908	1.018E+4	0.1308
2792.	0.7898	1.019E+4	0.131
2794.	0.793	1.019E+4	0.1297
2796.	0.79	1.019E+4	0.1311
2798.	0.7912	1.019E+4	0.1321
2800.	0.7905	1.019E+4	0.1321
2802.	0.7898	1.02E+4	0.133
2804.	0.7884	1.02E+4	0.1295
2806.	0.787	1.02E+4	0.1324
2808.	0.7903	1.02E+4	0.1313
2810.	0.7886	1.02E+4	0.1308
2812.	0.7868	1.021E+4	0.1288
2814.	0.7915	1.021E+4	0.1314
2816.	0.7876	1.021E+4	0.1304
2818.	0.7899	1.021E+4	0.1297
2820.	0.7887	1.021E+4	0.1294
2822.	0.7864	1.022E+4	0.1293
2824.	0.7852	1.022E+4	0.131
2826.	0.7852	1.022E+4	0.13
2828.	0.7873	1.022E+4	0.1303
2830.	0.7851	1.022E+4	0.1281
2832.	0.7841	1.023E+4	0.13

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2834.	0.7855	1.023E+4	0.1302
2836.	0.7856	1.023E+4	0.1289
2838.	0.7833	1.023E+4	0.1276
2840.	0.7839	1.023E+4	0.1304
2842.	0.7821	1.024E+4	0.1286
2844.	0.7841	1.024E+4	0.1292
2846.	0.7819	1.024E+4	0.1297
2848.	0.7829	1.024E+4	0.1293
2850.	0.7826	1.024E+4	0.1308
2852.	0.7824	1.025E+4	0.1305
2854.	0.7849	1.025E+4	0.1292
2856.	0.7815	1.025E+4	0.1304
2858.	0.7814	1.025E+4	0.1299
2860.	0.7809	1.025E+4	0.1299
2862.	0.7826	1.026E+4	0.1312
2864.	0.7807	1.026E+4	0.1263
2866.	0.7815	1.026E+4	0.1289
2868.	0.7801	1.026E+4	0.1287
2870.	0.7802	1.026E+4	0.1287
2872.	0.7773	1.027E+4	0.1301
2874.	0.7816	1.027E+4	0.1257
2876.	0.7766	1.027E+4	0.1283
2878.	0.7798	1.027E+4	0.1274
2880.	0.7773	1.027E+4	0.124
2882.	0.7777	1.028E+4	0.1262
2884.	0.7787	1.028E+4	0.1275
2886.	0.7768	1.028E+4	0.1275
2888.	0.7798	1.028E+4	0.128
2890.	0.7781	1.028E+4	0.1257
2892.	0.78	1.029E+4	0.1275
2894.	0.7762	1.029E+4	0.1284
2896.	0.7759	1.029E+4	0.1251
2898.	0.7743	1.029E+4	0.1271
2900.	0.7769	1.029E+4	0.1267
2902.	0.7747	1.03E+4	0.1293
2904.	0.7736	1.03E+4	0.1298
2906.	0.7736	1.03E+4	0.129
2908.	0.7741	1.03E+4	0.127
2910.	0.7761	1.03E+4	0.1273
2912.	0.7679	1.031E+4	0.1278
2914.	0.7731	1.031E+4	0.1264
2916.	0.7735	1.031E+4	0.1294
2918.	0.7735	1.031E+4	0.1254
2920.	0.7679	1.031E+4	0.1241
2922.	0.7689	1.032E+4	0.1246
2924.	0.7658	1.032E+4	0.1272
2926.	0.766	1.032E+4	0.1246
2928.	0.7679	1.032E+4	0.1263
2930.	0.7701	1.032E+4	0.1253
2932.	0.7686	1.033E+4	0.1245
2934.	0.771	1.033E+4	0.1271
2936.	0.7727	1.033E+4	0.1257
2938.	0.7711	1.033E+4	0.1247
2940.	0.7656	1.033E+4	0.1249
2942.	0.7721	1.034E+4	0.1261
2944.	0.7703	1.034E+4	0.1251
2946.	0.7713	1.034E+4	0.1243
2948.	0.7599	1.034E+4	0.1246
2950.	0.7671	1.034E+4	0.1251
2952.	0.7652	1.035E+4	0.1236
2954.	0.7706	1.035E+4	0.1236
2956.	0.7669	1.035E+4	0.126
2958.	0.7615	1.035E+4	0.124
2960.	0.7658	1.035E+4	0.1224
2962.	0.761	1.036E+4	0.1251
2964.	0.7612	1.036E+4	0.1229

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2966.	0.7621	1.036E+4	0.1263
2968.	0.7579	1.036E+4	0.1232
2970.	0.763	1.036E+4	0.1227
2972.	0.7608	1.037E+4	0.1266
2974.	0.7582	1.037E+4	0.122
2976.	0.7573	1.037E+4	0.1236
2978.	0.7634	1.037E+4	0.1221
2980.	0.7671	1.037E+4	0.1239
2982.	0.7598	1.038E+4	0.1244
2984.	0.7623	1.038E+4	0.123
2986.	0.7567	1.038E+4	0.1227
2988.	0.7627	1.038E+4	0.1263
2990.	0.7583	1.038E+4	0.1231
2992.	0.7585	1.039E+4	0.1207
2994.	0.7566	1.039E+4	0.1232
2996.	0.7617	1.039E+4	0.1223
2998.	0.7555	1.039E+4	0.123
3000.	0.7593	1.039E+4	0.1228
3002.	0.7542	1.04E+4	0.1238
3004.	0.7568	1.04E+4	0.1204
3006.	0.7544	1.04E+4	0.1239
3008.	0.7524	1.04E+4	0.124
3010.	0.7572	1.04E+4	0.1209
3012.	0.7575	1.041E+4	0.121
3014.	0.7598	1.041E+4	0.1253
3016.	0.7513	1.041E+4	0.121
3018.	0.7573	1.041E+4	0.1212
3020.	0.7561	1.041E+4	0.1217
3022.	0.7532	1.042E+4	0.1217
3024.	0.758	1.042E+4	0.1205
3026.	0.7548	1.042E+4	0.1239
3028.	0.7564	1.042E+4	0.1217
3030.	0.7552	1.042E+4	0.1199
3032.	0.7553	1.043E+4	0.1211
3034.	0.7548	1.043E+4	0.1213
3036.	0.7559	1.043E+4	0.1203
3038.	0.7563	1.043E+4	0.1238
3040.	0.7503	1.043E+4	0.1187
3042.	0.7492	1.044E+4	0.122
3044.	0.7581	1.044E+4	0.1225
3046.	0.7477	1.044E+4	0.1233
3048.	0.7486	1.044E+4	0.1185
3050.	0.7559	1.044E+4	0.1204
3052.	0.7474	1.045E+4	0.1193
3054.	0.7555	1.045E+4	0.1193
3056.	0.7546	1.045E+4	0.1224
3058.	0.7527	1.045E+4	0.1199
3060.	0.7536	1.045E+4	0.1177
3062.	0.7549	1.046E+4	0.1191
3064.	0.7519	1.046E+4	0.1223
3066.	0.7519	1.046E+4	0.1189
3068.	0.7508	1.046E+4	0.1231
3070.	0.7482	1.046E+4	0.1206
3072.	0.7468	1.047E+4	0.1227
3074.	0.7455	1.047E+4	0.1206
3076.	0.7496	1.047E+4	0.1179
3078.	0.7505	1.047E+4	0.1184
3080.	0.7486	1.047E+4	0.1188
3082.	0.7432	1.048E+4	0.1184
3084.	0.7522	1.048E+4	0.1203
3086.	0.7429	1.048E+4	0.1193
3088.	0.741	1.048E+4	0.1177
3090.	0.7431	1.048E+4	0.1215
3092.	0.7429	1.049E+4	0.1188
3094.	0.7422	1.049E+4	0.1189
3096.	0.747	1.049E+4	0.1209

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3098.	0.741	1.049E+4	0.1203
3100.	0.7475	1.049E+4	0.1195
3102.	0.747	1.05E+4	0.1185
3104.	0.7461	1.05E+4	0.1182
3106.	0.7461	1.05E+4	0.1176
3108.	0.7435	1.05E+4	0.119
3110.	0.7447	1.05E+4	0.1177
3112.	0.7437	1.051E+4	0.12
3114.	0.7447	1.051E+4	0.1178
3116.	0.7463	1.051E+4	0.1159
3118.	0.742	1.051E+4	0.1186
3120.	0.742	1.051E+4	0.1176
3122.	0.7432	1.052E+4	0.1168
3124.	0.7419	1.052E+4	0.1179
3126.	0.7433	1.052E+4	0.1174
3128.	0.7431	1.052E+4	0.1161
3130.	0.7412	1.052E+4	0.1168
3132.	0.742	1.053E+4	0.1189
3134.	0.7414	1.053E+4	0.118
3136.	0.7392	1.053E+4	0.1184
3138.	0.7414	1.053E+4	0.1159
3140.	0.7407	1.053E+4	0.119
3142.	0.7424	1.054E+4	0.1154
3144.	0.7385	1.054E+4	0.1191
3146.	0.7405	1.054E+4	0.1154
3148.	0.7412	1.054E+4	0.1157
3150.	0.7368	1.054E+4	0.1165
3152.	0.7371	1.055E+4	0.1178
3154.	0.7378	1.055E+4	0.1162
3156.	0.7406	1.055E+4	0.1179
3158.	0.7385	1.055E+4	0.1193
3160.	0.7369	1.055E+4	0.1141
3162.	0.735	1.056E+4	0.1172
3164.	0.7361	1.056E+4	0.1149
3166.	0.7355	1.056E+4	0.1137
3168.	0.7357	1.056E+4	0.1172
3170.	0.7362	1.056E+4	0.1189
3172.	0.7357	1.057E+4	0.1168
3174.	0.7353	1.057E+4	0.1158
3176.	0.7346	1.057E+4	0.1158
3178.	0.7345	1.057E+4	0.1165
3180.	0.7342	1.057E+4	0.1147
3182.	0.7363	1.058E+4	0.1146
3184.	0.733	1.058E+4	0.1188
3186.	0.7368	1.058E+4	0.1149
3188.	0.7326	1.058E+4	0.1124
3190.	0.7335	1.058E+4	0.1156
3192.	0.7355	1.059E+4	0.1134
3194.	0.7305	1.059E+4	0.116
3196.	0.7308	1.059E+4	0.1153
3198.	0.7313	1.059E+4	0.1155
3200.	0.7309	1.059E+4	0.1169
3202.	0.732	1.06E+4	0.1146
3204.	0.7323	1.06E+4	0.1147
3206.	0.7315	1.06E+4	0.113
3208.	0.7292	1.06E+4	0.1132
3210.	0.7326	1.06E+4	0.114
3212.	0.7288	1.061E+4	0.1124
3214.	0.7303	1.061E+4	0.1158
3216.	0.7293	1.061E+4	0.1126
3218.	0.7288	1.061E+4	0.1123
3220.	0.7303	1.061E+4	0.1119
3222.	0.7289	1.062E+4	0.1146
3224.	0.7296	1.062E+4	0.1146
3226.	0.7222	1.062E+4	0.1142
3228.	0.723	1.062E+4	0.1135

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3230.	0.7283	1.062E+4	0.1135
3232.	0.7256	1.063E+4	0.1129
3234.	0.7279	1.063E+4	0.1148
3236.	0.7262	1.063E+4	0.1127
3238.	0.7277	1.063E+4	0.1158
3240.	0.7246	1.063E+4	0.1129
3242.	0.7244	1.064E+4	0.1122
3244.	0.7262	1.064E+4	0.1151
3246.	0.7251	1.064E+4	0.116
3248.	0.724	1.064E+4	0.1162
3250.	0.724	1.064E+4	0.1131
3252.	0.7254	1.065E+4	0.113
3254.	0.724	1.065E+4	0.1118
3256.	0.7222	1.065E+4	0.1118
3258.	0.7213	1.065E+4	0.1126
3260.	0.7221	1.065E+4	0.1112
3262.	0.7223	1.066E+4	0.1158
3264.	0.7205	1.066E+4	0.1176
3266.	0.7236	1.066E+4	0.1115
3268.	0.7217	1.066E+4	0.1122
3270.	0.722	1.066E+4	0.1114
3272.	0.7216	1.067E+4	0.1127
3274.	0.7224	1.067E+4	0.1115
3276.	0.7201	1.067E+4	0.1109
3278.	0.7206	1.067E+4	0.112
3280.	0.7201	1.067E+4	0.1145
3282.	0.7204	1.068E+4	0.1121
3284.	0.7193	1.068E+4	0.1134
3286.	0.7198	1.068E+4	0.111
3288.	0.7196	1.068E+4	0.1112
3290.	0.7182	1.068E+4	0.1099
3292.	0.7187	1.069E+4	0.1101
3294.	0.7202	1.069E+4	0.1126
3296.	0.7184	1.069E+4	0.1103
3298.	0.7166	1.069E+4	0.1117
3300.	0.717	1.069E+4	0.111
3302.	0.7174	1.07E+4	0.1066
3304.	0.7189	1.07E+4	0.1094
3306.	0.7173	1.07E+4	0.1086
3308.	0.7178	1.07E+4	0.1112
3310.	0.718	1.07E+4	0.1121
3312.	0.7158	1.071E+4	0.1085
3314.	0.7128	1.071E+4	0.1119
3316.	0.7165	1.071E+4	0.1101
3318.	0.718	1.071E+4	0.1082
3320.	0.7141	1.071E+4	0.1084
3322.	0.7159	1.072E+4	0.1111
3324.	0.7113	1.072E+4	0.1112
3326.	0.7151	1.072E+4	0.1104
3328.	0.7149	1.072E+4	0.1114
3330.	0.7164	1.072E+4	0.1096
3332.	0.7137	1.073E+4	0.1091
3334.	0.7117	1.073E+4	0.1079
3336.	0.7127	1.073E+4	0.109
3338.	0.7135	1.073E+4	0.1094
3340.	0.71	1.073E+4	0.108
3342.	0.71	1.074E+4	0.1099
3344.	0.7116	1.074E+4	0.108
3346.	0.7104	1.074E+4	0.1086
3348.	0.7105	1.074E+4	0.1115
3350.	0.7116	1.074E+4	0.1079
3352.	0.7095	1.075E+4	0.1094
3354.	0.7116	1.075E+4	0.1095
3356.	0.7089	1.075E+4	0.1088
3358.	0.7078	1.075E+4	0.1094
3360.	0.7083	1.075E+4	0.1109

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3362.	0.7091	1.076E+4	0.109
3364.	0.7069	1.076E+4	0.1094
3366.	0.7088	1.076E+4	0.1074
3368.	0.7093	1.076E+4	0.1084
3370.	0.7066	1.076E+4	0.109
3372.	0.7067	1.077E+4	0.1098
3374.	0.7088	1.077E+4	0.1066
3376.	0.7075	1.077E+4	0.1078
3378.	0.7056	1.077E+4	0.1062
3380.	0.7091	1.077E+4	0.109
3382.	0.7062	1.078E+4	0.1071
3384.	0.7056	1.078E+4	0.109
3386.	0.707	1.078E+4	0.1088
3388.	0.7074	1.078E+4	0.1088
3390.	0.7036	1.078E+4	0.1088
3392.	0.7047	1.079E+4	0.1112
3394.	0.7051	1.079E+4	0.1056
3396.	0.7054	1.079E+4	0.1071
3398.	0.7028	1.079E+4	0.1097
3400.	0.7016	1.079E+4	0.1073
3402.	0.7049	1.08E+4	0.109
3404.	0.7025	1.08E+4	0.1072
3406.	0.7027	1.08E+4	0.1075
3408.	0.7004	1.08E+4	0.1075
3410.	0.7035	1.08E+4	0.1078
3412.	0.7036	1.081E+4	0.1057
3414.	0.6991	1.081E+4	0.1054
3416.	0.7005	1.081E+4	0.108
3418.	0.7028	1.081E+4	0.1085
3420.	0.7003	1.081E+4	0.1071
3422.	0.6971	1.082E+4	0.1046
3424.	0.7008	1.082E+4	0.1062
3426.	0.7004	1.082E+4	0.1061
3428.	0.7	1.082E+4	0.1044
3430.	0.6996	1.082E+4	0.104
3432.	0.6973	1.083E+4	0.1071
3434.	0.7011	1.083E+4	0.1084
3436.	0.6969	1.083E+4	0.1046
3438.	0.6972	1.083E+4	0.1051
3440.	0.6983	1.083E+4	0.1001
3442.	0.6949	1.084E+4	0.1091
3444.	0.6966	1.084E+4	0.1036
3446.	0.6978	1.084E+4	0.1043
3448.	0.6949	1.084E+4	0.1063
3450.	0.6966	1.084E+4	0.1043
3452.	0.698	1.085E+4	0.1067
3454.	0.694	1.085E+4	0.1067
3456.	0.6975	1.085E+4	0.1048
3458.	0.6959	1.085E+4	0.106
3460.	0.6965	1.085E+4	0.104
3462.	0.6937	1.086E+4	0.1063
3464.	0.6943	1.086E+4	0.1058
3466.	0.6918	1.086E+4	0.1057
3468.	0.6936	1.086E+4	0.1067
3470.	0.6949	1.086E+4	0.1058
3472.	0.6953	1.087E+4	0.1046
3474.	0.696	1.087E+4	0.1049
3476.	0.693	1.087E+4	0.1075
3478.	0.692	1.087E+4	0.1026
3480.	0.6925	1.087E+4	0.1045
3482.	0.6931	1.088E+4	0.1055
3484.	0.6927	1.088E+4	0.1055
3486.	0.6925	1.088E+4	0.1052
3488.	0.6923	1.088E+4	0.1051
3490.	0.6924	1.088E+4	0.1039
3492.	0.6905	1.089E+4	0.1036

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3494.	0.6912	1.089E+4	0.1028
3496.	0.6909	1.089E+4	0.1046
3498.	0.6921	1.089E+4	0.1036
3500.	0.6916	1.089E+4	0.1036
3502.	0.6894	1.09E+4	0.1047
3504.	0.6887	1.09E+4	0.1028
3506.	0.6876	1.09E+4	0.1056
3508.	0.6874	1.09E+4	0.1019
3510.	0.6881	1.09E+4	0.1032
3512.	0.6874	1.091E+4	0.1037
3514.	0.6876	1.091E+4	0.1036
3516.	0.6867	1.091E+4	0.0951
3518.	0.6884	1.091E+4	0.1025
3520.	0.6874	1.091E+4	0.1007
3522.	0.6847	1.092E+4	0.1042
3524.	0.6889	1.092E+4	0.1025
3526.	0.6868	1.092E+4	0.1003
3528.	0.6859	1.092E+4	0.103
3530.	0.6868	1.092E+4	0.1038
3532.	0.6866	1.093E+4	0.1047
3534.	0.6866	1.093E+4	0.1039
3536.	0.6852	1.093E+4	0.1017
3538.	0.6838	1.093E+4	0.1022
3540.	0.6853	1.093E+4	0.1043
3542.	0.684	1.094E+4	0.101
3544.	0.684	1.094E+4	0.1039
3546.	0.6846	1.094E+4	0.09997
3548.	0.6839	1.094E+4	0.1025
3550.	0.684	1.094E+4	0.1022
3552.	0.6822	1.095E+4	0.1023
3554.	0.683	1.095E+4	0.1024
3556.	0.6802	1.095E+4	0.09997
3558.	0.6808	1.095E+4	0.1003
3560.	0.6821	1.095E+4	0.1023
3562.	0.6819	1.096E+4	0.1025
3564.	0.6811	1.096E+4	0.09956
3566.	0.6823	1.096E+4	0.101
3568.	0.6815	1.096E+4	0.1007
3570.	0.681	1.096E+4	0.1026
3572.	0.6811	1.097E+4	0.1027
3574.	0.681	1.097E+4	0.09936
3576.	0.681	1.097E+4	0.09936
3578.	0.679	1.097E+4	0.1006
3580.	0.6778	1.097E+4	0.1009
3582.	0.6801	1.098E+4	0.1002
3584.	0.6778	1.098E+4	0.1026
3586.	0.6788	1.098E+4	0.1044
3588.	0.6786	1.098E+4	0.1018
3590.	0.6783	1.098E+4	0.101
3592.	0.6784	1.099E+4	0.1011
3594.	0.6768	1.099E+4	0.1014
3596.	0.6775	1.099E+4	0.1034
3598.	0.6781	1.099E+4	0.09883
3600.	0.6742	1.099E+4	0.1004
3602.	0.6742	1.1E+4	0.09997
3604.	0.6776	1.1E+4	0.09893
3606.	0.6752	1.1E+4	0.09789
3608.	0.6749	1.1E+4	0.1019
3610.	0.6767	1.1E+4	0.102
3612.	0.6748	1.101E+4	0.1006
3614.	0.6735	1.101E+4	0.09987
3616.	0.6742	1.101E+4	0.1006
3618.	0.6735	1.101E+4	0.09724
3620.	0.6718	1.101E+4	0.09967
3622.	0.6754	1.102E+4	0.09871
3624.	0.6718	1.102E+4	0.09789

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3626.	0.6742	1.102E+4	0.09671
3628.	0.6734	1.102E+4	0.09819
3630.	0.6748	1.102E+4	0.09871
3632.	0.673	1.103E+4	0.09808
3634.	0.6719	1.103E+4	0.09819
3636.	0.6733	1.103E+4	0.09946
3638.	0.6707	1.103E+4	0.09831
3640.	0.6736	1.103E+4	0.09956
3642.	0.6704	1.104E+4	0.0986
3644.	0.6709	1.104E+4	0.101
3646.	0.6699	1.104E+4	0.0986
3648.	0.6707	1.104E+4	0.09692
3650.	0.6705	1.104E+4	0.09628
3652.	0.6688	1.105E+4	0.1006
3654.	0.6675	1.105E+4	0.1001
3656.	0.6712	1.105E+4	0.09883
3658.	0.6673	1.105E+4	0.09755
3660.	0.6679	1.105E+4	0.09997
3662.	0.6684	1.106E+4	0.09566
3664.	0.6716	1.106E+4	0.1002
3666.	0.6683	1.106E+4	0.09681
3668.	0.6681	1.106E+4	0.09883
3670.	0.6689	1.106E+4	0.09671
3672.	0.6663	1.107E+4	0.09808
3674.	0.6662	1.107E+4	0.09755
3676.	0.6652	1.107E+4	0.09692
3678.	0.6644	1.107E+4	0.09692
3680.	0.669	1.107E+4	0.09799
3682.	0.6642	1.108E+4	0.09924
3684.	0.6681	1.108E+4	0.1006
3686.	0.6658	1.108E+4	0.0965
3688.	0.6635	1.108E+4	0.09596
3690.	0.6626	1.108E+4	0.09819
3692.	0.6643	1.109E+4	0.09755
3694.	0.6645	1.109E+4	0.09713
3696.	0.6661	1.109E+4	0.09776
3698.	0.6654	1.109E+4	0.09789
3700.	0.665	1.109E+4	0.09566
3702.	0.6644	1.11E+4	0.09808
3704.	0.6633	1.11E+4	0.09555
3706.	0.6651	1.11E+4	0.09596
3708.	0.6617	1.11E+4	0.09566
3710.	0.662	1.11E+4	0.09608
3712.	0.6642	1.111E+4	0.09776
3714.	0.662	1.111E+4	0.09534
3716.	0.6632	1.111E+4	0.09776
3718.	0.6616	1.111E+4	0.09871
3720.	0.6658	1.111E+4	0.08772
3722.	0.663	1.112E+4	0.09376
3724.	0.6588	1.112E+4	0.09819
3726.	0.6624	1.112E+4	0.09503
3728.	0.6602	1.112E+4	0.09503
3730.	0.6598	1.112E+4	0.09628
3732.	0.6596	1.113E+4	0.09734
3734.	0.6604	1.113E+4	0.09566
3736.	0.6578	1.113E+4	0.09724
3738.	0.661	1.113E+4	0.09692
3740.	0.6598	1.113E+4	0.09513
3742.	0.658	1.114E+4	0.09566
3744.	0.6578	1.114E+4	0.0931
3746.	0.6572	1.114E+4	0.0944
3748.	0.6581	1.114E+4	0.09586
3750.	0.6554	1.114E+4	0.09471
3752.	0.6566	1.115E+4	0.09681
3754.	0.6571	1.115E+4	0.09596
3756.	0.6587	1.115E+4	0.09544

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3758.	0.6569	1.115E+4	0.09596
3760.	0.656	1.115E+4	0.09471
3762.	0.6578	1.116E+4	0.09397
3764.	0.6556	1.116E+4	0.09301
3766.	0.657	1.116E+4	0.09586
3768.	0.6558	1.116E+4	0.09281
3770.	0.6553	1.116E+4	0.0931
3772.	0.6542	1.117E+4	0.09628
3774.	0.6556	1.117E+4	0.09291
3776.	0.6558	1.117E+4	0.0944
3778.	0.6531	1.117E+4	0.09397
3780.	0.6548	1.117E+4	0.09291
3782.	0.6535	1.118E+4	0.09503
3784.	0.6564	1.118E+4	0.09408
3786.	0.6524	1.118E+4	0.09333
3788.	0.6513	1.118E+4	0.09376
3790.	0.6506	1.118E+4	0.09123
3792.	0.6535	1.119E+4	0.09376
3794.	0.6499	1.119E+4	0.09123
3796.	0.6487	1.119E+4	0.09408
3798.	0.6489	1.119E+4	0.09365
3800.	0.6532	1.119E+4	0.09492
3802.	0.6516	1.12E+4	0.0945
3804.	0.6496	1.12E+4	0.09428
3806.	0.65	1.12E+4	0.09196
3808.	0.6493	1.12E+4	0.0927
3810.	0.6482	1.12E+4	0.09365
3812.	0.6487	1.121E+4	0.09428
3814.	0.6468	1.121E+4	0.09216
3816.	0.6509	1.121E+4	0.09238
3818.	0.6472	1.121E+4	0.09344
3820.	0.6485	1.121E+4	0.09503
3822.	0.6484	1.122E+4	0.0944
3824.	0.6462	1.122E+4	0.08995
3826.	0.6473	1.122E+4	0.09165
3828.	0.6455	1.122E+4	0.09544
3830.	0.6492	1.122E+4	0.09301
3832.	0.6471	1.123E+4	0.09238
3834.	0.6461	1.123E+4	0.0945
3836.	0.6456	1.123E+4	0.09248
3838.	0.6461	1.123E+4	0.09038
3840.	0.6457	1.123E+4	0.09386
3842.	0.6458	1.124E+4	0.09016
3844.	0.6455	1.124E+4	0.09132
3846.	0.6458	1.124E+4	0.0888
3848.	0.6435	1.124E+4	0.08975
3850.	0.644	1.124E+4	0.09143
3852.	0.6451	1.125E+4	0.09206
3854.	0.6449	1.125E+4	0.09102
3856.	0.643	1.125E+4	0.09006
3858.	0.6425	1.125E+4	0.09238
3860.	0.6447	1.125E+4	0.09175
3862.	0.6445	1.126E+4	0.08985
3864.	0.6427	1.126E+4	0.09143
3866.	0.6464	1.126E+4	0.09206
3868.	0.6428	1.126E+4	0.09354
3870.	0.6412	1.126E+4	0.09132
3872.	0.6425	1.127E+4	0.09321
3874.	0.6406	1.127E+4	0.09112
3876.	0.6445	1.127E+4	0.09184
3878.	0.6412	1.127E+4	0.08995
3880.	0.6421	1.127E+4	0.09016
3882.	0.6418	1.128E+4	0.09027
3884.	0.6402	1.128E+4	0.09102
3886.	0.6434	1.128E+4	0.08815
3888.	0.6402	1.128E+4	0.09049

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3890.	0.6367	1.128E+4	0.08922
3892.	0.638	1.129E+4	0.09038
3894.	0.6389	1.129E+4	0.09006
3896.	0.6402	1.129E+4	0.08911
3898.	0.6373	1.129E+4	0.09102
3900.	0.6385	1.129E+4	0.09016
3902.	0.6377	1.13E+4	0.08869
3904.	0.6359	1.13E+4	0.08985
3906.	0.6396	1.13E+4	0.08963
3908.	0.6366	1.13E+4	0.09155
3910.	0.6362	1.13E+4	0.09049
3912.	0.6336	1.131E+4	0.09196
3914.	0.6345	1.131E+4	0.08954
3916.	0.6371	1.131E+4	0.09132
3918.	0.636	1.131E+4	0.08889
3920.	0.635	1.131E+4	0.08764
3922.	0.6337	1.132E+4	0.09059
3924.	0.6354	1.132E+4	0.08752
3926.	0.6338	1.132E+4	0.09027
3928.	0.6354	1.132E+4	0.09006
3930.	0.6341	1.132E+4	0.08815
3932.	0.6352	1.133E+4	0.08764
3934.	0.6345	1.133E+4	0.09038
3936.	0.6341	1.133E+4	0.08774
3938.	0.6317	1.133E+4	0.08774
3940.	0.632	1.133E+4	0.08847
3942.	0.6345	1.134E+4	0.08942
3944.	0.6322	1.134E+4	0.09006
3946.	0.6322	1.134E+4	0.08752
3948.	0.6332	1.134E+4	0.08574
3950.	0.6311	1.134E+4	0.08995
3952.	0.6316	1.135E+4	0.08837
3954.	0.6315	1.135E+4	0.08889
3956.	0.6319	1.135E+4	0.08605
3958.	0.6299	1.135E+4	0.0871
3960.	0.6303	1.135E+4	0.08689
3962.	0.6314	1.136E+4	0.08743
3964.	0.6325	1.136E+4	0.08752
3966.	0.6286	1.136E+4	0.08731
3968.	0.6291	1.136E+4	0.08774
3970.	0.6285	1.136E+4	0.08963
3972.	0.6301	1.137E+4	0.08743
3974.	0.6288	1.137E+4	0.08551
3976.	0.6304	1.137E+4	0.08858
3978.	0.6281	1.137E+4	0.08764
3980.	0.6288	1.137E+4	0.09016
3982.	0.6289	1.138E+4	0.0854
3984.	0.6276	1.138E+4	0.08479
3986.	0.6258	1.138E+4	0.08657
3988.	0.625	1.138E+4	0.0871
3990.	0.6283	1.138E+4	0.08614
3992.	0.6262	1.139E+4	0.08489
3994.	0.6257	1.139E+4	0.08815
3996.	0.6271	1.139E+4	0.08425
3998.	0.6255	1.139E+4	0.08668
4000.	0.6268	1.139E+4	0.08657
4002.	0.6245	1.14E+4	0.08648
4004.	0.6254	1.14E+4	0.08657
4006.	0.625	1.14E+4	0.0871
4008.	0.6244	1.14E+4	0.08489
4010.	0.6235	1.14E+4	0.08405
4012.	0.6252	1.141E+4	0.08805
4014.	0.6232	1.141E+4	0.08551
4016.	0.6234	1.141E+4	0.0854
4018.	0.6241	1.141E+4	0.08456
4020.	0.624	1.141E+4	0.08468

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4022.	0.6223	1.142E+4	0.08764
4024.	0.6246	1.142E+4	0.08509
4026.	0.6215	1.142E+4	0.08625
4028.	0.6212	1.142E+4	0.08648
4030.	0.6219	1.142E+4	0.08678
4032.	0.622	1.143E+4	0.08446
4034.	0.6236	1.143E+4	0.08699
4036.	0.6209	1.143E+4	0.08456
4038.	0.6215	1.143E+4	0.08847
4040.	0.6217	1.143E+4	0.08574
4042.	0.62	1.144E+4	0.08489
4044.	0.6226	1.144E+4	0.08373
4046.	0.622	1.144E+4	0.08394
4048.	0.618	1.144E+4	0.08668
4050.	0.6189	1.144E+4	0.0853
4052.	0.6177	1.145E+4	0.0832
4054.	0.6177	1.145E+4	0.08657
4056.	0.6168	1.145E+4	0.08743
4058.	0.6191	1.145E+4	0.09059
4060.	0.6176	1.145E+4	0.08425
4062.	0.618	1.146E+4	0.08446
4064.	0.6181	1.146E+4	0.08331
4066.	0.6195	1.146E+4	0.08436
4068.	0.6169	1.146E+4	0.08498
4070.	0.6169	1.146E+4	0.08331
4072.	0.6162	1.147E+4	0.08415
4074.	0.6175	1.147E+4	0.08456
4076.	0.6164	1.147E+4	0.08562
4078.	0.6166	1.147E+4	0.08193
4080.	0.6164	1.147E+4	0.08574
4082.	0.6162	1.148E+4	0.08456
4084.	0.6166	1.148E+4	0.08498
4086.	0.6182	1.148E+4	0.08562
4088.	0.6166	1.148E+4	0.08584
4090.	0.6144	1.148E+4	0.08331
4092.	0.6129	1.149E+4	0.08415
4094.	0.6153	1.149E+4	0.0812
4096.	0.6139	1.149E+4	0.08383
4098.	0.6132	1.149E+4	0.08309
4100.	0.612	1.149E+4	0.08278
4102.	0.614	1.15E+4	0.08256
4104.	0.6135	1.15E+4	0.08267
4106.	0.6114	1.15E+4	0.08236
4108.	0.6119	1.15E+4	0.08182
4110.	0.6124	1.15E+4	0.08479
4112.	0.6124	1.151E+4	0.08479
4114.	0.612	1.151E+4	0.0815
4116.	0.6107	1.151E+4	0.0812
4118.	0.6132	1.151E+4	0.08139
4120.	0.6096	1.151E+4	0.08236
4122.	0.6092	1.152E+4	0.08373
4124.	0.6128	1.152E+4	0.08436
4126.	0.6106	1.152E+4	0.08236
4128.	0.6093	1.152E+4	0.08256
4130.	0.6091	1.152E+4	0.08203
4132.	0.6081	1.153E+4	0.08203
4134.	0.6089	1.153E+4	0.08161
4136.	0.6088	1.153E+4	0.08213
4138.	0.6096	1.153E+4	0.08614
4140.	0.6092	1.153E+4	0.0815
4142.	0.6104	1.154E+4	0.08614
4144.	0.6074	1.154E+4	0.08267
4146.	0.6105	1.154E+4	0.0815
4148.	0.6079	1.154E+4	0.08099
4150.	0.6124	1.154E+4	0.08203
4152.	0.6073	1.155E+4	0.08213

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4154.	0.6058	1.155E+4	0.08203
4156.	0.6056	1.155E+4	0.07981
4158.	0.6054	1.155E+4	0.0813
4160.	0.605	1.155E+4	0.08139
4162.	0.606	1.156E+4	0.07992
4164.	0.6047	1.156E+4	0.08161
4166.	0.6055	1.156E+4	0.08236
4168.	0.6042	1.156E+4	0.08099
4170.	0.6028	1.156E+4	0.08246
4172.	0.607	1.157E+4	0.08075
4174.	0.6025	1.157E+4	0.08246
4176.	0.6038	1.157E+4	0.08225
4178.	0.6038	1.157E+4	0.08341
4180.	0.6042	1.157E+4	0.08034
4182.	0.6038	1.158E+4	0.07717
4184.	0.6056	1.158E+4	0.0796
4186.	0.603	1.158E+4	0.08004
4188.	0.6007	1.158E+4	0.08015
4190.	0.6009	1.158E+4	0.08479
4192.	0.6039	1.159E+4	0.08289
4194.	0.6018	1.159E+4	0.07717
4196.	0.6019	1.159E+4	0.07241
4198.	0.6025	1.159E+4	0.07918
4200.	0.6013	1.159E+4	0.08075
4202.	0.5997	1.16E+4	0.08015
4204.	0.6012	1.16E+4	0.07876
4206.	0.6014	1.16E+4	0.07886
4208.	0.5991	1.16E+4	0.0813
4210.	0.6019	1.16E+4	0.0812
4212.	0.5984	1.161E+4	0.07951
4214.	0.6	1.161E+4	0.07918
4216.	0.5974	1.161E+4	0.0812
4218.	0.5981	1.161E+4	0.08015
4220.	0.6008	1.161E+4	0.07845
4222.	0.5977	1.162E+4	0.07813
4224.	0.5977	1.162E+4	0.07866
4226.	0.5979	1.162E+4	0.0813
4228.	0.5984	1.162E+4	0.07876
4230.	0.5973	1.162E+4	0.07971
4232.	0.5988	1.163E+4	0.07759
4234.	0.5962	1.163E+4	0.07866
4236.	0.5953	1.163E+4	0.08056
4238.	0.5951	1.163E+4	0.07951
4240.	0.5977	1.163E+4	0.07981
4242.	0.5954	1.164E+4	0.07845
4244.	0.5958	1.164E+4	0.07707
4246.	0.5958	1.164E+4	0.08086
4248.	0.5957	1.164E+4	0.08024
4250.	0.594	1.164E+4	0.08086
4252.	0.5969	1.165E+4	0.07992
4254.	0.5947	1.165E+4	0.0793
4256.	0.5945	1.165E+4	0.07769
4258.	0.5969	1.165E+4	0.07769
4260.	0.5917	1.165E+4	0.07686
4262.	0.5915	1.166E+4	0.07717
4264.	0.5941	1.166E+4	0.07019
4266.	0.5923	1.166E+4	0.07845
4268.	0.5926	1.166E+4	0.07495
4270.	0.5924	1.166E+4	0.07769
4272.	0.5928	1.167E+4	0.07686
4274.	0.5921	1.167E+4	0.07676
4276.	0.5904	1.167E+4	0.07634
4278.	0.5919	1.167E+4	0.07824
4280.	0.5924	1.167E+4	0.0758
4282.	0.5926	1.168E+4	0.07665
4284.	0.5931	1.168E+4	0.07971

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4286.	0.5893	1.168E+4	0.07791
4288.	0.5906	1.168E+4	0.07769
4290.	0.5906	1.168E+4	0.07612
4292.	0.5906	1.169E+4	0.07813
4294.	0.588	1.169E+4	0.08024
4296.	0.5914	1.169E+4	0.0755
4298.	0.5908	1.169E+4	0.07634
4300.	0.5917	1.169E+4	0.07624
4302.	0.5884	1.17E+4	0.07624
4304.	0.5915	1.17E+4	0.07655
4306.	0.5905	1.17E+4	0.07601
4308.	0.5878	1.17E+4	0.07791
4310.	0.5892	1.17E+4	0.07624
4312.	0.5894	1.171E+4	0.07676
4314.	0.5874	1.171E+4	0.0793
4316.	0.5872	1.171E+4	0.07981
4318.	0.5906	1.171E+4	0.07665
4320.	0.585	1.171E+4	0.07539
4322.	0.5879	1.172E+4	0.0758
4324.	0.5858	1.172E+4	0.08065
4326.	0.5874	1.172E+4	0.07686
4328.	0.5858	1.172E+4	0.07686
4330.	0.5842	1.172E+4	0.07655
4332.	0.5859	1.173E+4	0.07738
4334.	0.586	1.173E+4	0.07506
4336.	0.5859	1.173E+4	0.07495
4338.	0.5851	1.173E+4	0.07918
4340.	0.586	1.173E+4	0.07591
4342.	0.5849	1.174E+4	0.07327
4344.	0.5868	1.174E+4	0.07475
4346.	0.5828	1.174E+4	0.07729
4348.	0.5837	1.174E+4	0.07665
4350.	0.5847	1.174E+4	0.0737
4352.	0.5844	1.175E+4	0.07527
4354.	0.5802	1.175E+4	0.07399
4356.	0.5849	1.175E+4	0.07707
4358.	0.5855	1.175E+4	0.07634
4360.	0.5838	1.175E+4	0.07676
4362.	0.5844	1.176E+4	0.07748
4364.	0.5819	1.176E+4	0.0756
4366.	0.5824	1.176E+4	0.07357
4368.	0.5824	1.176E+4	0.07591
4370.	0.5821	1.176E+4	0.0739
4372.	0.5814	1.177E+4	0.07422
4374.	0.5823	1.177E+4	0.07454
4376.	0.5828	1.177E+4	0.07527
4378.	0.58	1.177E+4	0.0737
4380.	0.581	1.177E+4	0.07201
4382.	0.58	1.178E+4	0.07338
4384.	0.5791	1.178E+4	0.0741
4386.	0.5794	1.178E+4	0.07286
4388.	0.58	1.178E+4	0.07665
4390.	0.5787	1.178E+4	0.07591
4392.	0.5775	1.179E+4	0.07485
4394.	0.5784	1.179E+4	0.07307
4396.	0.5764	1.179E+4	0.07686
4398.	0.579	1.179E+4	0.07539
4400.	0.5779	1.179E+4	0.07433
4402.	0.5771	1.18E+4	0.07338
4404.	0.5743	1.18E+4	0.07422
4406.	0.5758	1.18E+4	0.07286
4408.	0.5709	1.18E+4	0.07348
4410.	0.5738	1.18E+4	0.07296
4412.	0.5745	1.181E+4	0.07243
4414.	0.5766	1.181E+4	0.07465
4416.	0.5787	1.181E+4	0.07274

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4418.	0.5756	1.181E+4	0.07327
4420.	0.5696	1.181E+4	0.07348
4422.	0.5776	1.182E+4	0.07243
4424.	0.5765	1.182E+4	0.07286
4426.	0.5731	1.182E+4	0.07104
4428.	0.5758	1.182E+4	0.07485
4430.	0.5714	1.182E+4	0.07158
4432.	0.5718	1.183E+4	0.0737
4434.	0.5764	1.183E+4	0.07348
4436.	0.5746	1.183E+4	0.0739
4438.	0.5731	1.183E+4	0.07591
4440.	0.5785	1.183E+4	0.07221
4442.	0.5779	1.184E+4	0.07148
4444.	0.5734	1.184E+4	0.07265
4446.	0.5747	1.184E+4	0.07286
4448.	0.5662	1.184E+4	0.0758
4450.	0.5705	1.184E+4	0.07253
4452.	0.5694	1.185E+4	0.06926
4454.	0.5746	1.185E+4	0.07348
4456.	0.5711	1.185E+4	0.07265
4458.	0.571	1.185E+4	0.07274
4460.	0.5686	1.185E+4	0.07327
4462.	0.5721	1.186E+4	0.07148
4464.	0.5715	1.186E+4	0.07126
4466.	0.5698	1.186E+4	0.07073
4468.	0.5611	1.186E+4	0.07126
4470.	0.5656	1.186E+4	0.07169
4472.	0.5723	1.187E+4	0.07158
4474.	0.571	1.187E+4	0.0721
4476.	0.5693	1.187E+4	0.06968
4478.	0.5725	1.187E+4	0.07031
4480.	0.5656	1.187E+4	0.06979
4482.	0.5639	1.188E+4	0.07041
4484.	0.5655	1.188E+4	0.0721
4486.	0.5671	1.188E+4	0.07148
4488.	0.5699	1.188E+4	0.07148
4490.	0.5638	1.188E+4	0.0721
4492.	0.5714	1.189E+4	0.07274
4494.	0.5665	1.189E+4	0.07063
4496.	0.5589	1.189E+4	0.07095
4498.	0.5655	1.189E+4	0.06958
4500.	0.5657	1.189E+4	0.07031
4502.	0.5681	1.19E+4	0.07041
4504.	0.5675	1.19E+4	0.06979
4506.	0.5687	1.19E+4	0.07179
4508.	0.5652	1.19E+4	0.07115
4510.	0.5642	1.19E+4	0.06852
4512.	0.5687	1.191E+4	0.07316
4514.	0.5657	1.191E+4	0.07265
4516.	0.563	1.191E+4	0.06714
4518.	0.5669	1.191E+4	0.07054
4520.	0.5594	1.191E+4	0.07063
4522.	0.5659	1.192E+4	0.06905
4524.	0.5599	1.192E+4	0.06947
4526.	0.5653	1.192E+4	0.06725
4528.	0.5633	1.192E+4	0.06958
4530.	0.5649	1.192E+4	0.07148
4532.	0.5587	1.193E+4	0.07031
4534.	0.5624	1.193E+4	0.06862
4536.	0.5568	1.193E+4	0.07073
4538.	0.5604	1.193E+4	0.06988
4540.	0.5569	1.193E+4	0.06841
4542.	0.5639	1.194E+4	0.0702
4544.	0.5632	1.194E+4	0.06947
4546.	0.5627	1.194E+4	0.06979
4548.	0.5484	1.194E+4	0.06916

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4550.	0.5582	1.194E+4	0.06895
4552.	0.5575	1.195E+4	0.06841
4554.	0.5619	1.195E+4	0.07115
4556.	0.5523	1.195E+4	0.06916
4558.	0.5593	1.195E+4	0.06778
4560.	0.5552	1.195E+4	0.06704
4562.	0.5593	1.196E+4	0.06895
4564.	0.554	1.196E+4	0.06947
4566.	0.554	1.196E+4	0.07031
4568.	0.5591	1.196E+4	0.0682
4570.	0.5533	1.196E+4	0.06673
4572.	0.552	1.197E+4	0.06947
4574.	0.5504	1.197E+4	0.06862
4576.	0.5527	1.197E+4	0.07084
4578.	0.554	1.197E+4	0.06895
4580.	0.5568	1.197E+4	0.06916
4582.	0.5577	1.198E+4	0.06979
4584.	0.5557	1.198E+4	0.06746
4586.	0.5573	1.198E+4	0.06874
4588.	0.5506	1.198E+4	0.06736
4590.	0.549	1.198E+4	0.06852
4592.	0.5581	1.199E+4	0.07126
4594.	0.5571	1.199E+4	0.06768
4596.	0.5544	1.199E+4	0.06979
4598.	0.5545	1.199E+4	0.06789
4600.	0.5554	1.199E+4	0.06926
4602.	0.5531	1.2E+4	0.06746
4604.	0.5549	1.2E+4	0.06736
4606.	0.5544	1.2E+4	0.06673
4608.	0.5537	1.2E+4	0.06905
4610.	0.5557	1.2E+4	0.06862
4612.	0.5554	1.201E+4	0.06651
4614.	0.5458	1.201E+4	0.0643
4616.	0.5577	1.201E+4	0.06673
4618.	0.5536	1.201E+4	0.06673
4620.	0.5533	1.201E+4	0.0663
4622.	0.5531	1.202E+4	0.06811
4624.	0.5511	1.202E+4	0.06567
4626.	0.5503	1.202E+4	0.06683
4628.	0.5534	1.202E+4	0.06714
4630.	0.5507	1.202E+4	0.06588
4632.	0.5515	1.203E+4	0.06736
4634.	0.5506	1.203E+4	0.06662
4636.	0.5521	1.203E+4	0.06789
4638.	0.5504	1.203E+4	0.06651
4640.	0.5444	1.203E+4	0.06926
4642.	0.5513	1.204E+4	0.0682
4644.	0.5493	1.204E+4	0.06069
4646.	0.5522	1.204E+4	0.06683
4648.	0.5518	1.204E+4	0.06905
4650.	0.5531	1.204E+4	0.06577
4652.	0.5462	1.205E+4	0.06525
4654.	0.5493	1.205E+4	0.06608
4656.	0.5496	1.205E+4	0.06577
4658.	0.5481	1.205E+4	0.0663
4660.	0.5486	1.205E+4	0.06608
4662.	0.5484	1.206E+4	0.06515
4664.	0.5406	1.206E+4	0.06398
4666.	0.5466	1.206E+4	0.06673
4668.	0.5472	1.206E+4	0.06557
4670.	0.5449	1.206E+4	0.06324
4672.	0.5477	1.207E+4	0.06472
4674.	0.5459	1.207E+4	0.06683
4676.	0.5485	1.207E+4	0.06439
4678.	0.5462	1.207E+4	0.06525
4680.	0.5453	1.207E+4	0.06683

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4682.	0.546	1.208E+4	0.06557
4684.	0.545	1.208E+4	0.06388
4686.	0.5448	1.208E+4	0.0624
4688.	0.5476	1.208E+4	0.06439
4690.	0.5452	1.208E+4	0.06355
4692.	0.5435	1.209E+4	0.06439
4694.	0.5442	1.209E+4	0.06483
4696.	0.5423	1.209E+4	0.0627
4698.	0.5443	1.209E+4	0.06378
4700.	0.545	1.209E+4	0.06651
4702.	0.5443	1.21E+4	0.06662
4704.	0.5436	1.21E+4	0.06345
4706.	0.5454	1.21E+4	0.06493
4708.	0.5468	1.21E+4	0.06503
4710.	0.5424	1.21E+4	0.0627
4712.	0.5405	1.211E+4	0.06335
4714.	0.5415	1.211E+4	0.0642
4716.	0.5401	1.211E+4	0.06535
4718.	0.5406	1.211E+4	0.06293
4720.	0.5439	1.211E+4	0.06567
4722.	0.5436	1.212E+4	0.0627
4724.	0.5418	1.212E+4	0.06259
4726.	0.5404	1.212E+4	0.06324
4728.	0.5416	1.212E+4	0.06409
4730.	0.5414	1.212E+4	0.06714
4732.	0.54	1.213E+4	0.06293
4734.	0.5417	1.213E+4	0.06324
4736.	0.5385	1.213E+4	0.06335
4738.	0.5386	1.213E+4	0.06378
4740.	0.5387	1.213E+4	0.06641
4742.	0.5406	1.214E+4	0.05902
4744.	0.5395	1.214E+4	0.06545
4746.	0.5395	1.214E+4	0.0663
4748.	0.5371	1.214E+4	0.06282
4750.	0.5384	1.214E+4	0.06515
4752.	0.5393	1.215E+4	0.06335
4754.	0.539	1.215E+4	0.06462
4756.	0.5374	1.215E+4	0.06335
4758.	0.5364	1.215E+4	0.06282
4760.	0.5392	1.215E+4	0.06166
4762.	0.5361	1.216E+4	0.06218
4764.	0.5374	1.216E+4	0.06409
4766.	0.5355	1.216E+4	0.06218
4768.	0.5353	1.216E+4	0.06228
4770.	0.5353	1.216E+4	0.06282
4772.	0.5343	1.217E+4	0.06218
4774.	0.5334	1.217E+4	0.06462
4776.	0.5339	1.217E+4	0.06259
4778.	0.535	1.217E+4	0.06388
4780.	0.5368	1.217E+4	0.06198
4782.	0.5359	1.218E+4	0.06388
4784.	0.5335	1.218E+4	0.0627
4786.	0.5318	1.218E+4	0.0624
4788.	0.5343	1.218E+4	0.06282
4790.	0.5308	1.218E+4	0.0627
4792.	0.534	1.219E+4	0.06071
4794.	0.5329	1.219E+4	0.06188
4796.	0.5348	1.219E+4	0.0625
4798.	0.5353	1.219E+4	0.05986
4800.	0.5319	1.219E+4	0.0627
4802.	0.5356	1.22E+4	0.06198
4804.	0.533	1.22E+4	0.06218
4806.	0.5321	1.22E+4	0.06259
4808.	0.531	1.22E+4	0.0605
4810.	0.5337	1.22E+4	0.0625
4812.	0.5312	1.221E+4	0.06166

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4814.	0.5298	1.221E+4	0.06123
4816.	0.5306	1.221E+4	0.06103
4818.	0.5313	1.221E+4	0.06366
4820.	0.5299	1.221E+4	0.06177
4822.	0.5313	1.222E+4	0.06103
4824.	0.532	1.222E+4	0.05859
4826.	0.5308	1.222E+4	0.06156
4828.	0.5305	1.222E+4	0.0627
4830.	0.535	1.222E+4	0.06071
4832.	0.5315	1.223E+4	0.0588
4834.	0.5323	1.223E+4	0.0627
4836.	0.5311	1.223E+4	0.06092
4838.	0.5297	1.223E+4	0.05975
4840.	0.5327	1.223E+4	0.05933
4842.	0.5294	1.224E+4	0.06039
4844.	0.5293	1.224E+4	0.05975
4846.	0.5273	1.224E+4	0.05933
4848.	0.5264	1.224E+4	0.05997
4850.	0.5269	1.224E+4	0.06146
4852.	0.527	1.225E+4	0.06156
4854.	0.5291	1.225E+4	0.05869
4856.	0.5262	1.225E+4	0.06039
4858.	0.5271	1.225E+4	0.0605
4860.	0.5276	1.225E+4	0.06039
4862.	0.5271	1.226E+4	0.05933
4864.	0.527	1.226E+4	0.06029
4866.	0.5256	1.226E+4	0.05869
4868.	0.525	1.226E+4	0.05975
4870.	0.527	1.226E+4	0.05786
4872.	0.5247	1.227E+4	0.06081
4874.	0.5276	1.227E+4	0.05891
4876.	0.5237	1.227E+4	0.06123
4878.	0.5269	1.227E+4	0.05986
4880.	0.5226	1.227E+4	0.06061
4882.	0.5246	1.228E+4	0.0605
4884.	0.5225	1.228E+4	0.05839
4886.	0.5231	1.228E+4	0.0588
4888.	0.5241	1.228E+4	0.05713
4890.	0.5219	1.228E+4	0.06029
4892.	0.5215	1.229E+4	0.05913
4894.	0.5237	1.229E+4	0.05954
4896.	0.5248	1.229E+4	0.0605
4898.	0.5216	1.229E+4	0.06134
4900.	0.5268	1.229E+4	0.05745
4902.	0.5262	1.23E+4	0.0588
4904.	0.5222	1.23E+4	0.05807
4906.	0.522	1.23E+4	0.06039
4908.	0.5229	1.23E+4	0.05723
4910.	0.5213	1.23E+4	0.06218
4912.	0.5217	1.231E+4	0.05786
4914.	0.52	1.231E+4	0.06039
4916.	0.5243	1.231E+4	0.0567
4918.	0.5196	1.231E+4	0.05807
4920.	0.5207	1.231E+4	0.05913
4922.	0.522	1.232E+4	0.05997
4924.	0.5185	1.232E+4	0.05954
4926.	0.5225	1.232E+4	0.05745
4928.	0.5198	1.232E+4	0.05701
4930.	0.5196	1.232E+4	0.05848
4932.	0.5217	1.233E+4	0.05564
4934.	0.5175	1.233E+4	0.05807
4936.	0.518	1.233E+4	0.05965
4938.	0.5173	1.233E+4	0.05723
4940.	0.5205	1.233E+4	0.05638
4942.	0.5177	1.234E+4	0.05839
4944.	0.5193	1.234E+4	0.05817

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
4946.	0.5216	1.234E+4	0.05913
4948.	0.5179	1.234E+4	0.0568
4950.	0.5148	1.234E+4	0.05584
4952.	0.5185	1.235E+4	0.06103
4954.	0.517	1.235E+4	0.05829
4956.	0.5186	1.235E+4	0.05617
4958.	0.5162	1.235E+4	0.05776
4960.	0.5145	1.235E+4	0.05713
4962.	0.5157	1.236E+4	0.05859
4964.	0.5154	1.236E+4	0.05839
4966.	0.5134	1.236E+4	0.05786
4968.	0.5148	1.236E+4	0.05723
4970.	0.5167	1.236E+4	0.05795
4972.	0.516	1.237E+4	0.05859
4974.	0.514	1.237E+4	0.05807
4976.	0.5147	1.237E+4	0.05574
4978.	0.5143	1.237E+4	0.05521
4980.	0.5161	1.237E+4	0.05638
4982.	0.5179	1.238E+4	0.05627
4984.	0.514	1.238E+4	0.05479
4986.	0.5158	1.238E+4	0.05396
4988.	0.517	1.238E+4	0.0568
4990.	0.5143	1.238E+4	0.05596
4992.	0.5109	1.239E+4	0.05428
4994.	0.5112	1.239E+4	0.05859
4996.	0.511	1.239E+4	0.05553
4998.	0.5161	1.239E+4	0.05638
5000.	0.5134	1.239E+4	0.05553
5002.	0.5096	1.24E+4	0.05428
5004.	0.5129	1.24E+4	0.05701
5006.	0.5101	1.24E+4	0.05459
5008.	0.511	1.24E+4	0.05986
5010.	0.5103	1.24E+4	0.05733
5012.	0.5116	1.241E+4	0.05459
5014.	0.5114	1.241E+4	0.05322
5016.	0.5089	1.241E+4	0.05713
5018.	0.5122	1.241E+4	0.05859
5020.	0.5084	1.241E+4	0.05459
5022.	0.5068	1.242E+4	0.05428
5024.	0.5095	1.242E+4	0.05448
5026.	0.5086	1.242E+4	0.05733
5028.	0.508	1.242E+4	0.05469
5030.	0.5083	1.242E+4	0.05406
5032.	0.5088	1.243E+4	0.05584
5034.	0.5082	1.243E+4	0.0588
5036.	0.5109	1.243E+4	0.05564
5038.	0.5092	1.243E+4	0.05428
5040.	0.5087	1.243E+4	0.05617
5042.	0.5081	1.244E+4	0.0528
5044.	0.5074	1.244E+4	0.05754
5046.	0.5116	1.244E+4	0.0566
5048.	0.5053	1.244E+4	0.05479
5050.	0.5059	1.244E+4	0.05237
5052.	0.5045	1.245E+4	0.05406
5054.	0.5093	1.245E+4	0.05416
5056.	0.5056	1.245E+4	0.05584
5058.	0.5044	1.245E+4	0.05713
5060.	0.5043	1.245E+4	0.05438
5062.	0.5048	1.246E+4	0.05068
5064.	0.5046	1.246E+4	0.05479
5066.	0.5039	1.246E+4	0.05204
5068.	0.505	1.246E+4	0.0551
5070.	0.5044	1.246E+4	0.05193
5072.	0.5065	1.247E+4	0.05322
5074.	0.5068	1.247E+4	0.05406
5076.	0.5021	1.247E+4	0.05553

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5078.	0.5043	1.247E+4	0.05386
5080.	0.5063	1.247E+4	0.05627
5082.	0.5043	1.248E+4	0.05322
5084.	0.5019	1.248E+4	0.0531
5086.	0.5031	1.248E+4	0.05386
5088.	0.5034	1.248E+4	0.05374
5090.	0.505	1.248E+4	0.05193
5092.	0.5045	1.249E+4	0.05386
5094.	0.4973	1.249E+4	0.05354
5096.	0.5018	1.249E+4	0.05099
5098.	0.5008	1.249E+4	0.05438
5100.	0.5023	1.249E+4	0.05564
5102.	0.5019	1.25E+4	0.05521
5104.	0.5	1.25E+4	0.05289
5106.	0.5004	1.25E+4	0.05374
5108.	0.5032	1.25E+4	0.0509
5110.	0.5023	1.25E+4	0.05459
5112.	0.5003	1.251E+4	0.05386
5114.	0.5023	1.251E+4	0.05162
5116.	0.4993	1.251E+4	0.05364
5118.	0.4996	1.251E+4	0.05193
5120.	0.5021	1.251E+4	0.05342
5122.	0.4991	1.252E+4	0.05532
5124.	0.4987	1.252E+4	0.05204
5126.	0.4981	1.252E+4	0.05332
5128.	0.4959	1.252E+4	0.05342
5130.	0.5005	1.252E+4	0.05374
5132.	0.4997	1.253E+4	0.05173
5134.	0.4977	1.253E+4	0.05129
5136.	0.4989	1.253E+4	0.05574
5138.	0.4992	1.253E+4	0.05005
5140.	0.4982	1.253E+4	0.05068
5142.	0.4985	1.254E+4	0.0491
5144.	0.4999	1.254E+4	0.05153
5146.	0.4988	1.254E+4	0.05204
5148.	0.4981	1.254E+4	0.05193
5150.	0.4989	1.254E+4	0.05215
5152.	0.4967	1.255E+4	0.05204
5154.	0.4949	1.255E+4	0.0531
5156.	0.4955	1.255E+4	0.05933
5158.	0.4979	1.255E+4	0.05268
5160.	0.4949	1.255E+4	0.05193
5162.	0.4965	1.256E+4	0.05025
5164.	0.4968	1.256E+4	0.05056
5166.	0.4942	1.256E+4	0.0509
5168.	0.4946	1.256E+4	0.04983
5170.	0.4958	1.256E+4	0.05258
5172.	0.4932	1.257E+4	0.05332
5174.	0.4919	1.257E+4	0.05162
5176.	0.4925	1.257E+4	0.05162
5178.	0.4932	1.257E+4	0.05193
5180.	0.4938	1.257E+4	0.0511
5182.	0.4944	1.258E+4	0.05068
5184.	0.483	1.258E+4	0.05193
5186.	0.4888	1.258E+4	0.05142
5188.	0.4946	1.258E+4	0.05099
5190.	0.4964	1.258E+4	0.05173
5192.	0.4935	1.259E+4	0.05047
5194.	0.4864	1.259E+4	0.04921
5196.	0.4912	1.259E+4	0.04995
5198.	0.4852	1.259E+4	0.0494
5200.	0.4859	1.259E+4	0.05005
5202.	0.4908	1.26E+4	0.05162
5204.	0.4868	1.26E+4	0.05068
5206.	0.4916	1.26E+4	0.05342
5208.	0.4874	1.26E+4	0.05056

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5210.	0.4844	1.26E+4	0.04983
5212.	0.491	1.261E+4	0.0491
5214.	0.4843	1.261E+4	0.04974
5216.	0.4876	1.261E+4	0.05153
5218.	0.4858	1.261E+4	0.0493
5220.	0.4848	1.261E+4	0.05005
5222.	0.4846	1.262E+4	0.04983
5224.	0.4901	1.262E+4	0.04921
5226.	0.4849	1.262E+4	0.05005
5228.	0.491	1.262E+4	0.0472
5230.	0.4835	1.262E+4	0.05035
5232.	0.4922	1.263E+4	0.04888
5234.	0.4813	1.263E+4	0.04729
5236.	0.4879	1.263E+4	0.0491
5238.	0.4855	1.263E+4	0.05099
5240.	0.4836	1.263E+4	0.04793
5242.	0.4901	1.264E+4	0.04888
5244.	0.4801	1.264E+4	0.04835
5246.	0.4857	1.264E+4	0.05119
5248.	0.4837	1.264E+4	0.04983
5250.	0.4834	1.264E+4	0.0472
5252.	0.4833	1.265E+4	0.04845
5254.	0.481	1.265E+4	0.04888
5256.	0.4879	1.265E+4	0.04698
5258.	0.4822	1.265E+4	0.04677
5260.	0.482	1.265E+4	0.04867
5262.	0.4115	1.266E+4	0.04815
5264.	0.374	1.266E+4	0.04804
5266.	0.3831	1.266E+4	0.04974
5268.	0.3789	1.266E+4	0.0494
5270.	0.4114	1.266E+4	0.04835
5272.	0.4028	1.267E+4	0.04783
5274.	0.4856	1.267E+4	0.04709
5276.	0.487	1.267E+4	0.05162
5278.	0.4758	1.267E+4	0.05056
5280.	0.4814	1.267E+4	0.04783
5282.	0.4805	1.268E+4	0.04951
5284.	0.4865	1.268E+4	0.04646
5286.	0.4846	1.268E+4	0.04773
5288.	0.4823	1.268E+4	0.04888
5290.	0.4801	1.268E+4	0.04783
5292.	0.4826	1.269E+4	0.0491
5294.	0.4779	1.269E+4	0.05015
5296.	0.482	1.269E+4	0.04646
5298.	0.4813	1.269E+4	0.04698
5300.	0.4822	1.269E+4	0.04804
5302.	0.4852	1.27E+4	0.04867
5304.	0.4836	1.27E+4	0.0472
5306.	0.4831	1.27E+4	0.04582
5308.	0.4849	1.27E+4	0.0455
5310.	0.4833	1.27E+4	0.04666
5312.	0.483	1.271E+4	0.04571
5314.	0.4805	1.271E+4	0.04709
5316.	0.479	1.271E+4	0.04773
5318.	0.4768	1.271E+4	0.04614
5320.	0.4746	1.271E+4	0.04963
5322.	0.4808	1.272E+4	0.04571
5324.	0.4755	1.272E+4	0.04951
5326.	0.4791	1.272E+4	0.04741
5328.	0.4757	1.272E+4	0.05078
5330.	0.4756	1.272E+4	0.04614
5332.	0.4755	1.273E+4	0.04656
5334.	0.4809	1.273E+4	0.04729
5336.	0.478	1.273E+4	0.04444
5338.	0.4749	1.273E+4	0.04677
5340.	0.4816	1.273E+4	0.04603

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5342.	0.481	1.274E+4	0.04636
5344.	0.4812	1.274E+4	0.04656
5346.	0.4757	1.274E+4	0.04688
5348.	0.472	1.274E+4	0.04636
5350.	0.4798	1.274E+4	0.04656
5352.	0.4743	1.275E+4	0.0455
5354.	0.4795	1.275E+4	0.04773
5356.	0.4769	1.275E+4	0.04444
5358.	0.4704	1.275E+4	0.04636
5360.	0.4716	1.275E+4	0.04666
5362.	0.4764	1.276E+4	0.04666
5364.	0.4716	1.276E+4	0.04593
5366.	0.4774	1.276E+4	0.04487
5368.	0.4744	1.276E+4	0.04677
5370.	0.4796	1.276E+4	0.04487
5372.	0.4773	1.277E+4	0.04709
5374.	0.4749	1.277E+4	0.04636
5376.	0.4762	1.277E+4	0.04741
5378.	0.4728	1.277E+4	0.04487
5380.	0.4768	1.277E+4	0.04519
5382.	0.4742	1.278E+4	0.04688
5384.	0.4739	1.278E+4	0.04741
5386.	0.4726	1.278E+4	0.04498
5388.	0.474	1.278E+4	0.04677
5390.	0.4741	1.278E+4	0.04603
5392.	0.4764	1.279E+4	0.04677
5394.	0.4732	1.279E+4	0.04402
5396.	0.4712	1.279E+4	0.04762
5398.	0.4723	1.279E+4	0.04636
5400.	0.4741	1.279E+4	0.04582
5402.	0.4702	1.28E+4	0.04804
5404.	0.4738	1.28E+4	0.04392
5406.	0.4728	1.28E+4	0.04539
5408.	0.4702	1.28E+4	0.04467
5410.	0.4717	1.28E+4	0.04402
5412.	0.4699	1.281E+4	0.04519
5414.	0.4705	1.281E+4	0.04275
5416.	0.4732	1.281E+4	0.04402
5418.	0.4692	1.281E+4	0.04593
5420.	0.4711	1.281E+4	0.04467
5422.	0.4709	1.282E+4	0.04698
5424.	0.469	1.282E+4	0.04433
5426.	0.4717	1.282E+4	0.04433
5428.	0.4701	1.282E+4	0.04773
5430.	0.4686	1.282E+4	0.04444
5432.	0.4678	1.283E+4	0.04338
5434.	0.4705	1.283E+4	0.04297
5436.	0.4694	1.283E+4	0.04528
5438.	0.4677	1.283E+4	0.04677
5440.	0.4684	1.283E+4	0.04318
5442.	0.4683	1.284E+4	0.04371
5444.	0.4678	1.284E+4	0.04307
5446.	0.4684	1.284E+4	0.04646
5448.	0.4686	1.284E+4	0.04519
5450.	0.4663	1.284E+4	0.04498
5452.	0.4677	1.285E+4	0.04433
5454.	0.4667	1.285E+4	0.04224
5456.	0.4681	1.285E+4	0.04433
5458.	0.4645	1.285E+4	0.04328
5460.	0.4673	1.285E+4	0.04498
5462.	0.4683	1.286E+4	0.04381
5464.	0.465	1.286E+4	0.04203
5466.	0.4659	1.286E+4	0.04234
5468.	0.4657	1.286E+4	0.04182
5470.	0.4662	1.286E+4	0.04318
5472.	0.4654	1.287E+4	0.04454

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5474.	0.4637	1.287E+4	0.04287
5476.	0.4639	1.287E+4	0.04275
5478.	0.4653	1.287E+4	0.04413
5480.	0.4659	1.287E+4	0.04381
5482.	0.4665	1.288E+4	0.04603
5484.	0.4659	1.288E+4	0.04519
5486.	0.4622	1.288E+4	0.04424
5488.	0.463	1.288E+4	0.04371
5490.	0.4638	1.288E+4	0.04402
5492.	0.4628	1.289E+4	0.04359
5494.	0.463	1.289E+4	0.04498
5496.	0.4622	1.289E+4	0.04255
5498.	0.4623	1.289E+4	0.04265
5500.	0.4627	1.289E+4	0.04328
5502.	0.4637	1.29E+4	0.03916
5504.	0.4638	1.29E+4	0.04244
5506.	0.4609	1.29E+4	0.04287
5508.	0.4633	1.29E+4	0.04476
5510.	0.4609	1.29E+4	0.04318
5512.	0.4612	1.291E+4	0.04338
5514.	0.4603	1.291E+4	0.04275
5516.	0.4624	1.291E+4	0.04255
5518.	0.4594	1.291E+4	0.04203
5520.	0.4606	1.291E+4	0.04255
5522.	0.4638	1.292E+4	0.04561
5524.	0.4582	1.292E+4	0.04203
5526.	0.4584	1.292E+4	0.04149
5528.	0.4594	1.292E+4	0.04106
5530.	0.4594	1.292E+4	0.0399
5532.	0.4606	1.293E+4	0.04275
5534.	0.4619	1.293E+4	0.04192
5536.	0.4559	1.293E+4	0.04213
5538.	0.4588	1.293E+4	0.04074
5540.	0.4617	1.293E+4	0.0399
5542.	0.4582	1.294E+4	0.04213
5544.	0.4595	1.294E+4	0.03938
5546.	0.4574	1.294E+4	0.04074
5548.	0.4578	1.294E+4	0.04149
5550.	0.4583	1.294E+4	0.04128
5552.	0.4591	1.295E+4	0.04097
5554.	0.4557	1.295E+4	0.04149
5556.	0.4558	1.295E+4	0.04381
5558.	0.4575	1.295E+4	0.04106
5560.	0.4572	1.295E+4	0.04182
5562.	0.4562	1.296E+4	0.04348
5564.	0.4555	1.296E+4	0.0417
5566.	0.4564	1.296E+4	0.03916
5568.	0.4577	1.296E+4	0.04044
5570.	0.4547	1.296E+4	0.04086
5572.	0.4562	1.297E+4	0.04074
5574.	0.4545	1.297E+4	0.04234
5576.	0.4552	1.297E+4	0.03938
5578.	0.4555	1.297E+4	0.04044
5580.	0.4547	1.297E+4	0.04203
5582.	0.4546	1.298E+4	0.04044
5584.	0.4572	1.298E+4	0.04224
5586.	0.4539	1.298E+4	0.0399
5588.	0.4536	1.298E+4	0.04074
5590.	0.4565	1.298E+4	0.03926
5592.	0.4565	1.299E+4	0.04044
5594.	0.4524	1.299E+4	0.03969
5596.	0.4536	1.299E+4	0.03949
5598.	0.4537	1.299E+4	0.04244
5600.	0.4512	1.299E+4	0.03938
5602.	0.4535	1.3E+4	0.04244
5604.	0.4519	1.3E+4	0.04106

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5606.	0.4553	1.3E+4	0.04097
5608.	0.4529	1.3E+4	0.03916
5610.	0.4528	1.3E+4	0.04106
5612.	0.4527	1.301E+4	0.04012
5614.	0.4514	1.301E+4	0.04044
5616.	0.4504	1.301E+4	0.04055
5618.	0.4511	1.301E+4	0.03895
5620.	0.4521	1.301E+4	0.0399
5622.	0.4533	1.302E+4	0.0399
5624.	0.4508	1.302E+4	0.03686
5626.	0.4521	1.302E+4	0.03895
5628.	0.4505	1.302E+4	0.03791
5630.	0.4519	1.302E+4	0.04064
5632.	0.4515	1.303E+4	0.03843
5634.	0.4493	1.303E+4	0.04055
5636.	0.4487	1.303E+4	0.04034
5638.	0.4497	1.303E+4	0.03926
5640.	0.4483	1.303E+4	0.0398
5642.	0.4493	1.304E+4	0.03738
5644.	0.4486	1.304E+4	0.03865
5646.	0.4491	1.304E+4	0.03686
5648.	0.4499	1.304E+4	0.03895
5650.	0.4483	1.304E+4	0.04044
5652.	0.4477	1.305E+4	0.03907
5654.	0.4502	1.305E+4	0.03938
5656.	0.4489	1.305E+4	0.0416
5658.	0.4463	1.305E+4	0.03715
5660.	0.4458	1.305E+4	0.03916
5662.	0.4486	1.306E+4	0.0377
5664.	0.4446	1.306E+4	0.03728
5666.	0.4465	1.306E+4	0.03791
5668.	0.4482	1.306E+4	0.03885
5670.	0.449	1.306E+4	0.03916
5672.	0.4465	1.307E+4	0.0399
5674.	0.4482	1.307E+4	0.03969
5676.	0.4474	1.307E+4	0.03632
5678.	0.4463	1.307E+4	0.03728
5680.	0.4475	1.307E+4	0.03686
5682.	0.4449	1.308E+4	0.03738
5684.	0.4455	1.308E+4	0.03843
5686.	0.4443	1.308E+4	0.03568
5688.	0.4437	1.308E+4	0.03907
5690.	0.4448	1.308E+4	0.03548
5692.	0.4459	1.309E+4	0.03885
5694.	0.4445	1.309E+4	0.03811
5696.	0.4437	1.309E+4	0.03558
5698.	0.4465	1.309E+4	0.03843
5700.	0.4442	1.309E+4	0.03875
5702.	0.4428	1.31E+4	0.03642
5704.	0.4424	1.31E+4	0.0378
5706.	0.4421	1.31E+4	0.03474
5708.	0.444	1.31E+4	0.04044
5710.	0.4442	1.31E+4	0.03517
5712.	0.4422	1.311E+4	0.0398
5714.	0.4422	1.311E+4	0.03728
5716.	0.4448	1.311E+4	0.03715
5718.	0.4411	1.311E+4	0.038
5720.	0.4419	1.311E+4	0.03632
5722.	0.4425	1.312E+4	0.03938
5724.	0.4421	1.312E+4	0.03695
5726.	0.4431	1.312E+4	0.036
5728.	0.4421	1.312E+4	0.04044
5730.	0.441	1.312E+4	0.03715
5732.	0.4429	1.313E+4	0.03823
5734.	0.4428	1.313E+4	0.03843
5736.	0.4418	1.313E+4	0.03548

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5738.	0.441	1.313E+4	0.03757
5740.	0.4418	1.313E+4	0.03642
5742.	0.4416	1.314E+4	0.03875
5744.	0.4433	1.314E+4	0.03463
5746.	0.44	1.314E+4	0.03705
5748.	0.4421	1.314E+4	0.0361
5750.	0.4402	1.314E+4	0.03811
5752.	0.4392	1.315E+4	0.03474
5754.	0.4401	1.315E+4	0.03653
5756.	0.4399	1.315E+4	0.03367
5758.	0.4389	1.315E+4	0.03568
5760.	0.4405	1.315E+4	0.03517
5762.	0.4399	1.316E+4	0.03537
5764.	0.4406	1.316E+4	0.036
5766.	0.4386	1.316E+4	0.03885
5768.	0.4383	1.316E+4	0.03453
5770.	0.4369	1.316E+4	0.0361
5772.	0.4397	1.317E+4	0.03398
5774.	0.4416	1.317E+4	0.03589
5776.	0.4373	1.317E+4	0.03577
5778.	0.4372	1.317E+4	0.03474
5780.	0.4383	1.317E+4	0.03398
5782.	0.438	1.318E+4	0.03398
5784.	0.4376	1.318E+4	0.03577
5786.	0.4354	1.318E+4	0.0341
5788.	0.4394	1.318E+4	0.03506
5790.	0.436	1.318E+4	0.03589
5792.	0.4343	1.319E+4	0.03431
5794.	0.4344	1.319E+4	0.03474
5796.	0.4362	1.319E+4	0.03431
5798.	0.4357	1.319E+4	0.03494
5800.	0.4364	1.319E+4	0.03653
5802.	0.434	1.32E+4	0.03517
5804.	0.433	1.32E+4	0.03494
5806.	0.4349	1.32E+4	0.03853
5808.	0.4354	1.32E+4	0.0377
5810.	0.4351	1.32E+4	0.03442
5812.	0.4345	1.321E+4	0.03283
5814.	0.4321	1.321E+4	0.03283
5816.	0.4329	1.321E+4	0.03517
5818.	0.4325	1.321E+4	0.03442
5820.	0.4339	1.321E+4	0.03304
5822.	0.4331	1.322E+4	0.03494
5824.	0.4331	1.322E+4	0.03293
5826.	0.4333	1.322E+4	0.03263
5828.	0.4269	1.322E+4	0.03324
5830.	0.4264	1.322E+4	0.03315
5832.	0.4272	1.323E+4	0.03347
5834.	0.4329	1.323E+4	0.03241
5836.	0.4286	1.323E+4	0.03494
5838.	0.4356	1.323E+4	0.03517
5840.	0.4332	1.323E+4	0.03378
5842.	0.4327	1.324E+4	0.03642
5844.	0.4347	1.324E+4	0.03347
5846.	0.4203	1.324E+4	0.03073
5848.	0.4278	1.324E+4	0.03526
5850.	0.4263	1.324E+4	0.032
5852.	0.4321	1.325E+4	0.032
5854.	0.4244	1.325E+4	0.03146
5856.	0.434	1.325E+4	0.03453
5858.	0.4352	1.325E+4	0.03589
5860.	0.4314	1.325E+4	0.03009
5862.	0.425	1.326E+4	0.03263
5864.	0.4272	1.326E+4	0.03453
5866.	0.4295	1.326E+4	0.03358
5868.	0.4268	1.326E+4	0.03241

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
5870.	0.4309	1.326E+4	0.03304
5872.	0.4296	1.327E+4	0.03823
5874.	0.4229	1.327E+4	0.0322
5876.	0.4273	1.327E+4	0.03336
5878.	0.4272	1.327E+4	0.03442
5880.	0.4309	1.327E+4	0.03517
5882.	0.4275	1.328E+4	0.03283
5884.	0.4305	1.328E+4	0.03398
5886.	0.4151	1.328E+4	0.03114
5888.	0.4268	1.328E+4	0.03463
5890.	0.4294	1.328E+4	0.03251
5892.	0.4307	1.329E+4	0.03315
5894.	0.4283	1.329E+4	0.03367
5896.	0.4281	1.329E+4	0.03114
5898.	0.4235	1.329E+4	0.03442
5900.	0.4207	1.329E+4	0.03188
5902.	0.4289	1.33E+4	0.03431
5904.	0.4247	1.33E+4	0.03155
5906.	0.4266	1.33E+4	0.03293
5908.	0.4273	1.33E+4	0.0322
5910.	0.4207	1.33E+4	0.0322
5912.	0.4203	1.331E+4	0.03315
5914.	0.4237	1.331E+4	0.03283
5916.	0.4231	1.331E+4	0.03251
5918.	0.4226	1.331E+4	0.03336
5920.	0.4242	1.331E+4	0.03167
5922.	0.4194	1.332E+4	0.03304
5924.	0.4254	1.332E+4	0.03146
5926.	0.4108	1.332E+4	0.03241
5928.	0.4205	1.332E+4	0.0322
5930.	0.4182	1.332E+4	0.03019
5932.	0.4267	1.333E+4	0.03136
5934.	0.4221	1.333E+4	0.0303
5936.	0.4242	1.333E+4	0.03178
5938.	0.4192	1.333E+4	0.032
5940.	0.4243	1.333E+4	0.03229
5942.	0.4185	1.334E+4	0.03061
5944.	0.4234	1.334E+4	0.03104
5946.	0.4238	1.334E+4	0.03155
5948.	0.4208	1.334E+4	0.03146
5950.	0.4261	1.334E+4	0.03263
5952.	0.4211	1.335E+4	0.02892
5954.	0.421	1.335E+4	0.03188
5956.	0.4176	1.335E+4	0.03019
5958.	0.4251	1.335E+4	0.03263
5960.	0.4222	1.335E+4	0.02934
5962.	0.4198	1.336E+4	0.03178
5964.	0.4235	1.336E+4	0.03367
5966.	0.4086	1.336E+4	0.03009
5968.	0.4166	1.336E+4	0.03125
5970.	0.4152	1.336E+4	0.03073
5972.	0.4244	1.337E+4	0.02967
5974.	0.4201	1.337E+4	0.03073
5976.	0.4162	1.337E+4	0.02977
5978.	0.4188	1.337E+4	0.02977
5980.	0.4154	1.337E+4	0.03293
5982.	0.4147	1.338E+4	0.03146
5984.	0.4203	1.338E+4	0.0303
5986.	0.4203	1.338E+4	0.03155
5988.	0.4203	1.338E+4	0.03188
5990.	0.4223	1.338E+4	0.02967
5992.	0.4237	1.339E+4	0.0304
5994.	0.4195	1.339E+4	0.03273
5996.	0.4158	1.339E+4	0.03093
5998.	0.4135	1.339E+4	0.03125
6000.	0.4185	1.339E+4	0.03389

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6002.	0.4197	1.34E+4	0.03093
6004.	0.4195	1.34E+4	0.02934
6006.	0.419	1.34E+4	0.02967
6008.	0.4162	1.34E+4	0.03209
6010.	0.419	1.34E+4	0.0303
6012.	0.418	1.341E+4	0.03114
6014.	0.4179	1.341E+4	0.0304
6016.	0.4171	1.341E+4	0.03146
6018.	0.4166	1.341E+4	0.02756
6020.	0.4165	1.341E+4	0.02945
6022.	0.4143	1.342E+4	0.03019
6024.	0.4164	1.342E+4	0.03263
6026.	0.4165	1.342E+4	0.03093
6028.	0.4161	1.342E+4	0.02892
6030.	0.4146	1.342E+4	0.03125
6032.	0.4143	1.343E+4	0.02924
6034.	0.4157	1.343E+4	0.02967
6036.	0.4156	1.343E+4	0.02989
6038.	0.4149	1.343E+4	0.02883
6040.	0.4163	1.343E+4	0.02967
6042.	0.4153	1.344E+4	0.03052
6044.	0.4114	1.344E+4	0.02999
6046.	0.416	1.344E+4	0.02892
6048.	0.4138	1.344E+4	0.0285
6050.	0.4177	1.344E+4	0.02756
6052.	0.4127	1.345E+4	0.02746
6054.	0.4133	1.345E+4	0.03453
6056.	0.4131	1.345E+4	0.02788
6058.	0.4136	1.345E+4	0.02797
6060.	0.4142	1.345E+4	0.02788
6062.	0.4104	1.346E+4	0.02724
6064.	0.4153	1.346E+4	0.02883
6066.	0.4168	1.346E+4	0.02797
6068.	0.4128	1.346E+4	0.02977
6070.	0.4126	1.346E+4	0.02681
6072.	0.4137	1.347E+4	0.02756
6074.	0.4115	1.347E+4	0.02945
6076.	0.4116	1.347E+4	0.02735
6078.	0.4121	1.347E+4	0.02756
6080.	0.4111	1.347E+4	0.02829
6082.	0.4133	1.348E+4	0.02924
6084.	0.4122	1.348E+4	0.03084
6086.	0.4085	1.348E+4	0.02829
6088.	0.4109	1.348E+4	0.0303
6090.	0.4117	1.348E+4	0.03146
6092.	0.409	1.349E+4	0.02839
6094.	0.4085	1.349E+4	0.0304
6096.	0.4096	1.349E+4	0.02892
6098.	0.4092	1.349E+4	0.02288
6100.	0.411	1.349E+4	0.02693
6102.	0.4094	1.35E+4	0.02777
6104.	0.4076	1.35E+4	0.02756
6106.	0.4083	1.35E+4	0.02977
6108.	0.4099	1.35E+4	0.0304
6110.	0.4096	1.35E+4	0.02702
6112.	0.4076	1.351E+4	0.02892
6114.	0.4063	1.351E+4	0.02766
6116.	0.4076	1.351E+4	0.02788
6118.	0.4091	1.351E+4	0.02871
6120.	0.4068	1.351E+4	0.0285
6122.	0.4064	1.352E+4	0.02724
6124.	0.4064	1.352E+4	0.02766
6126.	0.4064	1.352E+4	0.02586
6128.	0.4098	1.352E+4	0.02756
6130.	0.41	1.352E+4	0.02819
6132.	0.4069	1.353E+4	0.02788

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6134.	0.4094	1.353E+4	0.02724
6136.	0.4062	1.353E+4	0.02819
6138.	0.4057	1.353E+4	0.0304
6140.	0.407	1.353E+4	0.02945
6142.	0.4052	1.354E+4	0.02956
6144.	0.4069	1.354E+4	0.02702
6146.	0.4074	1.354E+4	0.02714
6148.	0.4067	1.354E+4	0.02839
6150.	0.405	1.354E+4	0.02619
6152.	0.4071	1.355E+4	0.02619
6154.	0.4055	1.355E+4	0.02681
6156.	0.4023	1.355E+4	0.02245
6158.	0.4052	1.355E+4	0.02439
6160.	0.4045	1.355E+4	0.02819
6162.	0.4028	1.356E+4	0.0266
6164.	0.4032	1.356E+4	0.02629
6166.	0.397	1.356E+4	0.02904
6168.	0.4053	1.356E+4	0.02607
6170.	0.4018	1.356E+4	0.02746
6172.	0.4029	1.357E+4	0.02693
6174.	0.4031	1.357E+4	0.0265
6176.	0.4063	1.357E+4	0.02714
6178.	0.3986	1.357E+4	0.02439
6180.	0.4044	1.357E+4	0.02491
6182.	0.402	1.358E+4	0.02693
6184.	0.4014	1.358E+4	0.0265
6186.	0.4028	1.358E+4	0.02702
6188.	0.4031	1.358E+4	0.02681
6190.	0.4033	1.358E+4	0.02883
6192.	0.402	1.359E+4	0.03114
6194.	0.4029	1.359E+4	0.02513
6196.	0.3999	1.359E+4	0.02554
6198.	0.4018	1.359E+4	0.02545
6200.	0.402	1.359E+4	0.02724
6202.	0.4027	1.36E+4	0.0247
6204.	0.401	1.36E+4	0.02756
6206.	0.4004	1.36E+4	0.02607
6208.	0.4016	1.36E+4	0.02597
6210.	0.3988	1.36E+4	0.02491
6212.	0.399	1.361E+4	0.0286
6214.	0.4005	1.361E+4	0.02597
6216.	0.3995	1.361E+4	0.02714
6218.	0.4005	1.361E+4	0.0248
6220.	0.3997	1.361E+4	0.02586
6222.	0.3991	1.362E+4	0.02491
6224.	0.4002	1.362E+4	0.02343
6226.	0.3983	1.362E+4	0.02111
6228.	0.3988	1.362E+4	0.02427
6230.	0.3987	1.362E+4	0.02766
6232.	0.3972	1.363E+4	0.02491
6234.	0.3998	1.363E+4	0.02535
6236.	0.4017	1.363E+4	0.02545
6238.	0.3971	1.363E+4	0.02334
6240.	0.3974	1.363E+4	0.02459
6242.	0.3973	1.364E+4	0.02535
6244.	0.3992	1.364E+4	0.02607
6246.	0.3959	1.364E+4	0.02449
6248.	0.3985	1.364E+4	0.02693
6250.	0.3954	1.364E+4	0.0266
6252.	0.3976	1.365E+4	0.0226
6254.	0.3966	1.365E+4	0.02459
6256.	0.397	1.365E+4	0.02586
6258.	0.3957	1.365E+4	0.02681
6260.	0.3951	1.365E+4	0.0265
6262.	0.3973	1.366E+4	0.02513
6264.	0.396	1.366E+4	0.0247

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6266.	0.3953	1.366E+4	0.02491
6268.	0.3946	1.366E+4	0.0247
6270.	0.3977	1.366E+4	0.02228
6272.	0.3935	1.367E+4	0.02639
6274.	0.3952	1.367E+4	0.02439
6276.	0.3951	1.367E+4	0.02554
6278.	0.3935	1.367E+4	0.02607
6280.	0.3916	1.367E+4	0.02427
6282.	0.3926	1.368E+4	0.02396
6284.	0.3965	1.368E+4	0.02503
6286.	0.3928	1.368E+4	0.02165
6288.	0.3919	1.368E+4	0.02459
6290.	0.3951	1.368E+4	0.02671
6292.	0.3963	1.369E+4	0.02535
6294.	0.3974	1.369E+4	0.02639
6296.	0.3938	1.369E+4	0.02343
6298.	0.394	1.369E+4	0.02427
6300.	0.3956	1.369E+4	0.0226
6302.	0.391	1.37E+4	0.02228
6304.	0.3921	1.37E+4	0.02407
6306.	0.3919	1.37E+4	0.02165
6308.	0.3908	1.37E+4	0.0247
6310.	0.3914	1.37E+4	0.0248
6312.	0.392	1.371E+4	0.02365
6314.	0.3907	1.371E+4	0.02365
6316.	0.3905	1.371E+4	0.0247
6318.	0.3928	1.371E+4	0.02281
6320.	0.3937	1.371E+4	0.0227
6322.	0.3892	1.372E+4	0.02281
6324.	0.3897	1.372E+4	0.02323
6326.	0.3907	1.372E+4	0.02186
6328.	0.3924	1.372E+4	0.02396
6330.	0.3909	1.372E+4	0.01964
6332.	0.3926	1.373E+4	0.02407
6334.	0.392	1.373E+4	0.02524
6336.	0.388	1.373E+4	0.01974
6338.	0.3899	1.373E+4	0.02006
6340.	0.3882	1.373E+4	0.0226
6342.	0.3909	1.374E+4	0.0226
6344.	0.3895	1.374E+4	0.02186
6346.	0.3908	1.374E+4	0.02491
6348.	0.3885	1.374E+4	0.01995
6350.	0.3918	1.374E+4	0.02416
6352.	0.3889	1.375E+4	0.02186
6354.	0.3905	1.375E+4	0.02355
6356.	0.3899	1.375E+4	0.02143
6358.	0.3904	1.375E+4	0.02576
6360.	0.3893	1.375E+4	0.0247
6362.	0.3886	1.376E+4	0.021
6364.	0.3863	1.376E+4	0.02334
6366.	0.3897	1.376E+4	0.02165
6368.	0.3875	1.376E+4	0.02143
6370.	0.3888	1.376E+4	0.02165
6372.	0.3868	1.377E+4	0.02132
6374.	0.3864	1.377E+4	0.02206
6376.	0.3855	1.377E+4	0.02323
6378.	0.3839	1.377E+4	0.02069
6380.	0.3905	1.377E+4	0.02228
6382.	0.3863	1.378E+4	0.02228
6384.	0.3869	1.378E+4	0.02132
6386.	0.3888	1.378E+4	0.0227
6388.	0.3843	1.378E+4	0.02153
6390.	0.3838	1.378E+4	0.02459
6392.	0.3846	1.379E+4	0.0209
6394.	0.3835	1.379E+4	0.02165
6396.	0.3863	1.379E+4	0.02228

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6398.	0.3861	1.379E+4	0.01995
6400.	0.3854	1.379E+4	0.0226
6402.	0.3852	1.38E+4	0.02111
6404.	0.3875	1.38E+4	0.01964
6406.	0.3857	1.38E+4	0.02238
6408.	0.3873	1.38E+4	0.02355
6410.	0.3839	1.38E+4	0.01964
6412.	0.3853	1.381E+4	0.0226
6414.	0.3813	1.381E+4	0.02006
6416.	0.3829	1.381E+4	0.02143
6418.	0.3829	1.381E+4	0.01857
6420.	0.3818	1.381E+4	0.02006
6422.	0.3859	1.382E+4	0.01944
6424.	0.3829	1.382E+4	0.02121
6426.	0.384	1.382E+4	0.01974
6428.	0.3837	1.382E+4	0.01944
6430.	0.382	1.382E+4	0.01974
6432.	0.3761	1.383E+4	0.02048
6434.	0.3695	1.383E+4	0.0188
6436.	0.3848	1.383E+4	0.02026
6438.	0.3744	1.383E+4	0.02334
6440.	0.3845	1.383E+4	0.01359
6442.	0.3799	1.384E+4	0.01837
6444.	0.381	1.384E+4	0.02238
6446.	0.3796	1.384E+4	0.02153
6448.	0.3823	1.384E+4	0.02069
6450.	0.3842	1.384E+4	0.0188
6452.	0.3836	1.385E+4	0.02016
6454.	0.3795	1.385E+4	0.01857
6456.	0.3801	1.385E+4	0.02365
6458.	0.3769	1.385E+4	0.01773
6460.	0.3754	1.385E+4	0.02355
6462.	0.3773	1.386E+4	0.0188
6464.	0.3816	1.386E+4	0.01826
6466.	0.379	1.386E+4	0.01985
6468.	0.3786	1.386E+4	0.0188
6470.	0.3828	1.386E+4	0.02016
6472.	0.3739	1.387E+4	0.01931
6474.	0.383	1.387E+4	0.01953
6476.	0.3763	1.387E+4	0.02175
6478.	0.3759	1.387E+4	0.02111
6480.	0.3794	1.387E+4	0.01806
6482.	0.3771	1.388E+4	0.01816
6484.	0.3813	1.388E+4	0.0208
6486.	0.3815	1.388E+4	0.01837
6488.	0.373	1.388E+4	0.01901
6490.	0.3792	1.388E+4	0.01964
6492.	0.3783	1.389E+4	0.01953
6494.	0.3726	1.389E+4	0.01826
6496.	0.3781	1.389E+4	0.02121
6498.	0.3725	1.389E+4	0.01891
6500.	0.3722	1.389E+4	0.0188
6502.	0.3802	1.39E+4	0.01922
6504.	0.3794	1.39E+4	0.02249
6506.	0.3766	1.39E+4	0.01646
6508.	0.3793	1.39E+4	0.02016
6510.	0.3787	1.39E+4	0.01837
6512.	0.3745	1.391E+4	0.01964
6514.	0.3789	1.391E+4	0.01604
6516.	0.3726	1.391E+4	0.01837
6518.	0.3758	1.391E+4	0.01689
6520.	0.3721	1.391E+4	0.01868
6522.	0.3751	1.392E+4	0.01911
6524.	0.3763	1.392E+4	0.0226
6526.	0.3736	1.392E+4	0.01857
6528.	0.3723	1.392E+4	0.01868

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6530.	0.3689	1.392E+4	0.01764
6532.	0.3773	1.393E+4	0.01689
6534.	0.3749	1.393E+4	0.01773
6536.	0.3735	1.393E+4	0.01922
6538.	0.3743	1.393E+4	0.01551
6540.	0.3775	1.393E+4	0.01826
6542.	0.3749	1.394E+4	0.01931
6544.	0.3757	1.394E+4	0.01922
6546.	0.3726	1.394E+4	0.0172
6548.	0.3713	1.394E+4	0.02069
6550.	0.3745	1.394E+4	0.0172
6552.	0.3681	1.395E+4	0.01699
6554.	0.3721	1.395E+4	0.01953
6556.	0.3706	1.395E+4	0.01572
6558.	0.3688	1.395E+4	0.01857
6560.	0.3756	1.395E+4	0.01689
6562.	0.372	1.396E+4	0.01467
6564.	0.3751	1.396E+4	0.01563
6566.	0.3732	1.396E+4	0.01931
6568.	0.3685	1.396E+4	0.01793
6570.	0.3662	1.396E+4	0.01764
6572.	0.3759	1.397E+4	0.01944
6574.	0.3638	1.397E+4	0.01944
6576.	0.3692	1.397E+4	0.01625
6578.	0.3681	1.397E+4	0.01668
6580.	0.3722	1.397E+4	0.0172
6582.	0.3738	1.398E+4	0.01499
6584.	0.3744	1.398E+4	0.01489
6586.	0.3688	1.398E+4	0.01985
6588.	0.3683	1.398E+4	0.01985
6590.	0.3663	1.398E+4	0.01531
6592.	0.3659	1.399E+4	0.01509
6594.	0.3728	1.399E+4	0.01764
6596.	0.3689	1.399E+4	0.01489
6598.	0.3663	1.399E+4	0.01891
6600.	0.3715	1.399E+4	0.01551
6602.	0.3718	1.4E+4	0.01931
6604.	0.3707	1.4E+4	0.0152
6606.	0.3692	1.4E+4	0.01646
6608.	0.3647	1.4E+4	0.01616
6610.	0.3647	1.4E+4	0.01478
6612.	0.3708	1.401E+4	0.0172
6614.	0.3639	1.401E+4	0.01625
6616.	0.3688	1.401E+4	0.0172
6618.	0.3598	1.401E+4	0.01604
6620.	0.3707	1.401E+4	0.01678
6622.	0.3657	1.402E+4	0.01657
6624.	0.3666	1.402E+4	0.01457
6626.	0.3679	1.402E+4	0.01773
6628.	0.3601	1.402E+4	0.01732
6630.	0.3685	1.402E+4	0.01604
6632.	0.3692	1.403E+4	0.01415
6634.	0.3696	1.403E+4	0.01753
6636.	0.3695	1.403E+4	0.01584
6638.	0.3656	1.403E+4	0.01415
6640.	0.367	1.403E+4	0.01542
6642.	0.3669	1.404E+4	0.01383
6644.	0.3627	1.404E+4	0.01826
6646.	0.3658	1.404E+4	0.01616
6648.	0.3647	1.404E+4	0.01542
6650.	0.3701	1.404E+4	0.01764
6652.	0.3655	1.405E+4	0.01542
6654.	0.3639	1.405E+4	0.01299
6656.	0.3659	1.405E+4	0.01551
6658.	0.3646	1.405E+4	0.01404
6660.	0.3666	1.405E+4	0.01636

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6662.	0.3679	1.406E+4	0.01699
6664.	0.3675	1.406E+4	0.0133
6666.	0.3643	1.406E+4	0.01625
6668.	0.3655	1.406E+4	0.01404
6670.	0.3679	1.406E+4	0.01636
6672.	0.3642	1.407E+4	0.01689
6674.	0.3645	1.407E+4	0.01625
6676.	0.365	1.407E+4	0.01499
6678.	0.3659	1.407E+4	0.01351
6680.	0.3656	1.407E+4	0.01551
6682.	0.3644	1.408E+4	0.0152
6684.	0.3658	1.408E+4	0.01816
6686.	0.3588	1.408E+4	0.01319
6688.	0.362	1.408E+4	0.01616
6690.	0.3676	1.408E+4	0.01447
6692.	0.361	1.409E+4	0.01447
6694.	0.3644	1.409E+4	0.01308
6696.	0.3631	1.409E+4	0.01563
6698.	0.3626	1.409E+4	0.01531
6700.	0.3604	1.409E+4	0.01509
6702.	0.3626	1.41E+4	0.01457
6704.	0.3638	1.41E+4	0.01393
6706.	0.3604	1.41E+4	0.01551
6708.	0.3623	1.41E+4	0.01509
6710.	0.3592	1.41E+4	0.01372
6712.	0.3636	1.411E+4	0.01551
6714.	0.3609	1.411E+4	0.01299
6716.	0.3621	1.411E+4	0.01299
6718.	0.36	1.411E+4	0.01404
6720.	0.3627	1.411E+4	0.01616
6722.	0.3589	1.412E+4	0.009039
6724.	0.36	1.412E+4	0.01342
6726.	0.3595	1.412E+4	0.01415
6728.	0.3587	1.412E+4	0.01204
6730.	0.3593	1.412E+4	0.004604
6732.	0.3599	1.413E+4	0.01223
6734.	0.3618	1.413E+4	0.0133
6736.	0.3609	1.413E+4	0.01256
6738.	0.3599	1.413E+4	0.01277
6740.	0.36	1.413E+4	0.01467
6742.	0.3593	1.414E+4	0.01764
6744.	0.3581	1.414E+4	0.01489
6746.	0.3572	1.414E+4	0.01266
6748.	0.3588	1.414E+4	0.01213
6750.	0.3589	1.414E+4	0.01182
6752.	0.3587	1.415E+4	0.01447
6754.	0.3591	1.415E+4	0.01542
6756.	0.3581	1.415E+4	0.01319
6758.	0.3575	1.415E+4	0.01266
6760.	0.3604	1.415E+4	0.01404
6762.	0.3571	1.416E+4	0.01246
6764.	0.3585	1.416E+4	0.01077
6766.	0.3572	1.416E+4	0.01246
6768.	0.3553	1.416E+4	0.01288
6770.	0.3618	1.416E+4	0.01223
6772.	0.3561	1.417E+4	0.01256
6774.	0.3572	1.417E+4	0.01467
6776.	0.3573	1.417E+4	0.01299
6778.	0.3569	1.417E+4	0.0133
6780.	0.3572	1.417E+4	0.0116
6782.	0.3565	1.418E+4	0.007465
6784.	0.3569	1.418E+4	0.01172
6786.	0.358	1.418E+4	0.01361
6788.	0.3553	1.418E+4	0.01342
6790.	0.3517	1.418E+4	0.01404
6792.	0.3535	1.419E+4	0.01447

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6794.	0.3522	1.419E+4	0.01035
6796.	0.3552	1.419E+4	0.0115
6798.	0.3573	1.419E+4	0.01235
6800.	0.3561	1.419E+4	0.0133
6802.	0.3543	1.42E+4	0.01361
6804.	0.3555	1.42E+4	0.01415
6806.	0.3569	1.42E+4	0.01342
6808.	0.3545	1.42E+4	0.01077
6810.	0.3523	1.42E+4	0.01351
6812.	0.3543	1.421E+4	0.01256
6814.	0.3541	1.421E+4	0.01256
6816.	0.3539	1.421E+4	0.01246
6818.	0.3535	1.421E+4	0.01372
6820.	0.352	1.421E+4	0.01551
6822.	0.3533	1.422E+4	0.01246
6824.	0.3509	1.422E+4	0.01235
6826.	0.3522	1.422E+4	0.0115
6828.	0.3538	1.422E+4	0.01172
6830.	0.3521	1.422E+4	0.01266
6832.	0.3543	1.423E+4	0.01045
6834.	0.3538	1.423E+4	0.01013
6836.	0.3506	1.423E+4	0.01086
6838.	0.3534	1.423E+4	0.01489
6840.	0.3528	1.423E+4	0.009821
6842.	0.3505	1.424E+4	0.01223
6844.	0.3503	1.424E+4	0.01246
6846.	0.3523	1.424E+4	0.01277
6848.	0.3516	1.424E+4	0.008753
6850.	0.3504	1.424E+4	0.01277
6852.	0.3521	1.425E+4	0.0115
6854.	0.3497	1.425E+4	0.01246
6856.	0.3501	1.425E+4	0.01055
6858.	0.3502	1.425E+4	0.009821
6860.	0.3497	1.425E+4	0.01256
6862.	0.3502	1.426E+4	0.008118
6864.	0.3496	1.426E+4	0.008644
6866.	0.3487	1.426E+4	0.01204
6868.	0.3497	1.426E+4	0.008013
6870.	0.347	1.426E+4	0.01204
6872.	0.3492	1.427E+4	0.009388
6874.	0.3482	1.427E+4	0.01098
6876.	0.3501	1.427E+4	0.01213
6878.	0.3475	1.427E+4	0.01035
6880.	0.348	1.427E+4	0.01004
6882.	0.3491	1.428E+4	0.01086
6884.	0.3488	1.428E+4	0.01098
6886.	0.3494	1.428E+4	0.007809
6888.	0.3498	1.428E+4	0.0114
6890.	0.3507	1.428E+4	0.01108
6892.	0.3486	1.429E+4	0.01342
6894.	0.35	1.429E+4	0.0114
6896.	0.3471	1.429E+4	0.01013
6898.	0.3467	1.429E+4	0.01067
6900.	0.3526	1.429E+4	0.00971
6902.	0.3476	1.43E+4	0.01204
6904.	0.3457	1.43E+4	0.007696
6906.	0.3466	1.43E+4	0.01108
6908.	0.3469	1.43E+4	0.00897
6910.	0.3476	1.43E+4	0.00345
6912.	0.348	1.431E+4	0.008238
6914.	0.3491	1.431E+4	0.01172
6916.	0.3466	1.431E+4	0.008118
6918.	0.346	1.431E+4	0.007603
6920.	0.3441	1.431E+4	0.01077
6922.	0.3458	1.432E+4	0.01086
6924.	0.3477	1.432E+4	0.009388

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
6926.	0.3468	1.432E+4	0.009388
6928.	0.3471	1.432E+4	0.0112
6930.	0.3456	1.432E+4	0.009182
6932.	0.3456	1.433E+4	0.00844
6934.	0.3471	1.433E+4	0.009075
6936.	0.3446	1.433E+4	0.009924
6938.	0.3435	1.433E+4	0.01045
6940.	0.3446	1.433E+4	0.00897
6942.	0.3435	1.434E+4	0.002699
6944.	0.3456	1.434E+4	0.01192
6946.	0.3457	1.434E+4	0.01108
6948.	0.3445	1.434E+4	0.01024
6950.	0.3441	1.434E+4	0.00897
6952.	0.3459	1.435E+4	0.008118
6954.	0.3422	1.435E+4	0.008238
6956.	0.3455	1.435E+4	0.002506
6958.	0.3425	1.435E+4	0.009292
6960.	0.3426	1.435E+4	0.008238
6962.	0.342	1.436E+4	0.01024
6964.	0.3426	1.436E+4	0.01013
6966.	0.3459	1.436E+4	0.007286
6968.	0.3428	1.436E+4	0.008013
6970.	0.3427	1.436E+4	0.008869
6972.	0.3426	1.437E+4	0.00844
6974.	0.3437	1.437E+4	0.006655
6976.	0.3419	1.437E+4	0.007603
6978.	0.3405	1.437E+4	0.008118
6980.	0.3427	1.437E+4	0.009388
6982.	0.3418	1.438E+4	0.006763
6984.	0.3435	1.438E+4	0.007696
6986.	0.3426	1.438E+4	0.006964
6988.	0.3404	1.438E+4	0.007393
6990.	0.3428	1.438E+4	0.01024
6992.	0.342	1.439E+4	0.007809
6994.	0.3406	1.439E+4	0.007696
6996.	0.3413	1.439E+4	0.008644
6998.	0.3433	1.439E+4	0.009182
7000.	0.3423	1.439E+4	0.009292
7002.	0.3405	1.44E+4	0.0058
7004.	0.3417	1.44E+4	0.007809
7006.	0.3396	1.44E+4	0.008118
7008.	0.3427	1.44E+4	0.006222
7010.	0.341	1.44E+4	0.006126
7012.	0.3388	1.441E+4	0.008013
7014.	0.3415	1.441E+4	0.008335
7016.	0.3406	1.441E+4	0.008118
7018.	0.3377	1.441E+4	0.009388
7020.	0.3402	1.441E+4	0.006328
7022.	0.3402	1.442E+4	0.008644
7024.	0.3396	1.442E+4	0.004951
7026.	0.3398	1.442E+4	0.006548
7028.	0.3402	1.442E+4	0.007809
7030.	0.3388	1.442E+4	0.0115
7032.	0.3369	1.443E+4	0.007286
7034.	0.34	1.443E+4	0.006655
7036.	0.3383	1.443E+4	0.006866
7038.	0.3372	1.443E+4	0.006328
7040.	0.3401	1.443E+4	0.006328
7042.	0.3385	1.444E+4	0.007183
7044.	0.3373	1.444E+4	0.006445
7046.	0.3373	1.444E+4	0.006016
7048.	0.3377	1.444E+4	0.008869
7050.	0.3366	1.444E+4	0.007809
7052.	0.3393	1.445E+4	0.007183
7054.	0.3365	1.445E+4	0.006964
7056.	0.339	1.445E+4	0.008556

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
7058.	0.3377	1.445E+4	0.005487
7060.	0.337	1.445E+4	0.007076
7062.	0.3352	1.446E+4	0.006964
7064.	0.3369	1.446E+4	0.0058
7066.	0.3394	1.446E+4	0.006126
7068.	0.3343	1.446E+4	0.007696
7070.	0.3358	1.446E+4	0.006964
7072.	0.337	1.447E+4	0.008118
7074.	0.337	1.447E+4	0.007183
7076.	0.3374	1.447E+4	0.007183
7078.	0.3338	1.447E+4	0.004326
7080.	0.3331	1.447E+4	0.006328
7082.	0.3369	1.448E+4	0.006016
7084.	0.3338	1.448E+4	0.005586
7086.	0.3348	1.448E+4	0.005058
7088.	0.3333	1.448E+4	0.004951
7090.	0.334	1.448E+4	0.005384
7092.	0.3345	1.449E+4	0.004013
7094.	0.3348	1.449E+4	0.005586
7096.	0.3327	1.449E+4	0.004755
7098.	0.335	1.449E+4	0.004951
7100.	0.3353	1.449E+4	0.007696
7102.	0.3324	1.45E+4	0.004534
7104.	0.3336	1.45E+4	0.005487
7106.	0.3326	1.45E+4	0.005699
7108.	0.3329	1.45E+4	0.007286
7110.	0.3325	1.45E+4	0.007286
7112.	0.3341	1.451E+4	0.005169
7114.	0.3322	1.451E+4	0.004755
7116.	0.3342	1.451E+4	0.006866
7118.	0.3317	1.451E+4	0.007603
7120.	0.334	1.451E+4	0.005699
7122.	0.3342	1.452E+4	0.008869
7124.	0.3314	1.452E+4	0.005384
7126.	0.3362	1.452E+4	0.007286
7128.	0.334	1.452E+4	0.005281
7130.	0.3313	1.452E+4	0.004213
7132.	0.3289	1.453E+4	0.005058
7134.	0.3323	1.453E+4	0.006328
7136.	0.3327	1.453E+4	0.005384
7138.	0.3299	1.453E+4	0.0075
7140.	0.3308	1.453E+4	0.005909
7142.	0.334	1.454E+4	0.005169
7144.	0.3311	1.454E+4	0.007286
7146.	0.3299	1.454E+4	0.003271
7148.	0.3306	1.454E+4	0.005909
7150.	0.3303	1.454E+4	0.005058
7152.	0.3302	1.455E+4	0.005281
7154.	0.3314	1.455E+4	0.0075
7156.	0.328	1.455E+4	0.004629
7158.	0.3289	1.455E+4	0.005586
7160.	0.3298	1.455E+4	0.006328
7162.	0.331	1.456E+4	0.005384
7164.	0.329	1.456E+4	0.005487
7166.	0.3297	1.456E+4	0.006763
7168.	0.3295	1.456E+4	0.003898
7170.	0.3312	1.456E+4	0.005909
7172.	0.3274	1.457E+4	0.004326
7174.	0.3286	1.457E+4	0.004326
7176.	0.329	1.457E+4	0.004846
7178.	0.3302	1.457E+4	0.006655
7180.	0.3287	1.457E+4	0.006222
7182.	0.3272	1.458E+4	0.004213
7184.	0.3274	1.458E+4	0.006445
7186.	0.3277	1.458E+4	0.006126
7188.	0.3304	1.458E+4	0.0058

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
7190.	0.327	1.458E+4	0.005058
7192.	0.3284	1.459E+4	0.005058
7194.	0.3266	1.459E+4	0.004846
7196.	0.3269	1.459E+4	0.004629
7198.	0.3276	1.459E+4	0.005058
7200.	0.3281	1.459E+4	0.002428
7202.	0.3251	1.46E+4	0.004534
7204.	0.328	1.46E+4	0.003694
7206.	0.3242	1.46E+4	0.004013
7208.	0.3253	1.46E+4	0.002968
7210.	0.3275	1.46E+4	0.003168
7212.	0.3272	1.461E+4	0.002008
7214.	0.3275	1.461E+4	0.002968
7216.	0.326	1.461E+4	0.003479
7218.	0.3239	1.461E+4	0.002968
7220.	0.3258	1.461E+4	0.001472
7222.	0.3276	1.462E+4	0.002428
7224.	0.3273	1.462E+4	0.001169
7226.	0.3255	1.462E+4	0.004436
7228.	0.3261	1.462E+4	0.003591
7230.	0.3266	1.462E+4	0.003694
7232.	0.3245	1.463E+4	0.000524
7234.	0.324	1.463E+4	0.001169
7236.	0.3274	1.463E+4	0.006222
7238.	0.3221	1.463E+4	0.003898
7240.	0.3236	1.463E+4	0.002643
7242.	0.3237	1.464E+4	0.005058
7244.	0.3228	1.464E+4	0.003591
7246.	0.3247	1.464E+4	0.001472
7248.	0.3249	1.464E+4	0.000215
7250.	0.3257	1.464E+4	0.002968
7252.	0.3245	1.465E+4	0.004846
7254.	0.3205	1.465E+4	0.002743
7256.	0.3229	1.465E+4	0.003479
7258.	0.3231	1.465E+4	0.004436
7260.	0.3217	1.465E+4	0.002846
7262.	0.3228	1.466E+4	0.003591
7264.	0.3235	1.466E+4	0.005384
7266.	0.3229	1.466E+4	0.003479
7268.	0.3229	1.466E+4	0.002214
7270.	0.3234	1.466E+4	0.004436
7272.	0.3216	1.467E+4	0.002531
7274.	0.3215	1.467E+4	0.000309
7276.	0.3219	1.467E+4	0.005058
7278.	0.3179	1.467E+4	0.002531
7280.	0.3216	1.467E+4	-0.003405
7282.	0.3212	1.468E+4	0.001911
7284.	0.3207	1.468E+4	0.003271
7286.	0.32	1.468E+4	0.002531
7288.	0.321	1.468E+4	0.004951
7290.	0.3195	1.468E+4	0.003168
7292.	0.3213	1.469E+4	0.003479
7294.	0.3203	1.469E+4	9.5E-5
7296.	0.322	1.469E+4	0.001169
7298.	0.3208	1.469E+4	0.00106
7300.	0.3187	1.469E+4	0.003065
7302.	0.32	1.47E+4	0.003694
7304.	0.3218	1.47E+4	0.001366
7306.	0.3196	1.47E+4	0.003168
7308.	0.3205	1.47E+4	0.001366
7310.	0.3179	1.47E+4	0.003694
7312.	0.3182	1.471E+4	0.004951
7314.	0.3171	1.471E+4	0.004326
7316.	0.3193	1.471E+4	0.002531
7318.	0.3176	1.471E+4	0.002968
7320.	0.3203	1.471E+4	0.001579

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
7322.	0.3195	1.472E+4	0.003801
7324.	0.3193	1.472E+4	0.000957
7326.	0.318	1.472E+4	0.001911
7328.	0.3197	1.472E+4	0.002214
7330.	0.3161	1.472E+4	-0.000111
7332.	0.3199	1.473E+4	0.001579
7334.	0.318	1.473E+4	0.001366
7336.	0.3174	1.473E+4	0.002643
7338.	0.3207	1.473E+4	0.002008
7340.	0.3186	1.473E+4	0.000957
7342.	0.3155	1.474E+4	0.00074
7344.	0.318	1.474E+4	-0.000111
7346.	0.3174	1.474E+4	0.001911
7348.	0.3153	1.474E+4	0.000215
7350.	0.3165	1.474E+4	0.001169
7352.	0.3179	1.475E+4	0.002531
7354.	0.3178	1.475E+4	0.001911
7356.	0.3171	1.475E+4	0.001785
7358.	0.3159	1.475E+4	0.001911
7360.	0.3156	1.475E+4	0.001169
7362.	0.3149	1.476E+4	0.002008
7364.	0.3146	1.476E+4	0.001686
7366.	0.3148	1.476E+4	0.001169
7368.	0.3153	1.476E+4	0.001911
7370.	0.3164	1.476E+4	0.001686
7372.	0.3187	1.477E+4	0.000622
7374.	0.3153	1.477E+4	0.001266
7376.	0.3154	1.477E+4	-0.000639
7378.	0.314	1.477E+4	0.001785
7380.	0.3164	1.477E+4	-0.001381
7382.	0.3159	1.478E+4	0.001686
7384.	0.3163	1.478E+4	0.001579
7386.	0.3121	1.478E+4	0.000418
7388.	0.3127	1.478E+4	0.002643
7390.	0.3138	1.478E+4	0.000837
7392.	0.314		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.693

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	3.092E-6	cm/sec
y0	1.446	ft

T = K*b = 0.006691 cm²/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:26:44

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-2

AQUIFER DATA

Saturated Thickness: 70.99 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-2

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.518 ft
Static Water Column Height: 70.99 ft
Casing Radius: 0.08 ft
Well Radius: 0.3 ft
Well Skin Radius: 1. ft
Screen Length: 30. ft
Total Well Penetration Depth: 70.99 ft

No. of Observations: 3435

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.302	3436.	0.6335
2.	2.02	3438.	0.6355
4.	2.014	3440.	0.6382
6.	2.1	3442.	0.633
8.	1.587	3444.	0.6346
10.	1.986	3446.	0.6346
12.	1.917	3448.	0.6342
14.	1.882	3450.	0.6314
16.	2.142	3452.	0.6333
18.	1.61	3454.	0.6297
20.	1.763	3456.	0.6323
22.	1.879	3458.	0.6285
24.	1.876	3460.	0.6305
26.	1.934	3462.	0.6296
28.	1.5	3464.	0.6278
30.	1.87	3466.	0.6279
32.	1.868	3468.	0.6297
34.	1.871	3470.	0.6237
36.	1.868	3472.	0.6252
38.	1.869	3474.	0.6271
40.	1.863	3476.	0.6255
42.	1.861	3478.	0.6251
44.	1.864	3480.	0.6257
46.	1.863	3482.	0.6241
48.	1.853	3484.	0.6234
50.	1.859	3486.	0.6225
52.	1.859	3488.	0.6212
54.	1.856	3490.	0.6231
56.	1.855	3492.	0.622
58.	1.855	3494.	0.6225
60.	1.851	3496.	0.6208

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	1.85	3498.	0.6196
64.	1.853	3500.	0.6271
66.	1.851	3502.	0.6208
68.	1.849	3504.	0.619
70.	1.844	3506.	0.6203
72.	1.849	3508.	0.621
74.	1.846	3510.	0.6184
76.	1.845	3512.	0.6163
78.	1.845	3514.	0.617
80.	1.838	3516.	0.6191
82.	1.841	3518.	0.6177
84.	1.84	3520.	0.6149
86.	1.84	3522.	0.6127
88.	1.831	3524.	0.6142
90.	1.833	3526.	0.6142
92.	1.834	3528.	0.615
94.	1.832	3530.	0.6126
96.	1.832	3532.	0.6119
98.	1.832	3534.	0.6138
100.	1.827	3536.	0.6138
102.	1.827	3538.	0.6657
104.	1.829	3540.	0.6062
106.	1.827	3542.	0.6065
108.	1.823	3544.	0.6073
110.	1.822	3546.	0.6082
112.	1.824	3548.	0.6069
114.	1.821	3550.	0.6078
116.	1.82	3552.	0.6086
118.	1.82	3554.	0.6056
120.	1.816	3556.	0.6063
122.	1.815	3558.	0.605
124.	1.814	3560.	0.6036
126.	1.814	3562.	0.6041
128.	1.808	3564.	0.6117
130.	1.813	3566.	0.6056
132.	1.811	3568.	0.6029
134.	1.81	3570.	0.6022
136.	1.809	3572.	0.6007
138.	1.805	3574.	0.6057
140.	1.803	3576.	0.5959
142.	1.804	3578.	0.5991
144.	1.805	3580.	0.5993
146.	1.804	3582.	0.6001
148.	1.804	3584.	0.6006
150.	1.801	3586.	0.597
152.	1.798	3588.	0.5973
154.	1.801	3590.	0.5983
156.	1.8	3592.	0.5965
158.	1.8	3594.	0.5979
160.	1.795	3596.	0.5979
162.	1.793	3598.	0.5993
164.	1.791	3600.	0.5939
166.	1.78	3602.	0.5946
168.	1.783	3604.	0.5923
170.	1.785	3606.	0.5966
172.	1.786	3608.	0.5948
174.	1.789	3610.	0.5989
176.	1.784	3612.	0.5927
178.	1.784	3614.	0.5925
180.	1.801	3616.	0.5937
182.	1.783	3618.	0.5925
184.	1.781	3620.	0.5899
186.	1.779	3622.	0.5918
188.	1.78	3624.	0.5887
190.	1.776	3626.	0.5898
192.	1.784	3628.	0.5871

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	1.774	3630.	0.589
196.	1.775	3632.	0.5859
198.	1.773	3634.	0.5891
200.	1.774	3636.	0.5875
202.	1.773	3638.	0.5881
204.	1.771	3640.	0.5875
206.	1.771	3642.	0.587
208.	1.771	3644.	0.585
210.	1.765	3646.	0.5846
212.	1.765	3648.	0.5824
214.	1.767	3650.	0.5827
216.	1.764	3652.	0.5888
218.	1.765	3654.	0.5828
220.	1.765	3656.	0.5839
222.	1.763	3658.	0.5871
224.	1.76	3660.	0.5805
226.	1.762	3662.	0.5772
228.	1.761	3664.	0.5816
230.	1.749	3666.	0.5843
232.	1.757	3668.	0.586
234.	1.757	3670.	0.5779
236.	1.753	3672.	0.5763
238.	1.755	3674.	0.5785
240.	1.75	3676.	0.584
242.	1.751	3678.	0.5802
244.	1.751	3680.	0.5828
246.	1.748	3682.	0.5816
248.	1.75	3684.	0.575
250.	1.749	3686.	0.5794
252.	1.745	3688.	0.5804
254.	1.746	3690.	0.582
256.	1.747	3692.	0.5803
258.	1.749	3694.	0.5775
260.	1.746	3696.	0.5771
262.	1.745	3698.	0.5779
264.	1.745	3700.	0.5781
266.	1.744	3702.	0.5694
268.	1.743	3704.	0.5978
270.	1.742	3706.	0.5719
272.	1.736	3708.	0.5772
274.	1.737	3710.	0.5673
276.	1.736	3712.	0.5677
278.	1.737	3714.	0.5761
280.	1.74	3716.	0.5713
282.	1.736	3718.	0.5724
284.	1.732	3720.	0.5715
286.	1.733	3722.	0.5717
288.	1.727	3724.	0.5692
290.	1.732	3726.	0.5694
292.	1.728	3728.	0.5703
294.	1.728	3730.	0.5706
296.	1.728	3732.	0.5677
298.	1.725	3734.	0.5645
300.	1.722	3736.	0.568
302.	1.719	3738.	0.5648
304.	1.723	3740.	0.5617
306.	1.721	3742.	0.561
308.	1.722	3744.	0.5891
310.	1.723	3746.	0.5628
312.	1.718	3748.	0.5665
314.	1.718	3750.	0.5662
316.	1.719	3752.	0.5636
318.	1.718	3754.	0.5574
320.	1.72	3756.	0.5606
322.	1.715	3758.	0.5629
324.	1.714	3760.	0.5637

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	1.712	3762.	0.5637
328.	1.712	3764.	0.5556
330.	1.708	3766.	0.5605
332.	1.709	3768.	0.562
334.	1.707	3770.	0.56
336.	1.708	3772.	0.5579
338.	1.706	3774.	0.554
340.	1.699	3776.	0.5574
342.	1.702	3778.	0.5593
344.	1.701	3780.	0.5601
346.	1.703	3782.	0.5514
348.	1.702	3784.	0.5743
350.	1.701	3786.	0.5549
352.	1.698	3788.	0.5549
354.	1.697	3790.	0.5552
356.	1.698	3792.	0.5573
358.	1.699	3794.	0.5491
360.	1.688	3796.	0.5533
362.	1.694	3798.	0.5503
364.	1.693	3800.	0.5537
366.	1.694	3802.	0.5531
368.	1.694	3804.	0.5467
370.	1.691	3806.	0.5488
372.	1.688	3808.	0.5462
374.	1.687	3810.	0.5535
376.	1.687	3812.	0.5501
378.	1.686	3814.	0.5454
380.	1.69	3816.	0.5475
382.	1.683	3818.	0.548
384.	1.685	3820.	0.55
386.	1.683	3822.	0.5504
388.	1.68	3824.	0.5595
390.	1.683	3826.	0.5465
392.	1.679	3828.	0.5455
394.	1.679	3830.	0.5395
396.	1.681	3832.	0.5382
398.	1.679	3834.	0.5446
400.	1.68	3836.	0.5438
402.	1.676	3838.	0.5447
404.	1.677	3840.	0.5381
406.	1.667	3842.	0.5455
408.	1.674	3844.	0.5443
410.	1.674	3846.	0.5442
412.	1.668	3848.	0.5361
414.	1.669	3850.	0.5368
416.	1.669	3852.	0.5356
418.	1.668	3854.	0.5344
420.	1.663	3856.	0.5426
422.	1.663	3858.	0.5412
424.	1.665	3860.	0.5337
426.	1.662	3862.	0.5345
428.	1.665	3864.	0.5352
430.	1.662	3866.	0.5341
432.	1.662	3868.	0.5339
434.	1.66	3870.	0.5315
436.	1.66	3872.	0.5295
438.	1.651	3874.	0.5304
440.	1.66	3876.	0.5302
442.	1.659	3878.	0.5304
444.	1.649	3880.	0.5308
446.	1.658	3882.	0.5295
448.	1.654	3884.	0.5285
450.	1.652	3886.	0.5285
452.	1.653	3888.	0.5253
454.	1.653	3890.	0.525
456.	1.65	3892.	0.5282

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
458.	1.65	3894.	0.5246
460.	1.648	3896.	0.5292
462.	1.645	3898.	0.5236
464.	1.646	3900.	0.5245
466.	1.647	3902.	0.5276
468.	1.646	3904.	0.525
470.	1.648	3906.	0.5234
472.	1.646	3908.	0.523
474.	1.643	3910.	0.5293
476.	1.641	3912.	0.5205
478.	1.641	3914.	0.5235
480.	1.64	3916.	0.523
482.	1.64	3918.	0.5246
484.	1.636	3920.	0.5203
486.	1.632	3922.	0.5276
488.	1.626	3924.	0.5186
490.	1.635	3926.	0.5188
492.	1.631	3928.	0.5173
494.	1.632	3930.	0.5195
496.	1.625	3932.	0.5202
498.	1.625	3934.	0.5199
500.	1.631	3936.	0.5172
502.	1.62	3938.	0.5173
504.	1.629	3940.	0.5176
506.	1.628	3942.	0.5152
508.	1.626	3944.	0.5155
510.	1.626	3946.	0.5154
512.	1.617	3948.	0.5147
514.	1.617	3950.	0.5159
516.	1.622	3952.	0.5152
518.	1.615	3954.	0.5134
520.	1.621	3956.	0.5204
522.	1.619	3958.	0.5161
524.	1.611	3960.	0.5166
526.	1.617	3962.	0.5154
528.	1.617	3964.	0.5096
530.	1.616	3966.	0.5183
532.	1.614	3968.	0.514
534.	1.614	3970.	0.5077
536.	1.604	3972.	0.518
538.	1.612	3974.	0.5175
540.	1.605	3976.	0.5155
542.	1.612	3978.	0.5079
544.	1.609	3980.	0.5082
546.	1.607	3982.	0.517
548.	1.609	3984.	0.5161
550.	1.607	3986.	0.5085
552.	1.597	3988.	0.5076
554.	1.598	3990.	0.5065
556.	1.599	3992.	0.5028
558.	1.603	3994.	0.4726
560.	1.595	3996.	0.4756
562.	1.601	3998.	0.4914
564.	1.602	4000.	0.498
566.	1.6	4002.	0.5012
568.	1.599	4004.	0.4997
570.	1.59	4006.	0.4992
572.	1.598	4008.	0.5018
574.	1.596	4010.	0.4972
576.	1.591	4012.	0.5025
578.	1.586	4014.	0.4996
580.	1.594	4016.	0.5011
582.	1.585	4018.	0.4987
584.	1.593	4020.	0.5001
586.	1.591	4022.	0.4981
588.	1.585	4024.	0.4959

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
590.	1.589	4026.	0.4961
592.	1.584	4028.	0.495
594.	1.585	4030.	0.5024
596.	1.587	4032.	0.4954
598.	1.582	4034.	0.4972
600.	1.583	4036.	0.4969
602.	1.575	4038.	0.4927
604.	1.575	4040.	0.4955
606.	1.58	4042.	0.4946
608.	1.575	4044.	0.4949
610.	1.579	4046.	0.4931
612.	1.577	4048.	0.4925
614.	1.569	4050.	0.4889
616.	1.577	4052.	0.4919
618.	1.57	4054.	0.4909
620.	1.574	4056.	0.4906
622.	1.576	4058.	0.4897
624.	1.575	4060.	0.4958
626.	1.571	4062.	0.4955
628.	1.573	4064.	0.4919
630.	1.564	4066.	0.4855
632.	1.562	4068.	0.488
634.	1.561	4070.	0.4873
636.	1.557	4072.	0.4875
638.	1.567	4074.	0.4849
640.	1.567	4076.	0.4884
642.	1.566	4078.	0.4862
644.	1.564	4080.	0.4866
646.	1.562	4082.	0.4862
648.	1.558	4084.	0.4842
650.	1.557	4086.	0.4845
652.	1.562	4088.	0.4843
654.	1.561	4090.	0.4861
656.	1.558	4092.	0.4839
658.	1.556	4094.	0.4826
660.	1.55	4096.	0.4805
662.	1.559	4098.	0.4805
664.	1.548	4100.	0.4818
666.	1.556	4102.	0.4827
668.	1.554	4104.	0.4822
670.	1.553	4106.	0.482
672.	1.545	4108.	0.4795
674.	1.545	4110.	0.4796
676.	1.545	4112.	0.4808
678.	1.549	4114.	0.4789
680.	1.548	4116.	0.4797
682.	1.541	4118.	0.4775
684.	1.538	4120.	0.4737
686.	1.538	4122.	0.4768
688.	1.546	4124.	0.4765
690.	1.536	4126.	0.4761
692.	1.537	4128.	0.4746
694.	1.543	4130.	0.4747
696.	1.54	4132.	0.475
698.	1.534	4134.	0.4739
700.	1.539	4136.	0.4743
702.	1.534	4138.	0.4709
704.	1.537	4140.	0.4705
706.	1.538	4142.	0.4746
708.	1.538	4144.	0.4721
710.	1.538	4146.	0.4716
712.	1.529	4148.	0.4731
714.	1.533	4150.	0.4702
716.	1.524	4152.	0.4687
718.	1.529	4154.	0.4696
720.	1.531	4156.	0.4678

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
722.	1.531	4158.	0.4697
724.	1.528	4160.	0.4662
726.	1.528	4162.	0.4674
728.	1.531	4164.	0.468
730.	1.526	4166.	0.4662
732.	1.524	4168.	0.4651
734.	1.517	4170.	0.4682
736.	1.521	4172.	0.4653
738.	1.523	4174.	0.4667
740.	1.525	4176.	0.4638
742.	1.522	4178.	0.4635
744.	1.513	4180.	0.4642
746.	1.518	4182.	0.4624
748.	1.519	4184.	0.463
750.	1.519	4186.	0.4613
752.	1.517	4188.	0.462
754.	1.536	4190.	0.4643
756.	1.51	4192.	0.4611
758.	1.511	4194.	0.4598
760.	1.515	4196.	0.4606
762.	1.514	4198.	0.4618
764.	1.511	4200.	0.4595
766.	1.507	4202.	0.458
768.	1.509	4204.	0.4576
770.	1.511	4206.	0.4572
772.	1.506	4208.	0.4589
774.	1.507	4210.	0.4559
776.	1.503	4212.	0.4577
778.	1.503	4214.	0.4571
780.	1.502	4216.	0.4561
782.	1.502	4218.	0.4551
784.	1.504	4220.	0.4572
786.	1.498	4222.	0.4543
788.	1.499	4224.	0.455
790.	1.5	4226.	0.4547
792.	1.513	4228.	0.4535
794.	1.493	4230.	0.4533
796.	1.496	4232.	0.4545
798.	1.497	4234.	0.4517
800.	1.491	4236.	0.4514
802.	1.495	4238.	0.4509
804.	1.494	4240.	0.4515
806.	1.49	4242.	0.4495
808.	1.492	4244.	0.4517
810.	1.491	4246.	0.4531
812.	1.493	4248.	0.4492
814.	1.491	4250.	0.448
816.	1.488	4252.	0.4489
818.	1.487	4254.	0.447
820.	1.488	4256.	0.4487
822.	1.486	4258.	0.4478
824.	1.486	4260.	0.4431
826.	1.484	4262.	0.4467
828.	1.483	4264.	0.4456
830.	1.482	4266.	0.4467
832.	1.479	4268.	0.4424
834.	1.482	4270.	0.4412
836.	1.477	4272.	0.4451
838.	1.48	4274.	0.4431
840.	1.472	4276.	0.4436
842.	1.48	4278.	0.4451
844.	1.477	4280.	0.4426
846.	1.471	4282.	0.4403
848.	1.475	4284.	0.4398
850.	1.473	4286.	0.4405
852.	1.473	4288.	0.4415

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
854.	1.473	4290.	0.4416
856.	1.467	4292.	0.4409
858.	1.469	4294.	0.4382
860.	1.469	4296.	0.4396
862.	1.47	4298.	0.4384
864.	1.468	4300.	0.4368
866.	1.464	4302.	0.439
868.	1.467	4304.	0.437
870.	1.465	4306.	0.4425
872.	1.459	4308.	0.4339
874.	1.465	4310.	0.4359
876.	1.461	4312.	0.436
878.	1.462	4314.	0.4327
880.	1.454	4316.	0.4336
882.	1.462	4318.	0.4341
884.	1.459	4320.	0.4334
886.	1.456	4322.	0.4343
888.	1.457	4324.	0.4326
890.	1.457	4326.	0.433
892.	1.457	4328.	0.4329
894.	1.455	4330.	0.4317
896.	1.455	4332.	0.4288
898.	1.451	4334.	0.43
900.	1.454	4336.	0.4317
902.	1.451	4338.	0.4294
904.	1.452	4340.	0.4306
906.	1.451	4342.	0.4283
908.	1.452	4344.	0.4285
910.	1.45	4346.	0.4284
912.	1.452	4348.	0.427
914.	1.44	4350.	0.4268
916.	1.449	4352.	0.4255
918.	1.441	4354.	0.4267
920.	1.447	4356.	0.4259
922.	1.44	4358.	0.4257
924.	1.446	4360.	0.425
926.	1.44	4362.	0.4248
928.	1.444	4364.	0.4225
930.	1.437	4366.	0.4221
932.	1.436	4368.	0.4234
934.	1.444	4370.	0.4249
936.	1.435	4372.	0.4182
938.	1.436	4374.	0.4232
940.	1.441	4376.	0.423
942.	1.432	4378.	0.4226
944.	1.438	4380.	0.4213
946.	1.429	4382.	0.4189
948.	1.433	4384.	0.4215
950.	1.428	4386.	0.419
952.	1.43	4388.	0.4195
954.	1.426	4390.	0.4192
956.	1.434	4392.	0.4185
958.	1.427	4394.	0.4182
960.	1.432	4396.	0.4175
962.	1.423	4398.	0.417
964.	1.431	4400.	0.4157
966.	1.424	4402.	0.4155
968.	1.429	4404.	0.4158
970.	1.425	4406.	0.4158
972.	1.425	4408.	0.4133
974.	1.427	4410.	0.416
976.	1.42	4412.	0.4157
978.	1.416	4414.	0.4147
980.	1.416	4416.	0.4137
982.	1.423	4418.	0.4133
984.	1.413	4420.	0.4106

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
986.	1.421	4422.	0.4146
988.	1.422	4424.	0.4134
990.	1.413	4426.	0.4115
992.	1.416	4428.	0.413
994.	1.411	4430.	0.4121
996.	1.411	4432.	0.409
998.	1.41	4434.	0.4096
1000.	1.416	4436.	0.408
1002.	1.414	4438.	0.4082
1004.	1.407	4440.	0.408
1006.	1.407	4442.	0.4093
1008.	1.405	4444.	0.4076
1010.	1.41	4446.	0.4065
1012.	1.411	4448.	0.4084
1014.	1.404	4450.	0.4073
1016.	1.403	4452.	0.4065
1018.	1.402	4454.	0.4061
1020.	1.407	4456.	0.4044
1022.	1.406	4458.	0.4045
1024.	1.406	4460.	0.4029
1026.	1.398	4462.	0.406
1028.	1.401	4464.	0.4025
1030.	1.399	4466.	0.4039
1032.	1.397	4468.	0.4018
1034.	1.399	4470.	0.4011
1036.	1.401	4472.	0.4014
1038.	1.394	4474.	0.4011
1040.	1.393	4476.	0.4029
1042.	1.402	4478.	0.4018
1044.	1.393	4480.	0.4002
1046.	1.399	4482.	0.4022
1048.	1.398	4484.	0.4001
1050.	1.39	4486.	0.3999
1052.	1.383	4488.	0.4008
1054.	1.387	4490.	0.4003
1056.	1.388	4492.	0.3986
1058.	1.382	4494.	0.3985
1060.	1.392	4496.	0.3967
1062.	1.381	4498.	0.3981
1064.	1.383	4500.	0.396
1066.	1.385	4502.	0.3949
1068.	1.389	4504.	0.3954
1070.	1.381	4506.	0.3945
1072.	1.387	4508.	0.3962
1074.	1.378	4510.	0.3937
1076.	1.377	4512.	0.3967
1078.	1.377	4514.	0.3943
1080.	1.379	4516.	0.3929
1082.	1.376	4518.	0.393
1084.	1.373	4520.	0.3948
1086.	1.381	4522.	0.3905
1088.	1.383	4524.	0.392
1090.	1.371	4526.	0.3928
1092.	1.372	4528.	0.3931
1094.	1.372	4530.	0.3909
1096.	1.37	4532.	0.3912
1098.	1.37	4534.	0.3899
1100.	1.377	4536.	0.3886
1102.	1.371	4538.	0.3876
1104.	1.376	4540.	0.3852
1106.	1.366	4542.	0.3894
1108.	1.364	4544.	0.387
1110.	1.371	4546.	0.3887
1112.	1.363	4548.	0.3884
1114.	1.362	4550.	0.3851
1116.	1.37	4552.	0.3864

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1118.	1.36	4554.	0.3849
1120.	1.361	4556.	0.3863
1122.	1.369	4558.	0.387
1124.	1.357	4560.	0.3845
1126.	1.358	4562.	0.3824
1128.	1.357	4564.	0.3814
1130.	1.359	4566.	0.3837
1132.	1.357	4568.	0.385
1134.	1.362	4570.	0.3816
1136.	1.353	4572.	0.3827
1138.	1.361	4574.	0.3828
1140.	1.36	4576.	0.3828
1142.	1.359	4578.	0.3806
1144.	1.352	4580.	0.3795
1146.	1.357	4582.	0.3817
1148.	1.349	4584.	0.3796
1150.	1.348	4586.	0.3769
1152.	1.346	4588.	0.3786
1154.	1.345	4590.	0.3805
1156.	1.348	4592.	0.3777
1158.	1.345	4594.	0.3794
1160.	1.345	4596.	0.3748
1162.	1.351	4598.	0.3758
1164.	1.341	4600.	0.3776
1166.	1.348	4602.	0.3742
1168.	1.349	4604.	0.3759
1170.	1.337	4606.	0.3758
1172.	1.348	4608.	0.3732
1174.	1.346	4610.	0.3825
1176.	1.34	4612.	0.3744
1178.	1.343	4614.	0.3751
1180.	1.336	4616.	0.3756
1182.	1.335	4618.	0.375
1184.	1.337	4620.	0.3711
1186.	1.339	4622.	0.3706
1188.	1.335	4624.	0.3681
1190.	1.333	4626.	0.3708
1192.	1.332	4628.	0.3667
1194.	1.332	4630.	0.369
1196.	1.333	4632.	0.371
1198.	1.331	4634.	0.3685
1200.	1.339	4636.	0.37
1202.	1.328	4638.	0.3679
1204.	1.328	4640.	0.3642
1206.	1.326	4642.	0.3678
1208.	1.326	4644.	0.3682
1210.	1.325	4646.	0.3666
1212.	1.325	4648.	0.3667
1214.	1.324	4650.	0.3664
1216.	1.322	4652.	0.3673
1218.	1.323	4654.	0.3651
1220.	1.318	4656.	0.3646
1222.	1.322	4658.	0.3649
1224.	1.318	4660.	0.364
1226.	1.318	4662.	0.3647
1228.	1.327	4664.	0.3625
1230.	1.319	4666.	0.3652
1232.	1.317	4668.	0.3643
1234.	1.316	4670.	0.3641
1236.	1.323	4672.	0.3614
1238.	1.325	4674.	0.3598
1240.	1.316	4676.	0.359
1242.	1.323	4678.	0.3606
1244.	1.314	4680.	0.3601
1246.	1.314	4682.	0.3597
1248.	1.313	4684.	0.3605

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1250.	1.312	4686.	0.3624
1252.	1.315	4688.	0.3582
1254.	1.308	4690.	0.3562
1256.	1.314	4692.	0.3567
1258.	1.308	4694.	0.3581
1260.	1.307	4696.	0.3576
1262.	1.304	4698.	0.3552
1264.	1.307	4700.	0.3577
1266.	1.311	4702.	0.3561
1268.	1.312	4704.	0.3559
1270.	1.311	4706.	0.3543
1272.	1.31	4708.	0.3546
1274.	1.308	4710.	0.3538
1276.	1.303	4712.	0.3537
1278.	1.3	4714.	0.3551
1280.	1.297	4716.	0.3553
1282.	1.306	4718.	0.3505
1284.	1.299	4720.	0.3523
1286.	1.295	4722.	0.3508
1288.	1.303	4724.	0.3519
1290.	1.297	4726.	0.3549
1292.	1.294	4728.	0.3517
1294.	1.293	4730.	0.3511
1296.	1.294	4732.	0.3517
1298.	1.29	4734.	0.348
1300.	1.292	4736.	0.3488
1302.	1.29	4738.	0.3487
1304.	1.289	4740.	0.3477
1306.	1.289	4742.	0.3468
1308.	1.287	4744.	0.3484
1310.	1.287	4746.	0.3501
1312.	1.293	4748.	0.3454
1314.	1.289	4750.	0.348
1316.	1.282	4752.	0.3471
1318.	1.286	4754.	0.3465
1320.	1.29	4756.	0.3475
1322.	1.285	4758.	0.3479
1324.	1.29	4760.	0.3459
1326.	1.289	4762.	0.3437
1328.	1.279	4764.	0.3452
1330.	1.281	4766.	0.3444
1332.	1.278	4768.	0.3454
1334.	1.283	4770.	0.3435
1336.	1.277	4772.	0.3427
1338.	1.277	4774.	0.3434
1340.	1.283	4776.	0.3399
1342.	1.276	4778.	0.3429
1344.	1.275	4780.	0.3429
1346.	1.273	4782.	0.3439
1348.	1.275	4784.	0.3417
1350.	1.271	4786.	0.3407
1352.	1.272	4788.	0.3409
1354.	1.273	4790.	0.341
1356.	1.269	4792.	0.3402
1358.	1.269	4794.	0.339
1360.	1.272	4796.	0.3374
1362.	1.268	4798.	0.3384
1364.	1.272	4800.	0.3407
1366.	1.266	4802.	0.3393
1368.	1.263	4804.	0.3386
1370.	1.27	4806.	0.3375
1372.	1.264	4808.	0.3375
1374.	1.269	4810.	0.3377
1376.	1.261	4812.	0.3366
1378.	1.268	4814.	0.3343
1380.	1.262	4816.	0.3359

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1382.	1.267	4818.	0.3341
1384.	1.267	4820.	0.3307
1386.	1.259	4822.	0.3353
1388.	1.257	4824.	0.3327
1390.	1.258	4826.	0.3339
1392.	1.258	4828.	0.3348
1394.	1.256	4830.	0.3305
1396.	1.254	4832.	0.332
1398.	1.254	4834.	0.3313
1400.	1.259	4836.	0.3311
1402.	1.26	4838.	0.3282
1404.	1.259	4840.	0.3289
1406.	1.258	4842.	0.3285
1408.	1.251	4844.	0.3302
1410.	1.248	4846.	0.3273
1412.	1.252	4848.	0.33
1414.	1.249	4850.	0.3279
1416.	1.248	4852.	0.3287
1418.	1.253	4854.	0.3277
1420.	1.243	4856.	0.3289
1422.	1.246	4858.	0.3255
1424.	1.243	4860.	0.3264
1426.	1.244	4862.	0.3257
1428.	1.241	4864.	0.3241
1430.	1.249	4866.	0.3248
1432.	1.248	4868.	0.3249
1434.	1.241	4870.	0.3234
1436.	1.242	4872.	0.3199
1438.	1.243	4874.	0.3253
1440.	1.241	4876.	0.3234
1442.	1.243	4878.	0.3218
1444.	1.236	4880.	0.3221
1446.	1.239	4882.	0.3213
1448.	1.241	4884.	0.3215
1450.	1.234	4886.	0.3205
1452.	1.232	4888.	0.32
1454.	1.241	4890.	0.3186
1456.	1.232	4892.	0.3191
1458.	1.239	4894.	0.3187
1460.	1.239	4896.	0.3202
1462.	1.236	4898.	0.3179
1464.	1.23	4900.	0.3171
1466.	1.234	4902.	0.3168
1468.	1.233	4904.	0.3152
1470.	1.231	4906.	0.3148
1472.	1.232	4908.	0.318
1474.	1.232	4910.	0.3168
1476.	1.226	4912.	0.3177
1478.	1.227	4914.	0.3122
1480.	1.227	4916.	0.3158
1482.	1.227	4918.	0.3099
1484.	1.227	4920.	0.3154
1486.	1.224	4922.	0.3141
1488.	1.228	4924.	0.3151
1490.	1.223	4926.	0.3131
1492.	1.222	4928.	0.3118
1494.	1.219	4930.	0.3092
1496.	1.222	4932.	0.3128
1498.	1.221	4934.	0.3124
1500.	1.223	4936.	0.3099
1502.	1.215	4938.	0.3115
1504.	1.221	4940.	0.3116
1506.	1.215	4942.	0.3122
1508.	1.217	4944.	0.3109
1510.	1.214	4946.	0.3079
1512.	1.215	4948.	0.3078

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1514.	1.215	4950.	0.3094
1516.	1.214	4952.	0.3089
1518.	1.213	4954.	0.3064
1520.	1.211	4956.	0.309
1522.	1.211	4958.	0.3076
1524.	1.215	4960.	0.3067
1526.	1.209	4962.	0.307
1528.	1.211	4964.	0.3062
1530.	1.232	4966.	0.3055
1532.	1.21	4968.	0.3053
1534.	1.208	4970.	0.3066
1536.	1.207	4972.	0.3057
1538.	1.208	4974.	0.3037
1540.	1.207	4976.	0.303
1542.	1.2	4978.	0.3028
1544.	1.203	4980.	0.3032
1546.	1.201	4982.	0.3004
1548.	1.203	4984.	0.3008
1550.	1.202	4986.	0.3034
1552.	1.201	4988.	0.3007
1554.	1.2	4990.	0.3022
1556.	1.199	4992.	0.3028
1558.	1.199	4994.	0.3011
1560.	1.199	4996.	0.3019
1562.	1.2	4998.	0.2976
1564.	1.199	5000.	0.2997
1566.	1.194	5002.	0.3003
1568.	1.197	5004.	0.2957
1570.	1.196	5006.	0.2969
1572.	1.196	5008.	0.2994
1574.	1.195	5010.	0.2952
1576.	1.191	5012.	0.2927
1578.	1.193	5014.	0.2946
1580.	1.193	5016.	0.299
1582.	1.186	5018.	0.2952
1584.	1.19	5020.	0.2946
1586.	1.183	5022.	0.2942
1588.	1.185	5024.	0.2993
1590.	1.189	5026.	0.2977
1592.	1.187	5028.	0.2972
1594.	1.18	5030.	0.2944
1596.	1.183	5032.	0.2661
1598.	1.185	5034.	0.2649
1600.	1.186	5036.	0.2761
1602.	1.183	5038.	0.2847
1604.	1.186	5040.	0.2897
1606.	1.18	5042.	0.2879
1608.	1.179	5044.	0.2921
1610.	1.183	5046.	0.2908
1612.	1.184	5048.	0.2879
1614.	1.183	5050.	0.2901
1616.	1.181	5052.	0.2897
1618.	1.18	5054.	0.2882
1620.	1.173	5056.	0.2949
1622.	1.173	5058.	0.2898
1624.	1.172	5060.	0.2877
1626.	1.171	5062.	0.288
1628.	1.172	5064.	0.2952
1630.	1.176	5066.	0.2864
1632.	1.171	5068.	0.2872
1634.	1.172	5070.	0.2917
1636.	1.169	5072.	0.2933
1638.	1.167	5074.	0.2832
1640.	1.165	5076.	0.2919
1642.	1.172	5078.	0.2862
1644.	1.172	5080.	0.2889

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1646.	1.164	5082.	0.2864
1648.	1.163	5084.	0.2811
1650.	1.169	5086.	0.2892
1652.	1.162	5088.	0.2844
1654.	1.163	5090.	0.2864
1656.	1.16	5092.	0.2875
1658.	1.159	5094.	0.2867
1660.	1.166	5096.	0.2849
1662.	1.156	5098.	0.2785
1664.	1.164	5100.	0.2841
1666.	1.164	5102.	0.2838
1668.	1.156	5104.	0.2761
1670.	1.164	5106.	0.2798
1672.	1.153	5108.	0.2824
1674.	1.155	5110.	0.2826
1676.	1.153	5112.	0.2761
1678.	1.153	5114.	0.2757
1680.	1.154	5116.	0.286
1682.	1.15	5118.	0.2764
1684.	1.148	5120.	0.2784
1686.	1.15	5122.	0.2814
1688.	1.156	5124.	0.2747
1690.	1.156	5126.	0.2818
1692.	1.147	5128.	0.2839
1694.	1.144	5130.	0.2796
1696.	1.147	5132.	0.2786
1698.	1.145	5134.	0.2805
1700.	1.15	5136.	0.2801
1702.	1.146	5138.	0.2731
1704.	1.15	5140.	0.2773
1706.	1.142	5142.	0.277
1708.	1.142	5144.	0.275
1710.	1.149	5146.	0.2699
1712.	1.141	5148.	0.274
1714.	1.139	5150.	0.2745
1716.	1.136	5152.	0.268
1718.	1.139	5154.	0.277
1720.	1.14	5156.	0.2779
1722.	1.136	5158.	0.2707
1724.	1.137	5160.	0.2696
1726.	1.136	5162.	0.2741
1728.	1.137	5164.	0.2692
1730.	1.135	5166.	0.2761
1732.	1.133	5168.	0.2704
1734.	1.133	5170.	0.2703
1736.	1.134	5172.	0.2715
1738.	1.139	5174.	0.273
1740.	1.133	5176.	0.2713
1742.	1.131	5178.	0.267
1744.	1.134	5180.	0.2703
1746.	1.126	5182.	0.271
1748.	1.131	5184.	0.2693
1750.	1.126	5186.	0.2638
1752.	1.127	5188.	0.2706
1754.	1.127	5190.	0.2664
1756.	1.131	5192.	0.2682
1758.	1.125	5194.	0.2613
1760.	1.124	5196.	0.2675
1762.	1.124	5198.	0.2624
1764.	1.124	5200.	0.2652
1766.	1.122	5202.	0.2661
1768.	1.123	5204.	0.2619
1770.	1.123	5206.	0.2675
1772.	1.118	5208.	0.2634
1774.	1.122	5210.	0.2637
1776.	1.121	5212.	0.2651

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1778.	1.119	5214.	0.2653
1780.	1.116	5216.	0.266
1782.	1.117	5218.	0.2584
1784.	1.112	5220.	0.2624
1786.	1.115	5222.	0.2631
1788.	1.117	5224.	0.2632
1790.	1.121	5226.	0.2631
1792.	1.121	5228.	0.2619
1794.	1.11	5230.	0.2638
1796.	1.12	5232.	0.2608
1798.	1.111	5234.	0.2618
1800.	1.11	5236.	0.2605
1802.	1.113	5238.	0.2549
1804.	1.111	5240.	0.2589
1806.	1.107	5242.	0.2593
1808.	1.108	5244.	0.2542
1810.	1.107	5246.	0.2588
1812.	1.103	5248.	0.2628
1814.	1.105	5250.	0.2577
1816.	1.104	5252.	0.2563
1818.	1.107	5254.	0.2583
1820.	1.105	5256.	0.257
1822.	1.105	5258.	0.2518
1824.	1.103	5260.	0.2555
1826.	1.102	5262.	0.2562
1828.	1.104	5264.	0.2536
1830.	1.109	5266.	0.2567
1832.	1.101	5268.	0.25
1834.	1.098	5270.	0.2502
1836.	1.102	5272.	0.2484
1838.	1.099	5274.	0.2537
1840.	1.099	5276.	0.2546
1842.	1.098	5278.	0.2523
1844.	1.097	5280.	0.2477
1846.	1.095	5282.	0.2484
1848.	1.095	5284.	0.2472
1850.	1.096	5286.	0.2457
1852.	1.096	5288.	0.2493
1854.	1.09	5290.	0.2446
1856.	1.093	5292.	0.2445
1858.	1.092	5294.	0.2521
1860.	1.092	5296.	0.2484
1862.	1.089	5298.	0.2444
1864.	1.093	5300.	0.2432
1866.	1.088	5302.	0.2444
1868.	1.088	5304.	0.2431
1870.	1.087	5306.	0.2445
1872.	1.088	5308.	0.2453
1874.	1.085	5310.	0.2419
1876.	1.087	5312.	0.2468
1878.	1.086	5314.	0.2411
1880.	1.093	5316.	0.243
1882.	1.085	5318.	0.2398
1884.	1.084	5320.	0.2407
1886.	1.082	5322.	0.2402
1888.	1.08	5324.	0.2466
1890.	1.079	5326.	0.2404
1892.	1.08	5328.	0.2391
1894.	1.079	5330.	0.246
1896.	1.079	5332.	0.2399
1898.	1.085	5334.	0.245
1900.	1.076	5336.	0.2373
1902.	1.078	5338.	0.2381
1904.	1.077	5340.	0.2446
1906.	1.077	5342.	0.2356
1908.	1.076	5344.	0.2348

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1910.	1.076	5346.	0.2373
1912.	1.076	5348.	0.2358
1914.	1.08	5350.	0.236
1916.	1.077	5352.	0.2336
1918.	1.073	5354.	0.2332
1920.	1.078	5356.	0.2339
1922.	1.072	5358.	0.2332
1924.	1.07	5360.	0.2311
1926.	1.078	5362.	0.2335
1928.	1.07	5364.	0.2312
1930.	1.076	5366.	0.2328
1932.	1.067	5368.	0.2321
1934.	1.066	5370.	0.2313
1936.	1.073	5372.	0.2314
1938.	1.065	5374.	0.2308
1940.	1.073	5376.	0.2315
1942.	1.065	5378.	0.2322
1944.	1.064	5380.	0.2297
1946.	1.064	5382.	0.2285
1948.	1.063	5384.	0.2316
1950.	1.062	5386.	0.2297
1952.	1.062	5388.	0.2297
1954.	1.067	5390.	0.2308
1956.	1.06	5392.	0.2264
1958.	1.059	5394.	0.2271
1960.	1.058	5396.	0.228
1962.	1.056	5398.	0.2261
1964.	1.064	5400.	0.2287
1966.	1.054	5402.	0.2271
1968.	1.054	5404.	0.2342
1970.	1.06	5406.	0.2251
1972.	1.058	5408.	0.2249
1974.	1.06	5410.	0.2233
1976.	1.053	5412.	0.2301
1978.	1.052	5414.	0.2253
1980.	1.051	5416.	0.2258
1982.	1.051	5418.	0.2294
1984.	1.05	5420.	0.2287
1986.	1.055	5422.	0.2223
1988.	1.051	5424.	0.2231
1990.	1.055	5426.	0.2228
1992.	1.044	5428.	0.2217
1994.	1.046	5430.	0.2204
1996.	1.054	5432.	0.2185
1998.	1.066	5434.	0.2245
2000.	1.052	5436.	0.2238
2002.	1.048	5438.	0.2214
2004.	1.04	5440.	0.2206
2006.	1.041	5442.	0.2219
2008.	1.039	5444.	0.1912
2010.	1.042	5446.	0.192
2012.	1.045	5448.	0.2048
2014.	1.046	5450.	0.2105
2016.	1.044	5452.	0.2135
2018.	1.043	5454.	0.2167
2020.	1.042	5456.	0.217
2022.	1.041	5458.	0.2158
2024.	1.042	5460.	0.215
2026.	1.041	5462.	0.2143
2028.	1.038	5464.	0.2159
2030.	1.04	5466.	0.2146
2032.	1.038	5468.	0.2159
2034.	1.031	5470.	0.2135
2036.	1.032	5472.	0.2105
2038.	1.057	5474.	0.2132
2040.	1.033	5476.	0.2132

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2042.	1.036	5478.	0.2125
2044.	1.034	5480.	0.2124
2046.	1.034	5482.	0.2117
2048.	1.028	5484.	0.2104
2050.	1.032	5486.	0.2138
2052.	1.031	5488.	0.2124
2054.	1.031	5490.	0.2118
2056.	1.033	5492.	0.2095
2058.	1.024	5494.	0.2089
2060.	1.028	5496.	0.2109
2062.	1.03	5498.	0.2144
2064.	1.027	5500.	0.2087
2066.	1.029	5502.	0.2091
2068.	1.024	5504.	0.2082
2070.	1.028	5506.	0.209
2072.	1.025	5508.	0.209
2074.	1.026	5510.	0.2078
2076.	1.025	5512.	0.2078
2078.	1.028	5514.	0.2067
2080.	1.021	5516.	0.2064
2082.	1.021	5518.	0.2091
2084.	1.023	5520.	0.205
2086.	1.012	5522.	0.2069
2088.	1.013	5524.	0.2063
2090.	1.02	5526.	0.206
2092.	1.019	5528.	0.2046
2094.	1.019	5530.	0.2054
2096.	1.02	5532.	0.2045
2098.	1.02	5534.	0.2037
2100.	1.015	5536.	0.2027
2102.	1.017	5538.	0.2027
2104.	1.017	5540.	0.2027
2106.	1.017	5542.	0.2039
2108.	1.011	5544.	0.2018
2110.	1.012	5546.	0.2006
2112.	1.015	5548.	0.2024
2114.	1.007	5550.	0.1994
2116.	1.01	5552.	0.2013
2118.	1.034	5554.	0.2016
2120.	1.009	5556.	0.1999
2122.	1.008	5558.	0.1973
2124.	1.004	5560.	0.1982
2126.	1.003	5562.	0.1975
2128.	1.002	5564.	0.1971
2130.	1.002	5566.	0.199
2132.	1.002	5568.	0.2004
2134.	1.005	5570.	0.2025
2136.	1.003	5572.	0.1968
2138.	0.9988	5574.	0.1976
2140.	1.001	5576.	0.195
2142.	1.001	5578.	0.1964
2144.	0.997	5580.	0.197
2146.	1.004	5582.	0.1958
2148.	1.	5584.	0.1931
2150.	0.9948	5586.	0.1943
2152.	0.9998	5588.	0.1919
2154.	0.9997	5590.	0.1942
2156.	1.001	5592.	0.1961
2158.	1.01	5594.	0.2009
2160.	0.9961	5596.	0.1936
2162.	0.9964	5598.	0.1982
2164.	0.9896	5600.	0.1939
2166.	0.9958	5602.	0.1946
2168.	0.9986	5604.	0.1931
2170.	0.9913	5606.	0.19
2172.	0.9927	5608.	0.1932

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2174.	0.9921	5610.	0.2001
2176.	0.9867	5612.	0.1911
2178.	0.9885	5614.	0.1883
2180.	0.9937	5616.	0.1912
2182.	0.9847	5618.	0.1908
2184.	0.9848	5620.	0.1862
2186.	0.9844	5622.	0.1879
2188.	0.9805	5624.	0.1903
2190.	0.983	5626.	0.1894
2192.	0.9808	5628.	0.193
2194.	0.9827	5630.	0.1957
2196.	0.9814	5632.	0.1872
2198.	0.9837	5634.	0.1865
2200.	0.979	5636.	0.1875
2202.	0.9788	5638.	0.1874
2204.	0.976	5640.	0.1854
2206.	0.9787	5642.	0.1852
2208.	0.9755	5644.	0.1851
2210.	0.9776	5646.	0.1823
2212.	0.9771	5648.	0.1831
2214.	0.9772	5650.	0.186
2216.	0.9808	5652.	0.1888
2218.	0.9724	5654.	0.189
2220.	0.9762	5656.	0.1826
2222.	0.9735	5658.	0.1818
2224.	0.9743	5660.	0.1913
2226.	0.9733	5662.	0.1805
2228.	0.9724	5664.	0.1813
2230.	0.9729	5666.	0.1839
2232.	0.972	5668.	0.1803
2234.	0.9707	5670.	0.1802
2236.	0.9671	5672.	0.1817
2238.	0.9675	5674.	0.1803
2240.	0.965	5676.	0.1777
2242.	0.9668	5678.	0.1779
2244.	0.9663	5680.	0.1799
2246.	0.9638	5682.	0.1775
2248.	0.9653	5684.	0.1804
2250.	0.9652	5686.	0.1787
2252.	0.9637	5688.	0.1788
2254.	0.9643	5690.	0.1778
2256.	0.9635	5692.	0.1771
2258.	0.9609	5694.	0.1775
2260.	0.961	5696.	0.1771
2262.	0.9606	5698.	0.1764
2264.	0.9605	5700.	0.1759
2266.	0.9618	5702.	0.1747
2268.	0.9589	5704.	0.1744
2270.	0.9568	5706.	0.1752
2272.	0.9568	5708.	0.1762
2274.	0.9586	5710.	0.1732
2276.	0.955	5712.	0.1738
2278.	0.9556	5714.	0.1752
2280.	0.9555	5716.	0.1732
2282.	0.9522	5718.	0.17
2284.	0.9521	5720.	0.1703
2286.	0.9538	5722.	0.1711
2288.	0.9536	5724.	0.1739
2290.	0.9518	5726.	0.1725
2292.	0.9524	5728.	0.1733
2294.	0.9504	5730.	0.1711
2296.	0.9511	5732.	0.1703
2298.	0.949	5734.	0.171
2300.	0.9505	5736.	0.1683
2302.	0.9486	5738.	0.171
2304.	0.9495	5740.	0.1666

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2306.	0.9476	5742.	0.1714
2308.	0.948	5744.	0.1699
2310.	0.9451	5746.	0.1729
2312.	0.9442	5748.	0.1756
2314.	0.9432	5750.	0.1665
2316.	0.9511	5752.	0.167
2318.	0.9448	5754.	0.1673
2320.	0.9425	5756.	0.1651
2322.	0.9423	5758.	0.1656
2324.	0.9426	5760.	0.1631
2326.	0.9392	5762.	0.1645
2328.	0.9385	5764.	0.1672
2330.	0.9412	5766.	0.1673
2332.	0.9403	5768.	0.1598
2334.	0.9386	5770.	0.1666
2336.	0.9382	5772.	0.1637
2338.	0.9368	5774.	0.1633
2340.	0.9325	5776.	0.1645
2342.	0.934	5778.	0.1647
2344.	0.9361	5780.	0.1629
2346.	0.9363	5782.	0.1635
2348.	0.9353	5784.	0.1615
2350.	0.9361	5786.	0.1656
2352.	0.934	5788.	0.1613
2354.	0.9339	5790.	0.1622
2356.	0.9331	5792.	0.163
2358.	0.9296	5794.	0.1616
2360.	0.9306	5796.	0.1588
2362.	0.9301	5798.	0.163
2364.	0.9289	5800.	0.1604
2366.	0.9316	5802.	0.157
2368.	0.9272	5804.	0.1609
2370.	0.9289	5806.	0.1602
2372.	0.9257	5808.	0.1592
2374.	0.9278	5810.	0.1562
2376.	0.9253	5812.	0.1568
2378.	0.9249	5814.	0.1572
2380.	0.9258	5816.	0.1604
2382.	0.9217	5818.	0.1644
2384.	0.9234	5820.	0.1651
2386.	0.9267	5822.	0.157
2388.	0.9222	5824.	0.1554
2390.	0.9199	5826.	0.1556
2392.	0.9216	5828.	0.1567
2394.	0.9284	5830.	0.1553
2396.	0.92	5832.	0.1492
2398.	0.9196	5834.	0.1525
2400.	0.9177	5836.	0.1523
2402.	0.9204	5838.	0.1547
2404.	0.9191	5840.	0.1533
2406.	0.9181	5842.	0.1556
2408.	0.9147	5844.	0.1554
2410.	0.9173	5846.	0.159
2412.	0.9242	5848.	0.1521
2414.	0.9141	5850.	0.1521
2416.	0.9149	5852.	0.1533
2418.	0.915	5854.	0.1485
2420.	0.9109	5856.	0.1494
2422.	0.9124	5858.	0.1508
2424.	0.915	5860.	0.1503
2426.	0.9119	5862.	0.1492
2428.	0.9186	5864.	0.1496
2430.	0.9112	5866.	0.1494
2432.	0.9099	5868.	0.148
2434.	0.912	5870.	0.1486
2436.	0.9083	5872.	0.1476

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2438.	0.915	5874.	0.1487
2440.	0.9161	5876.	0.145
2442.	0.9068	5878.	0.1482
2444.	0.9082	5880.	0.1458
2446.	0.9098	5882.	0.148
2448.	0.9032	5884.	0.148
2450.	0.9125	5886.	0.1463
2452.	0.9115	5888.	0.1467
2454.	0.9081	5890.	0.1468
2456.	0.9066	5892.	0.1446
2458.	0.9017	5894.	0.1445
2460.	0.9014	5896.	0.1468
2462.	0.9059	5898.	0.143
2464.	0.9017	5900.	0.1443
2466.	0.9046	5902.	0.1444
2468.	0.9043	5904.	0.144
2470.	0.9057	5906.	0.1419
2472.	0.903	5908.	0.1416
2474.	0.9023	5910.	0.1428
2476.	0.9008	5912.	0.1445
2478.	0.9007	5914.	0.1417
2480.	0.8984	5916.	0.1417
2482.	0.9026	5918.	0.1472
2484.	0.8995	5920.	0.1417
2486.	0.8997	5922.	0.1398
2488.	0.9006	5924.	0.1404
2490.	0.9018	5926.	0.1418
2492.	0.8941	5928.	0.1393
2494.	0.8982	5930.	0.1399
2496.	0.8962	5932.	0.1397
2498.	0.896	5934.	0.1381
2500.	0.8875	5936.	0.139
2502.	0.8972	5938.	0.1386
2504.	0.8903	5940.	0.138
2506.	0.8946	5942.	0.1367
2508.	0.8845	5944.	0.137
2510.	0.8927	5946.	0.1361
2512.	0.8883	5948.	0.136
2514.	0.8871	5950.	0.1367
2516.	0.8876	5952.	0.135
2518.	0.8896	5954.	0.1347
2520.	0.8786	5956.	0.135
2522.	0.8892	5958.	0.1336
2524.	0.8871	5960.	0.1322
2526.	0.888	5962.	0.1339
2528.	0.8848	5964.	0.1329
2530.	0.8802	5966.	0.1354
2532.	0.8901	5968.	0.1331
2534.	0.8837	5970.	0.1311
2536.	0.8833	5972.	0.1308
2538.	0.8777	5974.	0.1306
2540.	0.8841	5976.	0.1313
2542.	0.8855	5978.	0.1306
2544.	0.88	5980.	0.1309
2546.	0.8818	5982.	0.1305
2548.	0.8736	5984.	0.1296
2550.	0.8744	5986.	0.1387
2552.	0.8742	5988.	0.1275
2554.	0.8766	5990.	0.1308
2556.	0.8793	5992.	0.1295
2558.	0.8783	5994.	0.1305
2560.	0.8782	5996.	0.1269
2562.	0.8786	5998.	0.1353
2564.	0.875	6000.	0.1284
2566.	0.8768	6002.	0.1344
2568.	0.8671	6004.	0.1285

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2570.	0.8744	6006.	0.1321
2572.	0.8679	6008.	0.1278
2574.	0.8719	6010.	0.1259
2576.	0.8713	6012.	0.1312
2578.	0.8732	6014.	0.1276
2580.	0.8658	6016.	0.1258
2582.	0.8698	6018.	0.1248
2584.	0.867	6020.	0.1293
2586.	0.8682	6022.	0.1257
2588.	0.8677	6024.	0.1235
2590.	0.8697	6026.	0.1253
2592.	0.8623	6028.	0.1237
2594.	0.866	6030.	0.1217
2596.	0.8655	6032.	0.1231
2598.	0.8658	6034.	0.1199
2600.	0.8663	6036.	0.1225
2602.	0.8659	6038.	0.1249
2604.	0.8636	6040.	0.1209
2606.	0.8639	6042.	0.1287
2608.	0.8558	6044.	0.1197
2610.	0.8636	6046.	0.118
2612.	0.8637	6048.	0.1215
2614.	0.8629	6050.	0.1194
2616.	0.8618	6052.	0.1214
2618.	0.8546	6054.	0.1184
2620.	0.8555	6056.	0.1201
2622.	0.8602	6058.	0.1191
2624.	0.8599	6060.	0.1181
2626.	0.8546	6062.	0.1175
2628.	0.8513	6064.	0.1162
2630.	0.8517	6066.	0.1182
2632.	0.8593	6068.	0.1196
2634.	0.8513	6070.	0.1143
2636.	0.8493	6072.	0.1183
2638.	0.8476	6074.	0.1167
2640.	0.8485	6076.	0.1153
2642.	0.8489	6078.	0.1148
2644.	0.8482	6080.	0.1157
2646.	0.8481	6082.	0.1137
2648.	0.8468	6084.	0.1141
2650.	0.8469	6086.	0.114
2652.	0.8542	6088.	0.1126
2654.	0.8526	6090.	0.1223
2656.	0.8458	6092.	0.1146
2658.	0.8514	6094.	0.1111
2660.	0.8425	6096.	0.1134
2662.	0.8504	6098.	0.1128
2664.	0.8431	6100.	0.1143
2666.	0.8431	6102.	0.114
2668.	0.8426	6104.	0.1124
2670.	0.8475	6106.	0.1109
2672.	0.839	6108.	0.1126
2674.	0.8408	6110.	0.1098
2676.	0.8402	6112.	0.1098
2678.	0.8379	6114.	0.1093
2680.	0.8384	6116.	0.1119
2682.	0.835	6118.	0.1123
2684.	0.8348	6120.	0.1088
2686.	0.8359	6122.	0.1104
2688.	0.8406	6124.	0.1115
2690.	0.8402	6126.	0.1101
2692.	0.8329	6128.	0.1097
2694.	0.8338	6130.	0.1085
2696.	0.8398	6132.	0.1082
2698.	0.8324	6134.	0.1092
2700.	0.835	6136.	0.1072

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2702.	0.8302	6138.	0.1088
2704.	0.8279	6140.	0.1034
2706.	0.8282	6142.	0.1088
2708.	0.8371	6144.	0.1058
2710.	0.8294	6146.	0.1083
2712.	0.835	6148.	0.1068
2714.	0.8285	6150.	0.1032
2716.	0.8252	6152.	0.1061
2718.	0.8261	6154.	0.1082
2720.	0.827	6156.	0.1042
2722.	0.8248	6158.	0.106
2724.	0.8272	6160.	0.1047
2726.	0.8242	6162.	0.103
2728.	0.8335	6164.	0.1027
2730.	0.8245	6166.	0.1048
2732.	0.8226	6168.	0.1013
2734.	0.8224	6170.	0.1025
2736.	0.8245	6172.	0.1022
2738.	0.8194	6174.	0.1048
2740.	0.8288	6176.	0.1014
2742.	0.8274	6178.	0.102
2744.	0.8188	6180.	0.1007
2746.	0.8156	6182.	0.1014
2748.	0.8232	6184.	0.102
2750.	0.8188	6186.	0.09795
2752.	0.8223	6188.	0.1008
2754.	0.8195	6190.	0.1001
2756.	0.8151	6192.	0.09764
2758.	0.8135	6194.	0.09975
2760.	0.8144	6196.	0.0969
2762.	0.8155	6198.	0.09955
2764.	0.8116	6200.	0.09901
2766.	0.8128	6202.	0.09806
2768.	0.8138	6204.	0.09806
2770.	0.8098	6206.	0.09489
2772.	0.8118	6208.	0.09912
2774.	0.8094	6210.	0.09595
2776.	0.8095	6212.	0.09657
2778.	0.8165	6214.	0.09457
2780.	0.8094	6216.	0.09711
2782.	0.8068	6218.	0.09733
2784.	0.8075	6220.	0.09669
2786.	0.8093	6222.	0.09563
2788.	0.8095	6224.	0.09362
2790.	0.8056	6226.	0.09436
2792.	0.8077	6228.	0.09246
2794.	0.8067	6230.	0.09394
2796.	0.8028	6232.	0.095
2798.	0.8046	6234.	0.0915
2800.	0.8109	6236.	0.09099
2802.	0.8039	6238.	0.09299
2804.	0.8035	6240.	0.09235
2806.	0.8016	6242.	0.09246
2808.	0.7996	6244.	0.09668
2810.	0.7992	6246.	0.09036
2812.	0.805	6248.	0.09141
2814.	0.7997	6250.	0.0894
2816.	0.8025	6252.	0.09025
2818.	0.7942	6254.	0.0894
2820.	0.7982	6256.	0.0915
2822.	0.7977	6258.	0.09045
2824.	0.7976	6260.	0.08909
2826.	0.8057	6262.	0.08507
2828.	0.7934	6264.	0.08612
2830.	0.7999	6266.	0.08845
2832.	0.7957	6268.	0.0894

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2834.	0.7917	6270.	0.0874
2836.	0.7912	6272.	0.08835
2838.	0.7889	6274.	0.08412
2840.	0.7911	6276.	0.08824
2842.	0.7937	6278.	0.08497
2844.	0.7922	6280.	0.08433
2846.	0.791	6282.	0.08686
2848.	0.7899	6284.	0.08612
2850.	0.7899	6286.	0.08549
2852.	0.7882	6288.	0.08402
2854.	0.7885	6290.	0.08456
2856.	0.7887	6292.	0.08233
2858.	0.7868	6294.	0.08465
2860.	0.7855	6296.	0.08456
2862.	0.7941	6298.	0.0837
2864.	0.7833	6300.	0.08011
2866.	0.7849	6302.	0.08159
2868.	0.7846	6304.	0.08265
2870.	0.7832	6306.	0.08318
2872.	0.7832	6308.	0.08233
2874.	0.7922	6310.	0.08244
2876.	0.7808	6312.	0.07969
2878.	0.7812	6314.	0.08075
2880.	0.7816	6316.	0.08107
2882.	0.7818	6318.	0.07854
2884.	0.7879	6320.	0.07886
2886.	0.7807	6322.	0.08096
2888.	0.7794	6324.	0.08022
2890.	0.7792	6326.	0.07823
2892.	0.7777	6328.	0.07768
2894.	0.7781	6330.	0.07906
2896.	0.776	6332.	0.07854
2898.	0.7742	6334.	0.07737
2900.	0.7751	6336.	0.07748
2902.	0.7741	6338.	0.07716
2904.	0.773	6340.	0.07526
2906.	0.7746	6342.	0.07653
2908.	0.7723	6344.	0.07725
2910.	0.7731	6346.	0.07452
2912.	0.7721	6348.	0.07452
2914.	0.7706	6350.	0.08233
2916.	0.7713	6352.	0.0741
2918.	0.7682	6354.	0.07611
2920.	0.7698	6356.	0.07547
2922.	0.7673	6358.	0.06935
2924.	0.7689	6360.	0.06997
2926.	0.7691	6362.	0.07399
2928.	0.767	6364.	0.07156
2930.	0.7676	6366.	0.07346
2932.	0.7689	6368.	0.07103
2934.	0.7649	6370.	0.07357
2936.	0.7674	6372.	0.07221
2938.	0.7659	6374.	0.07008
2940.	0.7649	6376.	0.07242
2942.	0.7623	6378.	0.07114
2944.	0.7625	6380.	0.07019
2946.	0.7608	6382.	0.06892
2948.	0.7631	6384.	0.06955
2950.	0.7621	6386.	0.07093
2952.	0.7616	6388.	0.07144
2954.	0.7588	6390.	0.06849
2956.	0.761	6392.	0.06945
2958.	0.7661	6394.	0.0703
2960.	0.7605	6396.	0.06839
2962.	0.7602	6398.	0.0687
2964.	0.757	6400.	0.06967

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
2966.	0.7583	6402.	0.06733
2968.	0.7633	6404.	0.06776
2970.	0.7549	6406.	0.06564
2972.	0.7552	6408.	0.06532
2974.	0.756	6410.	0.06661
2976.	0.7543	6412.	0.06754
2978.	0.7535	6414.	0.06607
2980.	0.7561	6416.	0.06385
2982.	0.7533	6418.	0.06766
2984.	0.7521	6420.	0.06754
2986.	0.7522	6422.	0.06342
2988.	0.7508	6424.	0.06342
2990.	0.7526	6426.	0.06291
2992.	0.7528	6428.	0.06281
2994.	0.7557	6430.	0.06226
2996.	0.7487	6432.	0.06057
2998.	0.7492	6434.	0.06258
3000.	0.7479	6436.	0.06353
3002.	0.748	6438.	0.06311
3004.	0.7475	6440.	0.06038
3006.	0.7488	6442.	0.06163
3008.	0.7446	6444.	0.06247
3010.	0.7445	6446.	0.06111
3012.	0.747	6448.	0.06376
3014.	0.7433	6450.	0.06132
3016.	0.7444	6452.	0.06142
3018.	0.7426	6454.	0.06258
3020.	0.7438	6456.	0.05943
3022.	0.7419	6458.	0.05795
3024.	0.7482	6460.	0.05953
3026.	0.7501	6462.	0.05689
3028.	0.7416	6464.	0.0589
3030.	0.7396	6466.	0.05837
3032.	0.7399	6468.	0.05815
3034.	0.7393	6470.	0.05815
3036.	0.7382	6472.	0.05593
3038.	0.7369	6474.	0.05689
3040.	0.74	6476.	0.05604
3042.	0.7375	6478.	0.05795
3044.	0.7342	6480.	0.05645
3046.	0.735	6482.	0.05604
3048.	0.7369	6484.	0.05583
3050.	0.7355	6486.	0.05668
3052.	0.7333	6488.	0.05339
3054.	0.7331	6490.	0.05445
3056.	0.7327	6492.	0.05456
3058.	0.7355	6494.	0.0552
3060.	0.7309	6496.	0.05498
3062.	0.733	6498.	0.05552
3064.	0.7302	6500.	0.05552
3066.	0.7312	6502.	0.05382
3068.	0.7313	6504.	0.05299
3070.	0.7267	6506.	0.05286
3072.	0.7352	6508.	0.05445
3074.	0.7279	6510.	0.05286
3076.	0.7284	6512.	0.05023
3078.	0.7272	6514.	0.05223
3080.	0.7251	6516.	0.05075
3082.	0.7267	6518.	0.05108
3084.	0.7253	6520.	0.04813
3086.	0.7269	6522.	0.04803
3088.	0.7235	6524.	0.05075
3090.	0.7247	6526.	0.05097
3092.	0.722	6528.	0.04813
3094.	0.7219	6530.	0.04675
3096.	0.7203	6532.	0.04696

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3098.	0.7223	6534.	0.05023
3100.	0.7231	6536.	0.04613
3102.	0.7222	6538.	0.04876
3104.	0.7281	6540.	0.04633
3106.	0.7187	6542.	0.04739
3108.	0.7199	6544.	0.04729
3110.	0.7258	6546.	0.04718
3112.	0.7198	6548.	0.04665
3114.	0.7176	6550.	0.04749
3116.	0.7162	6552.	0.04411
3118.	0.7182	6554.	0.04571
3120.	0.7167	6556.	0.04696
3122.	0.7152	6558.	0.04528
3124.	0.7164	6560.	0.04508
3126.	0.7151	6562.	0.04296
3128.	0.7143	6564.	0.04518
3130.	0.7161	6566.	0.0437
3132.	0.7133	6568.	0.04242
3134.	0.7133	6570.	0.04296
3136.	0.7112	6572.	0.04591
3138.	0.7132	6574.	0.04305
3140.	0.7097	6576.	0.04338
3142.	0.7098	6578.	0.042
3144.	0.7088	6580.	0.04338
3146.	0.7089	6582.	0.04317
3148.	0.7088	6584.	0.04328
3150.	0.7085	6586.	0.04865
3152.	0.708	6588.	0.04085
3154.	0.7066	6590.	0.04105
3156.	0.7083	6592.	0.04812
3158.	0.7058	6594.	0.03936
3160.	0.7142	6596.	0.03821
3162.	0.704	6598.	0.04
3164.	0.7037	6600.	0.03778
3166.	0.7026	6602.	0.03957
3168.	0.7037	6604.	0.03863
3170.	0.7101	6606.	0.03821
3172.	0.703	6608.	0.03694
3174.	0.702	6610.	0.03778
3176.	0.7023	6612.	0.03377
3178.	0.6999	6614.	0.03684
3180.	0.701	6616.	0.03684
3182.	0.6996	6618.	0.03631
3184.	0.7054	6620.	0.03598
3186.	0.6993	6622.	0.03598
3188.	0.6966	6624.	0.03524
3190.	0.7055	6626.	0.0343
3192.	0.6973	6628.	0.0421
3194.	0.6986	6630.	0.03556
3196.	0.6974	6632.	0.03324
3198.	0.6958	6634.	0.03355
3200.	0.6962	6636.	0.03462
3202.	0.692	6638.	0.0345
3204.	0.6945	6640.	0.03271
3206.	0.6922	6642.	0.03251
3208.	0.6933	6644.	0.03261
3210.	0.6995	6646.	0.03016
3212.	0.6986	6648.	0.03219
3214.	0.6918	6650.	0.03418
3216.	0.692	6652.	0.03176
3218.	0.6904	6654.	0.03048
3220.	0.6909	6656.	0.03239
3222.	0.6899	6658.	0.03112
3224.	0.6912	6660.	0.03145
3226.	0.6881	6662.	0.03091
3228.	0.6866	6664.	0.03208

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3230.	0.6922	6666.	0.03048
3232.	0.687	6668.	0.03037
3234.	0.6933	6670.	0.03037
3236.	0.6855	6672.	0.02722
3238.	0.6853	6674.	0.03438
3240.	0.6854	6676.	0.02838
3242.	0.684	6678.	0.02879
3244.	0.6845	6680.	0.02743
3246.	0.6829	6682.	0.02701
3248.	0.6817	6684.	0.02891
3250.	0.6829	6686.	0.02701
3252.	0.6826	6688.	0.02679
3254.	0.6822	6690.	0.02701
3256.	0.683	6692.	0.03249
3258.	0.6789	6694.	0.0287
3260.	0.6805	6696.	0.02616
3262.	0.6801	6698.	0.02448
3264.	0.6886	6700.	0.02944
3266.	0.6763	6702.	0.02689
3268.	0.6781	6704.	0.02468
3270.	0.6786	6706.	0.02573
3272.	0.6846	6708.	0.02448
3274.	0.6777	6710.	0.02235
3276.	0.675	6712.	0.02448
3278.	0.6773	6714.	0.02553
3280.	0.6755	6716.	0.01993
3282.	0.6735	6718.	0.01972
3284.	0.6743	6720.	0.02247
3286.	0.6795	6722.	0.0194
3288.	0.6751	6724.	0.01993
3290.	0.6742	6726.	0.02298
3292.	0.6734	6728.	0.01993
3294.	0.6789	6730.	0.01835
3296.	0.6697	6732.	0.02141
3298.	0.671	6734.	0.02077
3300.	0.6696	6736.	0.02184
3302.	0.6681	6738.	0.02783
3304.	0.6688	6740.	0.0191
3306.	0.6659	6742.	0.02088
3308.	0.6669	6744.	0.02077
3310.	0.6698	6746.	0.0195
3312.	0.6664	6748.	0.01771
3314.	0.6668	6750.	0.01803
3316.	0.6666	6752.	0.01868
3318.	0.6639	6754.	0.01835
3320.	0.6652	6756.	0.01497
3322.	0.6662	6758.	0.01835
3324.	0.6635	6760.	0.01612
3326.	0.6643	6762.	0.01835
3328.	0.6636	6764.	0.01655
3330.	0.665	6766.	0.01571
3332.	0.6632	6768.	0.01655
3334.	0.6681	6770.	0.01667
3336.	0.6633	6772.	0.01549
3338.	0.6594	6774.	0.01487
3340.	0.6579	6776.	0.0154
3342.	0.66	6778.	0.01412
3344.	0.6554	6780.	0.01507
3346.	0.6592	6782.	0.01339
3348.	0.6541	6784.	0.01317
3350.	0.6579	6786.	0.01097
3352.	0.6576	6788.	0.01296
3354.	0.6579	6790.	0.01296
3356.	0.6582	6792.	0.01233
3358.	0.6551	6794.	0.01392
3360.	0.6555	6796.	0.01033

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
3362.	0.6559	6798.	0.01287
3364.	0.6556	6800.	0.0115
3366.	0.6489	6802.	0.01265
3368.	0.6546	6804.	0.01001
3370.	0.6493	6806.	0.01033
3372.	0.6496	6808.	0.01222
3374.	0.653	6810.	0.01138
3376.	0.6513	6812.	0.01086
3378.	0.6571	6814.	0.00727
3380.	0.6521	6816.	0.01086
3382.	0.6571	6818.	0.008525
3384.	0.6497	6820.	0.007583
3386.	0.6452	6822.	0.01086
3388.	0.6469	6824.	0.008741
3390.	0.6495	6826.	0.007907
3392.	0.6495	6828.	0.008327
3394.	0.6468	6830.	0.01033
3396.	0.6482	6832.	0.006105
3398.	0.6483	6834.	0.007375
3400.	0.6468	6836.	0.007055
3402.	0.6458	6838.	0.005262
3404.	0.6467	6840.	0.004732
3406.	0.6445	6842.	0.006856
3408.	0.644	6844.	0.006324
3410.	0.6417	6846.	0.009469
3412.	0.6415	6848.	0.005044
3414.	0.6414	6850.	0.003681
3416.	0.6387	6852.	0.008115
3418.	0.6401	6854.	0.004732
3420.	0.6405	6856.	0.003894
3422.	0.6414	6858.	0.002616
3424.	0.6359	6860.	0.003475
3426.	0.6374	6862.	0.001462
3428.	0.6358	6864.	0.002616
3430.	0.6365	6866.	0.004852
3432.	0.6385	6868.	0.000818
3434.	0.6358		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.693

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	4.771E-6	cm/sec
y0	1.916	ft

T = K*b = 0.01032 cm²/sec

Aquifer Slug Test Data

Well DW-3

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:28:54

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-3

AQUIFER DATA

Saturated Thickness: 26. ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-3

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 2.106 ft
Static Water Column Height: 63.97 ft
Casing Radius: 0.08 ft
Well Radius: 0.34 ft
Well Skin Radius: 1. ft
Screen Length: 10. ft
Total Well Penetration Depth: 63.97 ft

No. of Observations: 434

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.868	434.	0.023
2.	1.606	436.	0.025
4.	1.414	438.	0.026
6.	1.228	440.	0.024
8.	1.073	442.	0.022
10.	0.968	444.	0.023
12.	0.839	446.	0.025
14.	0.762	448.	0.023
16.	0.701	450.	0.024
18.	0.616	452.	0.022
20.	0.552	454.	0.024
22.	0.495	456.	0.024
24.	0.465	458.	0.023
26.	0.413	460.	0.024
28.	0.37	462.	0.024
30.	0.346	464.	0.023
32.	0.35	466.	0.023
34.	0.326	468.	0.023
36.	0.281	470.	0.023
38.	0.262	472.	0.026
40.	0.24	474.	0.022
42.	0.233	476.	0.021
44.	0.217	478.	0.02
46.	0.208	480.	0.023
48.	0.197	482.	0.025
50.	0.184	484.	0.021
52.	0.175	486.	0.022
54.	0.168	488.	0.023
56.	0.15	490.	0.021
58.	0.153	492.	0.023
60.	0.151	494.	0.02

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	0.137	496.	0.023
64.	0.135	498.	0.022
66.	0.127	500.	0.021
68.	0.124	502.	0.021
70.	0.116	504.	0.02
72.	0.112	506.	0.023
74.	0.107	508.	0.021
76.	0.106	510.	0.023
78.	0.11	512.	0.014
80.	0.114	514.	0.021
82.	0.109	516.	0.021
84.	0.096	518.	0.02
86.	0.093	520.	0.019
88.	0.094	522.	0.019
90.	0.09	524.	0.02
92.	0.09	526.	0.021
94.	0.095	528.	0.021
96.	0.08	530.	0.021
98.	0.083	532.	0.019
100.	0.083	534.	0.019
102.	0.087	536.	0.019
104.	0.085	538.	0.019
106.	0.086	540.	0.017
108.	0.078	542.	0.017
110.	0.08	544.	0.018
112.	0.076	546.	0.021
114.	0.075	548.	0.018
116.	0.079	550.	0.017
118.	0.074	552.	0.017
120.	0.073	554.	0.018
122.	0.077	556.	0.016
124.	0.069	558.	0.016
126.	0.072	560.	0.017
128.	0.068	562.	0.015
130.	0.078	564.	0.016
132.	0.074	566.	0.016
134.	0.073	568.	0.015
136.	0.063	570.	0.019
138.	0.066	572.	0.015
140.	0.064	574.	0.016
142.	0.073	576.	0.015
144.	0.066	578.	0.016
146.	0.07	580.	0.016
148.	0.064	582.	0.019
150.	0.068	584.	0.007
152.	0.067	586.	0.016
154.	0.065	588.	0.015
156.	0.057	590.	0.009
158.	0.058	592.	0.016
160.	0.058	594.	0.015
162.	0.063	596.	0.015
164.	0.064	598.	0.014
166.	0.058	600.	0.014
168.	0.056	602.	0.009
170.	0.064	604.	0.014
172.	0.062	606.	0.016
174.	0.06	608.	0.013
176.	0.05	610.	0.016
178.	0.056	612.	0.015
180.	0.061	614.	0.007
182.	0.062	616.	0.015
184.	0.059	618.	0.013
186.	0.047	620.	0.014
188.	0.053	622.	0.015
190.	0.049	624.	0.013
192.	0.057	626.	0.014

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	0.055	628.	0.015
196.	0.051	630.	0.016
198.	0.048	632.	0.016
200.	0.048	634.	0.012
202.	0.052	636.	0.013
204.	0.044	638.	0.013
206.	0.047	640.	0.014
208.	0.046	642.	0.016
210.	0.047	644.	0.015
212.	0.051	646.	0.014
214.	0.05	648.	0.014
216.	0.029	650.	0.015
218.	0.046	652.	0.014
220.	0.045	654.	0.014
222.	0.051	656.	0.013
224.	0.05	658.	0.013
226.	0.042	660.	0.011
228.	0.042	662.	0.01
230.	0.042	664.	0.013
232.	0.04	666.	0.013
234.	0.041	668.	0.013
236.	0.049	670.	0.013
238.	0.045	672.	0.014
240.	0.048	674.	0.014
242.	0.046	676.	0.012
244.	0.046	678.	0.013
246.	0.044	680.	0.012
248.	0.041	682.	0.011
250.	0.045	684.	0.012
252.	0.042	686.	0.012
254.	0.044	688.	0.014
256.	0.045	690.	0.011
258.	0.043	692.	0.015
260.	0.044	694.	0.014
262.	0.042	696.	0.012
264.	0.035	698.	0.011
266.	0.038	700.	0.01
268.	0.038	702.	0.013
270.	0.043	704.	0.014
272.	0.038	706.	0.011
274.	0.041	708.	0.006
276.	0.043	710.	0.014
278.	0.039	712.	0.016
280.	0.04	714.	0.012
282.	0.038	716.	0.016
284.	0.038	718.	0.014
286.	0.038	720.	0.012
288.	0.037	722.	0.013
290.	0.038	724.	0.012
292.	0.035	726.	0.013
294.	0.039	728.	0.013
296.	0.037	730.	0.012
298.	0.031	732.	0.002
300.	0.037	734.	0.014
302.	0.035	736.	0.014
304.	0.039	738.	0.012
306.	0.035	740.	0.011
308.	0.035	742.	0.012
310.	0.027	744.	0.013
312.	0.033	746.	0.015
314.	0.032	748.	0.015
316.	0.035	750.	0.012
318.	0.036	752.	0.012
320.	0.034	754.	0.006
322.	0.028	756.	0.005
324.	0.036	758.	0.012

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	0.034	760.	0.014
328.	0.033	762.	0.014
330.	0.031	764.	0.013
332.	0.032	766.	0.011
334.	0.032	768.	0.012
336.	0.033	770.	0.015
338.	0.037	772.	0.013
340.	0.031	774.	0.011
342.	0.033	776.	0.008
344.	0.024	778.	0.004
346.	0.032	780.	0.004
348.	0.03	782.	0.011
350.	0.031	784.	0.011
352.	0.031	786.	0.015
354.	0.03	788.	0.016
356.	0.031	790.	0.005
358.	0.03	792.	0.012
360.	0.029	794.	0.006
362.	0.031	796.	0.007
364.	0.029	798.	0.004
366.	0.03	800.	0.006
368.	0.03	802.	0.005
370.	0.034	804.	0.007
372.	0.025	806.	0.006
374.	0.029	808.	0.004
376.	0.028	810.	0.006
378.	0.028	812.	0.006
380.	0.028	814.	0.009
382.	0.027	816.	0.005
384.	0.03	818.	0.001
386.	0.019	820.	0.004
388.	0.026	822.	0.006
390.	0.026	824.	0.009
392.	0.028	826.	0.009
394.	0.028	828.	0.012
396.	0.028	830.	0.004
398.	0.028	832.	0.01
400.	0.028	834.	0.005
402.	0.026	836.	0.003
404.	0.028	838.	0.003
406.	0.02	840.	0.001
408.	0.027	842.	0.013
410.	0.026	844.	0.008
412.	0.026	846.	0.007
414.	0.028	848.	0.013
416.	0.028	850.	0.005
418.	0.028	852.	0.013
420.	0.027	854.	0.007
422.	0.027	856.	0.006
424.	0.025	858.	0.004
426.	0.024	860.	0.017
428.	0.024	862.	0.004
430.	0.025	864.	0.001
432.	0.027	866.	0.

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.244

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0001313	cm/sec
y0	0.1048	ft

T = K*b = 0.104 cm^2/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:30:48

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-3

AQUIFER DATA

Saturated Thickness: 26. ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-3

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 1.877 ft
Static Water Column Height: 63.97 ft
Casing Radius: 0.08 ft
Well Radius: 0.34 ft
Well Skin Radius: 1. ft
Screen Length: 10. ft
Total Well Penetration Depth: 63.97 ft

No. of Observations: 158

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.906	158.	0.03
2.	1.643	160.	0.026
4.	1.434	162.	0.022
6.	1.287	164.	0.028
8.	1.108	166.	0.025
10.	0.986	168.	0.025
12.	0.866	170.	0.02
14.	0.784	172.	0.022
16.	0.681	174.	0.021
18.	0.615	176.	0.022
20.	0.564	178.	0.029
22.	0.493	180.	0.021
24.	0.462	182.	0.017
26.	0.415	184.	0.025
28.	0.377	186.	0.02
30.	0.342	188.	0.02
32.	0.316	190.	0.016
34.	0.287	192.	0.019
36.	0.265	194.	0.019
38.	0.252	196.	0.026
40.	0.225	198.	0.017
42.	0.214	200.	0.022
44.	0.194	202.	0.024
46.	0.188	204.	0.015
48.	0.169	206.	0.014
50.	0.166	208.	0.024
52.	0.149	210.	0.016
54.	0.135	212.	0.016
56.	0.137	214.	0.02
58.	0.13	216.	0.012
60.	0.123	218.	0.013

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	0.111	220.	0.015
64.	0.103	222.	0.011
66.	0.1	224.	0.011
68.	0.099	226.	0.013
70.	0.097	228.	0.01
72.	0.096	230.	0.01
74.	0.089	232.	0.012
76.	0.086	234.	0.016
78.	0.08	236.	0.017
80.	0.076	238.	0.011
82.	0.071	240.	0.009
84.	0.073	242.	0.012
86.	0.069	244.	0.009
88.	0.067	246.	0.009
90.	0.064	248.	0.008
92.	0.055	250.	0.007
94.	0.062	252.	0.006
96.	0.061	254.	0.007
98.	0.058	256.	0.01
100.	0.056	258.	0.008
102.	0.049	260.	0.014
104.	0.053	262.	0.006
106.	0.054	264.	0.004
108.	0.048	266.	0.004
110.	0.046	268.	0.006
112.	0.052	270.	0.011
114.	0.047	272.	0.005
116.	0.048	274.	0.011
118.	0.041	276.	0.01
120.	0.043	278.	0.005
122.	0.039	280.	0.013
124.	0.042	282.	0.004
126.	0.041	284.	0.006
128.	0.039	286.	0.011
130.	0.038	288.	0.005
132.	0.039	290.	0.005
134.	0.036	292.	0.002
136.	0.033	294.	0.002
138.	0.034	296.	0.
140.	0.034	298.	0.003
142.	0.029	300.	0.01
144.	0.033	302.	0.001
146.	0.033	304.	0.001
148.	0.03	306.	0.
150.	0.031	308.	0.006
152.	0.032	310.	0.
154.	0.033	312.	0.001
156.	0.029	314.	0.001

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.244

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0005617	cm/sec
y0	0.233	ft

T = K*b = 0.4452 cm²/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:32:25

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-3

AQUIFER DATA

Saturated Thickness: 26. ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-3

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 2.106 ft
Static Water Column Height: 63.97 ft
Casing Radius: 0.08 ft
Well Radius: 0.34 ft
Well Skin Radius: 1. ft
Screen Length: 10. ft
Total Well Penetration Depth: 63.97 ft

No. of Observations: 695

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
1.	2.106	696.	0.009
2.	1.759	698.	0.012
4.	1.605	700.	0.015
6.	1.551	702.	0.013
8.	1.039	704.	0.015
10.	0.435	706.	0.012
12.	0.779	708.	0.013
14.	0.76	710.	0.012
16.	0.684	712.	0.011
18.	1.257	714.	0.013
20.	0.552	716.	0.009
22.	0.544	718.	0.013
24.	0.411	720.	0.013
26.	0.442	722.	0.011
28.	0.408	724.	0.009
30.	0.365	726.	0.011
32.	0.307	728.	0.009
34.	0.348	730.	0.012
36.	0.28	732.	0.011
38.	0.255	734.	0.012
40.	0.262	736.	0.011
42.	0.228	738.	0.009
44.	0.221	740.	0.01
46.	0.208	742.	0.011
48.	0.199	744.	0.012
50.	0.19	746.	0.011
52.	0.183	748.	0.011
54.	0.174	750.	0.012
56.	0.17	752.	0.01
58.	0.161	754.	0.008
60.	0.152	756.	0.011

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
62.	0.153	758.	0.009
64.	0.138	760.	0.009
66.	0.139	762.	0.01
68.	0.132	764.	0.011
70.	0.134	766.	0.011
72.	0.129	768.	0.013
74.	0.118	770.	0.011
76.	0.118	772.	0.011
78.	0.118	774.	0.009
80.	0.118	776.	0.009
82.	0.117	778.	0.008
84.	0.116	780.	0.007
86.	0.111	782.	0.012
88.	0.106	784.	0.007
90.	0.108	786.	0.01
92.	0.107	788.	0.009
94.	0.099	790.	0.008
96.	0.103	792.	0.012
98.	0.099	794.	0.008
100.	0.101	796.	0.01
102.	0.098	798.	0.007
104.	0.098	800.	0.012
106.	0.095	802.	0.01
108.	0.086	804.	0.01
110.	0.093	806.	0.009
112.	0.092	808.	0.011
114.	0.086	810.	0.008
116.	0.082	812.	0.007
118.	0.081	814.	0.009
120.	0.088	816.	0.009
122.	0.079	818.	0.01
124.	0.087	820.	0.008
126.	0.083	822.	0.008
128.	0.083	824.	0.01
130.	0.079	826.	0.008
132.	0.083	828.	0.009
134.	0.08	830.	0.016
136.	0.075	832.	0.008
138.	0.077	834.	0.006
140.	0.079	836.	0.004
142.	0.076	838.	0.01
144.	0.079	840.	0.016
146.	0.074	842.	0.013
148.	0.076	844.	0.009
150.	0.076	846.	0.015
152.	0.075	848.	0.011
154.	0.074	850.	0.013
156.	0.072	852.	0.017
158.	0.068	854.	0.013
160.	0.074	856.	0.016
162.	0.071	858.	0.013
164.	0.073	860.	0.013
166.	0.068	862.	0.005
168.	0.07	864.	0.014
170.	0.069	866.	0.009
172.	0.069	868.	0.011
174.	0.071	870.	0.011
176.	0.065	872.	0.006
178.	0.065	874.	0.007
180.	0.069	876.	0.006
182.	0.066	878.	0.012
184.	0.067	880.	0.011
186.	0.062	882.	0.012
188.	0.064	884.	0.005
190.	0.063	886.	0.013
192.	0.066	888.	0.009

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
194.	0.065	890.	0.01
196.	0.06	892.	0.014
198.	0.063	894.	0.014
200.	0.061	896.	0.005
202.	0.061	898.	0.009
204.	0.055	900.	0.004
206.	0.06	902.	0.007
208.	0.056	904.	0.004
210.	0.059	906.	0.007
212.	0.059	908.	0.003
214.	0.059	910.	0.003
216.	0.056	912.	0.013
218.	0.056	914.	0.008
220.	0.055	916.	0.015
222.	0.058	918.	0.01
224.	0.055	920.	0.011
226.	0.051	922.	0.013
228.	0.056	924.	0.006
230.	0.054	926.	0.015
232.	0.055	928.	0.009
234.	0.054	930.	0.011
236.	0.051	932.	0.013
238.	0.047	934.	0.013
240.	0.053	936.	0.002
242.	0.054	938.	0.008
244.	0.053	940.	0.009
246.	0.049	942.	0.013
248.	0.053	944.	0.006
250.	0.051	946.	0.004
252.	0.052	948.	0.01
254.	0.052	950.	0.011
256.	0.047	952.	0.005
258.	0.05	954.	0.005
260.	0.053	956.	0.006
262.	0.052	958.	0.007
264.	0.051	960.	0.013
266.	0.047	962.	0.014
268.	0.05	964.	0.007
270.	0.05	966.	0.013
272.	0.049	968.	0.007
274.	0.051	970.	0.013
276.	0.046	972.	0.012
278.	0.048	974.	0.011
280.	0.049	976.	0.011
282.	0.048	978.	0.005
284.	0.041	980.	0.003
286.	0.045	982.	0.004
288.	0.05	984.	0.01
290.	0.047	986.	0.008
292.	0.044	988.	0.011
294.	0.047	990.	0.013
296.	0.042	992.	0.004
298.	0.042	994.	0.004
300.	0.044	996.	0.003
302.	0.046	998.	0.011
304.	0.045	1000.	0.011
306.	0.04	1002.	0.004
308.	0.043	1004.	0.005
310.	0.046	1006.	0.011
312.	0.044	1008.	0.007
314.	0.043	1010.	0.013
316.	0.043	1012.	0.01
318.	0.046	1014.	0.009
320.	0.045	1016.	0.003
322.	0.041	1018.	0.005
324.	0.035	1020.	0.004

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
326.	0.036	1022.	0.002
328.	0.041	1024.	0.005
330.	0.042	1026.	0.003
332.	0.042	1028.	0.004
334.	0.041	1030.	0.003
336.	0.041	1032.	0.005
338.	0.041	1034.	0.004
340.	0.041	1036.	0.003
342.	0.041	1038.	0.005
344.	0.042	1040.	0.006
346.	0.042	1042.	0.006
348.	0.034	1044.	0.006
350.	0.04	1046.	0.007
352.	0.032	1048.	0.006
354.	0.041	1050.	0.006
356.	0.039	1052.	0.007
358.	0.037	1054.	0.006
360.	0.039	1056.	0.004
362.	0.039	1058.	0.006
364.	0.035	1060.	0.005
366.	0.032	1062.	0.006
368.	0.041	1064.	0.007
370.	0.032	1066.	0.006
372.	0.033	1068.	0.007
374.	0.032	1070.	0.007
376.	0.031	1072.	0.007
378.	0.03	1074.	0.006
380.	0.031	1076.	0.005
382.	0.032	1078.	0.006
384.	0.037	1080.	0.005
386.	0.031	1082.	0.007
388.	0.033	1084.	0.006
390.	0.029	1086.	0.006
392.	0.028	1088.	0.006
394.	0.035	1090.	0.006
396.	0.033	1092.	0.005
398.	0.036	1094.	0.006
400.	0.028	1096.	0.003
402.	0.028	1098.	0.005
404.	0.03	1100.	0.005
406.	0.024	1102.	0.007
408.	0.029	1104.	0.004
410.	0.028	1106.	0.006
412.	0.035	1108.	0.003
414.	0.027	1110.	0.005
416.	0.026	1112.	0.006
418.	0.034	1114.	0.005
420.	0.036	1116.	0.004
422.	0.033	1118.	0.006
424.	0.034	1120.	0.003
426.	0.035	1122.	0.003
428.	0.035	1124.	0.004
430.	0.034	1126.	0.004
432.	0.033	1128.	0.002
434.	0.025	1130.	0.006
436.	0.023	1132.	0.005
438.	0.026	1134.	0.006
440.	0.025	1136.	0.002
442.	0.024	1138.	0.008
444.	0.031	1140.	0.006
446.	0.025	1142.	0.006
448.	0.023	1144.	0.005
450.	0.021	1146.	0.007
452.	0.032	1148.	0.005
454.	0.022	1150.	0.003
456.	0.021	1152.	0.005

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
458.	0.022	1154.	0.005
460.	0.032	1156.	0.006
462.	0.025	1158.	0.005
464.	0.026	1160.	0.004
466.	0.03	1162.	0.006
468.	0.029	1164.	0.007
470.	0.028	1166.	0.005
472.	0.023	1168.	0.006
474.	0.024	1170.	0.006
476.	0.026	1172.	0.003
478.	0.027	1174.	0.008
480.	0.03	1176.	0.005
482.	0.022	1178.	0.005
484.	0.027	1180.	0.006
486.	0.026	1182.	0.004
488.	0.029	1184.	0.002
490.	0.018	1186.	0.005
492.	0.028	1188.	0.006
494.	0.035	1190.	0.006
496.	0.026	1192.	0.005
498.	0.027	1194.	0.005
500.	0.023	1196.	0.004
502.	0.026	1198.	0.003
504.	0.021	1200.	0.005
506.	0.026	1202.	0.005
508.	0.025	1204.	0.005
510.	0.027	1206.	0.004
512.	0.028	1208.	0.002
514.	0.026	1210.	0.005
516.	0.023	1212.	0.007
518.	0.025	1214.	0.004
520.	0.026	1216.	0.007
522.	0.017	1218.	0.007
524.	0.023	1220.	0.005
526.	0.024	1222.	0.005
528.	0.014	1224.	0.004
530.	0.017	1226.	0.006
532.	0.024	1228.	0.005
534.	0.02	1230.	0.002
536.	0.02	1232.	0.003
538.	0.024	1234.	0.004
540.	0.025	1236.	0.006
542.	0.025	1238.	0.004
544.	0.019	1240.	0.005
546.	0.02	1242.	0.005
548.	0.024	1244.	0.006
550.	0.024	1246.	0.003
552.	0.025	1248.	0.002
554.	0.018	1250.	0.004
556.	0.023	1252.	0.007
558.	0.024	1254.	0.003
560.	0.024	1256.	0.006
562.	0.019	1258.	0.004
564.	0.021	1260.	0.003
566.	0.019	1262.	0.003
568.	0.023	1264.	0.005
570.	0.017	1266.	0.006
572.	0.024	1268.	0.006
574.	0.017	1270.	0.005
576.	0.02	1272.	0.003
578.	0.02	1274.	0.005
580.	0.023	1276.	0.003
582.	0.022	1278.	0.004
584.	0.016	1280.	0.004
586.	0.022	1282.	0.004
588.	0.021	1284.	0.005

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
590.	0.022	1286.	0.005
592.	0.021	1288.	0.004
594.	0.015	1290.	0.004
596.	0.022	1292.	0.005
598.	0.021	1294.	0.005
600.	0.02	1296.	0.001
602.	0.015	1298.	0.001
604.	0.022	1300.	0.
606.	0.022	1302.	0.003
608.	0.016	1304.	0.001
610.	0.013	1306.	0.
612.	0.019	1308.	0.001
614.	0.017	1310.	0.001
616.	0.018	1312.	0.001
618.	0.02	1314.	0.004
620.	0.015	1316.	0.008
622.	0.014	1318.	-0.001
624.	0.016	1320.	0.005
626.	0.018	1322.	0.001
628.	0.019	1324.	0.006
630.	0.02	1326.	0.002
632.	0.021	1328.	0.011
634.	0.011	1330.	0.
636.	0.014	1332.	0.002
638.	0.018	1334.	0.006
640.	0.02	1336.	0.
642.	0.01	1340.	-0.001
644.	0.016	1342.	0.002
646.	0.018	1344.	0.002
648.	0.012	1346.	0.002
650.	0.014	1348.	0.004
652.	0.013	1350.	0.001
654.	0.014	1352.	0.
656.	0.014	1354.	0.002
658.	0.014	1356.	0.005
660.	0.012	1358.	0.008
662.	0.012	1360.	0.008
664.	0.012	1362.	0.
666.	0.014	1364.	0.001
668.	0.012	1366.	0.003
670.	0.011	1368.	0.001
672.	0.01	1370.	0.001
674.	0.013	1372.	0.002
676.	0.013	1374.	0.009
678.	0.013	1376.	0.005
680.	0.015	1378.	0.008
682.	0.01	1380.	0.009
684.	0.013	1382.	0.001
686.	0.014	1384.	0.
688.	0.014	1386.	0.009
690.	0.014	1388.	0.009
692.	0.013	1390.	0.001
694.	0.013		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 4.244

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate

K	0.0001263	cm/sec
y0	0.1129	ft

T = K*b = 0.1001 cm^2/sec

Aquifer Slug Test Data

Well DW-5

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:33:52

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-5

AQUIFER DATA

Saturated Thickness: 4.8 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-5

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 2.26 ft
Static Water Column Height: 60.5 ft
Casing Radius: 0.088 ft
Well Radius: 0.3 ft
Well Skin Radius: 0.3 ft
Screen Length: 10. ft
Total Well Penetration Depth: 60.5 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.088 ft
Gravel Pack Porosity: 0.3

No. of Observations: 314

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.903	314.	0.009551
2.	1.195	316.	0.008893
4.	0.942	318.	0.007207
6.	0.833	320.	0.007417
8.	0.6925	322.	0.001541
10.	0.5407	324.	0.01113
12.	0.4654	326.	0.01028
14.	0.3892	328.	0.006786
16.	0.3278	330.	0.01113
18.	0.2755	332.	0.01261
20.	0.2325	334.	0.01081
22.	0.1891	336.	0.01229
24.	0.1558	338.	0.01124
26.	0.1323	340.	0.01039
28.	0.109	342.	0.0124
30.	0.1002	344.	0.009551
32.	0.07161	346.	0.007945
34.	0.07602	348.	0.0107
36.	0.05687	350.	0.009857
38.	0.04956	352.	0.009967
40.	0.04527	354.	0.009761
42.	0.0459	356.	0.01198
44.	0.04423	358.	0.01314
46.	0.04251	360.	0.01134
48.	0.04082	362.	0.01274
50.	0.03886	364.	0.01198
52.	0.03413	366.	0.01274
54.	0.03287	368.	0.01303
56.	0.02937	370.	0.01028

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
58.	0.03309	372.	0.01103
60.	0.02396	374.	0.01124
62.	0.02513	376.	0.01016
64.	0.02692	378.	0.0124
66.	0.02914	380.	0.0124
68.	0.02553	382.	0.009435
70.	0.03726	384.	0.01124
72.	0.0229	386.	0.009435
74.	0.02343	388.	0.01039
76.	0.01951	390.	0.0106
78.	0.0213	392.	0.009219
80.	0.02317	394.	0.01229
82.	0.02066	396.	0.01092
84.	0.01982	398.	0.01028
86.	0.02248	400.	0.007848
88.	0.01686	402.	0.007516
90.	0.02486	404.	0.008169
92.	0.0211	406.	0.01049
94.	0.01781	408.	0.008478
96.	0.0211	410.	0.009967
98.	0.02047	412.	0.009435
100.	0.02099	414.	0.006891
102.	0.0211	416.	0.008052
104.	0.01812	418.	0.008893
106.	0.01374	420.	0.007848
108.	0.018	422.	0.007945
110.	0.02014	424.	0.005502
112.	0.01463	426.	0.002855
114.	0.01834	428.	0.007207
116.	0.008005	430.	0.006685
118.	0.01673	432.	0.007734
120.	0.01632	434.	0.009761
122.	0.01569	436.	0.007734
124.	0.01622	438.	0.006572
126.	0.01453	440.	0.003503
128.	0.01579	442.	0.004135
130.	0.01536	444.	0.005296
132.	0.008752	446.	0.004773
134.	0.01473	448.	-0.003859
136.	0.01387	450.	0.008684
138.	0.01463	452.	0.006469
140.	0.01066	454.	0.007516
142.	0.01653	456.	0.005819
144.	0.018	458.	0.007945
146.	0.01705	460.	0.005819
148.	0.01569	462.	0.005718
150.	0.01559	464.	0.003612
152.	0.01632	466.	0.005088
154.	0.0176	468.	0.003808
156.	0.01506	470.	0.005189
158.	0.0176	472.	0.006141
160.	0.01506	474.	0.004232
162.	0.01484	476.	0.006469
164.	0.004827	478.	0.002973
166.	0.01569	480.	0.006372
168.	0.01453	482.	0.006141
170.	0.01356	484.	0.002635
172.	0.01494	486.	0.00455
174.	0.01387	488.	0.004447
176.	0.01367	490.	0.003503
178.	0.01463	492.	0.002323
180.	0.01644	494.	0.004135
182.	0.01028	496.	0.00434
184.	0.01103	498.	0.006141
186.	0.01411	500.	-0.001012
188.	0.01113	502.	0.006034

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
190.	0.01165	504.	0.001911
192.	0.01144	506.	0.005088
194.	0.01049	508.	0.004773
196.	0.01251	510.	0.005502
198.	0.009	512.	0.004979
200.	0.009435	514.	0.005819
202.	0.01124	516.	0.000846
204.	0.008169	518.	0.0018
206.	0.01124	520.	-0.001376
208.	0.005933	522.	0.004873
210.	0.0106	524.	0.005088
212.	0.0107	526.	0.004773
214.	0.008577	528.	0.004873
216.	0.01049	530.	0.00159
218.	0.009967	532.	0.000955
220.	0.009967	534.	0.002855
222.	0.009328	536.	0.002855
224.	0.008684	538.	0.002014
226.	0.009967	540.	-0.002022
228.	0.01092	542.	0.002117
230.	0.009857	544.	-0.000209
232.	0.005502	546.	0.003387
234.	0.008577	548.	0.003387
236.	0.004297	550.	0.001413
238.	0.01049	552.	0.000846
240.	0.01008	554.	0.005618
242.	0.01155	556.	0.00032
244.	0.01008	558.	0.0018
246.	0.008052	560.	0.004608
248.	0.009967	562.	0.002635
250.	0.01218	564.	0.006891
252.	0.008369	566.	0.004979
254.	0.009219	568.	0.004873
256.	0.01103	570.	0.006191
258.	0.007734	572.	0.001695
260.	0.009435	574.	0.004135
262.	0.0106	576.	0.006992
264.	0.003503	578.	0.005618
266.	0.01028	580.	0.01139
268.	0.007106	582.	0.003181
270.	0.006992	584.	0.007106
272.	0.006572	586.	0.009118
274.	0.007848	588.	0.003612
276.	0.009651	590.	0.01511
278.	0.007207	592.	0.009801
280.	0.008369	594.	0.004773
282.	0.004297	596.	0.002746
284.	0.000999	598.	0.005189
286.	0.007734	600.	0.002689
288.	0.007106	602.	0.008317
290.	0.00731	604.	0.002973
292.	0.008478	606.	0.0018
294.	0.007207	608.	0.0018
296.	0.008369	610.	0.002374
298.	0.009761	618.	0.000421
300.	0.005502	620.	0.009475
302.	0.007945	622.	0.002546
304.	0.005296	624.	0.002014
306.	0.006141	626.	0.005296
308.	0.004979	628.	0.001911
310.	0.008369	630.	0.01668
312.	0.004447	632.	0.003929

SOLUTION

Slug Test

Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.71

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0004675	cm/sec
y0	0.03544	ft

T = K*b = 0.0684 cm^2/sec

Data Set: C:\Users\frans.lowman\Documents\Old Docs 8_3_12\ANG Louisiana\Slug Testing\Alexandria Data\Aqtes
Date: 08/15/14
Time: 10:35:00

PROJECT INFORMATION

Company: ERM
Client: ECI-Elon
Location: NC
Test Date: 5/2014
Test Well: DW-5

AQUIFER DATA

Saturated Thickness: 4.8 ft
Anisotropy Ratio (Kz/Kr): 0.25

SLUG TEST WELL DATA

Test Well: DW-5

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 2.26 ft
Static Water Column Height: 60.5 ft
Casing Radius: 0.088 ft
Well Radius: 0.3 ft
Well Skin Radius: 0.3 ft
Screen Length: 10. ft
Total Well Penetration Depth: 60.5 ft
Corrected Casing Radius (Bouwer-Rice Method): 0.088 ft
Gravel Pack Porosity: 0.3

No. of Observations: 256

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.734	256.	0.01998
2.	1.507	258.	0.01797
4.	1.285	260.	0.0192
6.	1.101	262.	0.02283
8.	0.9374	264.	0.0238
10.	0.7846	266.	0.01538
12.	0.6726	268.	0.0121
14.	0.5619	270.	0.01399
16.	0.4711	272.	0.01389
18.	0.3911	274.	0.01691
20.	0.3262	276.	0.01892
22.	0.2684	278.	0.01806
24.	0.2209	280.	0.0121
26.	0.1924	282.	0.01135
28.	0.1582	284.	0.02231
30.	0.1136	286.	0.02275
32.	0.1112	288.	0.02115
34.	0.08934	290.	0.02036
36.	0.07704	292.	0.01591
38.	0.06284	294.	0.02051
40.	0.0598	296.	0.02093
42.	0.05471	298.	0.02105
44.	0.04666	300.	0.02004
46.	0.04728	302.	0.02231
48.	0.04187	304.	0.02283
50.	0.03817	306.	0.02231
52.	0.04178	308.	0.01251
54.	0.03562	310.	0.01909
56.	0.01512	312.	0.01474

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
58.	0.03255	314.	0.02136
60.	0.03413	316.	0.02136
62.	0.03	318.	0.01987
64.	0.02864	320.	0.01453
66.	0.03177	322.	0.02009
68.	0.03031	324.	0.0122
70.	0.03	326.	0.01638
72.	0.02555	328.	0.01448
74.	0.02746	330.	0.01453
76.	0.02975	332.	0.009229
78.	0.02809	334.	0.006359
80.	0.02545	336.	0.01065
82.	0.02693	338.	0.01001
84.	0.02566	340.	0.009022
86.	0.02737	342.	0.01278
88.	0.02576	344.	0.01139
90.	0.0247	346.	0.01096
92.	0.02618	348.	0.009483
94.	0.02964	350.	0.004974
96.	0.02279	352.	0.004019
98.	0.02661	354.	0.009483
100.	0.02226	356.	0.002762
102.	0.0255	358.	0.01096
104.	0.02953	360.	0.003496
106.	0.02142	362.	0.006523
108.	0.02047	364.	0.005937
110.	0.01909	366.	0.01033
112.	0.02206	368.	0.009704
114.	0.01772	370.	0.01081
116.	0.02756	372.	0.006153
118.	0.02311	374.	0.005298
120.	0.01983	376.	0.007477
122.	0.0192	378.	0.01055
124.	0.01983	380.	0.009445
126.	0.02163	382.	0.001903
128.	0.02089	384.	0.009483
130.	0.02423	386.	-0.001797
132.	0.02464	388.	0.005449
134.	0.01803	390.	0.000959
136.	0.01878	392.	0.001182
138.	0.0192	394.	0.007477
140.	0.02611	396.	0.0079
142.	0.02815	398.	0.008957
144.	0.0275	400.	0.0079
146.	0.02185	402.	0.007578
148.	0.02089	404.	0.007677
150.	0.01685	406.	0.007047
152.	0.02528	408.	0.005684
154.	0.01751	410.	0.004392
156.	0.02535	412.	0.006523
158.	0.01941	414.	0.00482
160.	0.01855	416.	0.00461
162.	0.02336	418.	0.004726
164.	0.02347	420.	0.006948
166.	0.01878	422.	0.007154
168.	0.01654	424.	0.004726
170.	0.0238	426.	0.01055
172.	0.02295	428.	0.008634
174.	0.02062	430.	0.005449
176.	0.0122	432.	0.005449
178.	0.01527	434.	0.006948
180.	0.0186	436.	0.008102
182.	0.02242	438.	0.005777
184.	0.01797	440.	0.00621
186.	0.01729	442.	0.005893
188.	0.01685	444.	0.002702

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
190.	0.01155	446.	0.005352
192.	0.01955	448.	0.00621
194.	0.01871	450.	0.004194
196.	0.01559	452.	0.00514
198.	0.0123	454.	0.006426
200.	0.0204	456.	0.007047
202.	0.01733	458.	0.004501
204.	0.01627	460.	0.008535
206.	0.01389	462.	0.004295
208.	0.01421	464.	0.006948
210.	0.01559	466.	0.006153
212.	0.01411	468.	0.006359
214.	0.01934	470.	0.009392
216.	0.0121	472.	0.007477
218.	0.01326	474.	0.007477
220.	0.02072	476.	0.007198
222.	0.01464	478.	0.004019
224.	0.01765	480.	0.00991
226.	0.01903	482.	0.01278
228.	0.01167	484.	0.006002
230.	0.01453	486.	0.009229
232.	0.02136	488.	0.006582
234.	0.02115	490.	0.001589
236.	0.02083	492.	0.004019
238.	0.0204	494.	0.007578
240.	0.01739	496.	0.01448
242.	0.01335	498.	0.003296
244.	0.02093	500.	0.004019
246.	0.01753	502.	0.000637
248.	0.01787	504.	5.0E-6
250.	0.02089	506.	0.01118
252.	0.01272	508.	0.009069
254.	0.02018	510.	0.009598

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Bouwer-Rice
ln(Re/rw): 3.71

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	0.0003669	cm/sec
y0	0.04264	ft

T = K*b = 0.05367 cm²/sec

APPENDIX E
NON-HAZARDOUS WASTE MANIFEST

A&D Environmental Services — Bill of Lading / Material Manifest

A&D Job No:	Generator ID Number	Page 1 of	Emergency Response Phone	Tracking Number
741001	CESQG	1	800-255-3924-MIS0007951	19093

Generator's Name and Mailing Address
Engineered Controls
100 Rego Drive
Elon, NC 27244 USA
336-446-7261

Generator's site address (if different from mailing address)

Transporter 1 [X] 2 [ ] Company Name: A&D Environmental Services, Inc. — US EPA ID No: NCD986232221

Transporter 1 [ ] 2 [ ] Company Name: A&D Environmental Services (SC), LLC — US EPA ID No: SCD987598331

[X] Designated Facility	[ ] Designated Facility	[ ] Designated Facility	[ ] Designated Facility
A&D Environmental Services, Inc. 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	A&D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	A&D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	A&D Environmental Services (SC), LLC 1321 White Horse Road, Suite C Greenville, SC 29605 864-234-6055

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	Non-Regulated Material (IDW-Liquids)	74	DM	22200	P	2014 265
	Non-Regulated Material (IDW-Solids)	9	DM	4500	P	2014 266

	Petroleum Products for Recycle		No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Diesel fuel, 3, III	ERG# 128					
X	NA1993, Fuel oil (No.1,2,4,5 or 6), 3, III	ERG# 128					
X	UN1203, Gasoline, 3, II	ERG# 128					
	USED OIL (Not a USDOT Hazardous Material)						
	Petroleum Contact Water (Not a USDOT Hazardous Material)						

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle

HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)		Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III	ERG# 172	Mercury Containing Articles	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II	ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III	ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III	ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III	ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II	ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III	ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Fluorescent lamps 4'	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)		Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)		Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)		Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Jimmy McCandies	Jimmy McCandies	3	18	15
Transporter 1 Printed/Typed Name	**Signature**	**Month**	**Day**	**Year**
Chuck Elmore	Chuck Elmore	3	18	15
Transporter 2 Printed/Typed Name	**Signature**	**Month**	**Day**	**Year**

Discrepancy Indication / Additional Information:

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name	Signature	Month	Day	Year
Eric D. McManus	E D McManus	3	18	15

DESIGNATED FACILITY TO GENERATOR

A&D Environmental Services — Bill of Lading / Material Manifest

A&D Job No:	Generator ID Number	Page 1 of	Emergency Response Phone	Tracking Number
74(00) 1	CESQG	1	800-255-3924-MIS0007951	19094

Generator's Name and Mailing Address
Engineered Controls
100 Rego Drive
Elon, NC 27244 USA
336-446-7261

Generator's site address (if different from mailing address)

Transporter 1 ☐ 2 ☐ Company Name: A&D Environmental Services, Inc. — US EPA ID No: NCD986232221

Transporter 1 ☒ 2 ☐ Company Name: A&D Environmental Services (SC), LLC — US EPA ID No: SCD987598331

☒ Designated Facility	☐ Designated Facility	☐ Designated Facility	☐ Designated Facility
A&D Environmental Services, Inc. 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	A&D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	A&D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	A&D Environmental Services (SC), LLC 1321 White Horse Road, Suite C Greenville, SC 29605 864-234-6055

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	Non-Regulated Material (IDW-Liquids)	48	DM	14400 ~~18~~	P	2014 265
	Non-Regulated Material (IDW-Solids)	30	DM	15000 ~~30~~	P	2014 266

	Petroleum Products for Recycle		No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Diesel fuel, 3, III	ERG# 128					
X	NA1993, Fuel oil (No.1,2,4,5 or 6), 3, III	ERG# 128					
X	UN1203, Gasoline, 3, II	ERG# 128					
	USED OIL (Not a USDOT Hazardous Material)						
	Petroleum Contact Water (Not a USDOT Hazardous Material)						

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle

HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III ERG# 172	Mercury Containing Articles	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Fluorescent lamps 4'	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e)	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Jimmy McCandless	Jimmy McCandless	3	18	15

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Jimmie Darrell Sluss	Jimmie Darrell Sluss	3	18	15

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

Discrepancy Indication / Additional Information:

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed/Typed Name	Signature	Month	Day	Year
Eric D. McManus	E. D. McManus	3	18	15

DESIGNATED FACILITY TO GENERATOR

APPENDIX F
LABORATORY ANALYTICAL REPORTS

Southeast ACCUTEST LABORATORIES

05/19/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA14869

Sampling Dates: 05/06/14 - 05/07/14

Report to:

ERM

lane.dorman@erm.com

ATTN: Lane Dorman

Total number of pages in report: **139**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA14869

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA14869-1	05/06/14	09:00	GK	05/09/14	SO	Soil	HA-4-0-1
FA14869-2	05/06/14	10:00	GK	05/09/14	SO	Soil	BG-1-5
FA14869-3	05/06/14	10:10	GK	05/09/14	SO	Soil	BG-1-15
FA14869-4	05/06/14	11:00	GK	05/09/14	SO	Soil	BG-2-5
FA14869-5	05/06/14	11:15	GK	05/09/14	SO	Soil	BG-2-15
FA14869-6	05/06/14	11:50	GK	05/09/14	SO	Soil	BG-3-5
FA14869-7	05/06/14	12:00	GK	05/09/14	SO	Soil	BG-3-15
FA14869-8	05/06/14	12:15	GK	05/09/14	SO	Soil	BG-4-5
FA14869-9	05/06/14	12:30	GK	05/09/14	SO	Soil	BG-4-15
FA14869-10	05/06/14	13:45	GK	05/09/14	SO	Soil	BG-5-5
FA14869-11	05/06/14	13:55	GK	05/09/14	SO	Soil	BG-5-13
FA14869-12	05/06/14	00:00	GK	05/09/14	AQ	Trip Blank Soil	TRIP BLANK-2
FA14869-13	05/07/14	15:45	GK	05/09/14	SO	Soil	GP-40-5-7

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

ERM

Job No: FA14869

ECI; 100 Rego Dr, Elon, NC

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA14869-13L	05/07/14	15:45	GK	05/09/14	SO	Soil	GP-40-5-7
FA14869-14	05/07/14	15:55	GK	05/09/14	SO	Soil	GP-40-18-20
FA14869-14L	05/07/14	15:55	GK	05/09/14	SO	Soil	GP-40-18-20
FA14869-15	05/07/14	14:00	GK	05/09/14	SO	Soil	GP-41-5-7
FA14869-16	05/07/14	14:10	GK	05/09/14	SO	Soil	GP-41-23-25
FA14869-17	05/07/14	17:15	GK	05/09/14	SO	Soil	GP-42-5-7
FA14869-17L	05/07/14	17:15	GK	05/09/14	SO	Soil	GP-42-5-7
FA14869-18	05/07/14	17:25	GK	05/09/14	SO	Soil	GP-42-20-22
FA14869-18L	05/07/14	17:25	GK	05/09/14	SO	Soil	GP-42-20-22
FA14869-19	05/07/14	19:30	GK	05/09/14	SO	Soil	GP-43-8-10
FA14869-19L	05/07/14	19:30	GK	05/09/14	SO	Soil	GP-43-8-10
FA14869-20	05/07/14	19:40	GK	05/09/14	SO	Soil	GP-43-28-30
FA14869-20L	05/07/14	19:40	GK	05/09/14	SO	Soil	GP-43-28-30

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

ERM

Job No: FA14869

ECI; 100 Rego Dr, Elon, NC

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA14869-21	05/07/14	21:00	GK	05/09/14	SO	Soil	GP-44-5-7
FA14869-21L	05/07/14	21:00	GK	05/09/14	SO	Soil	GP-44-5-7
FA14869-22	05/07/14	21:10	GK	05/09/14	SO	Soil	GP-44-23-25
FA14869-22L	05/07/14	21:10	GK	05/09/14	SO	Soil	GP-44-23-25
FA14869-23	05/07/14	14:05	GK	05/09/14	SO	Soil	DUP-1
FA14869-24	05/07/14	15:50	GK	05/09/14	SO	Soil	DUP-2
FA14869-25	05/07/14	14:30	GK	05/09/14	AQ	Equipment Blank	RB-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14869-1	**HA-4-0-1**					
Beryllium		0.23 B	0.26	0.026	mg/kg	SW846 6010C
Copper		13.2	1.3	0.052	mg/kg	SW846 6010C
Manganese		519	0.78	0.026	mg/kg	SW846 6010C
Nickel		2.9	2.1	0.026	mg/kg	SW846 6010C
Zinc		11.4	1.0	0.16	mg/kg	SW846 6010C
FA14869-2	**BG-1-5**					
Beryllium		0.29 B	0.36	0.036	mg/kg	SW846 6010C
Cadmium		0.55	0.29	0.036	mg/kg	SW846 6010C
Chromium		26.9	0.73	0.073	mg/kg	SW846 6010C
Copper		27.0	1.8	0.073	mg/kg	SW846 6010C
Lead		8.4	1.5	0.12	mg/kg	SW846 6010C
Manganese		165	1.1	0.036	mg/kg	SW846 6010C
Mercury		0.024 B	0.061	0.0061	mg/kg	SW846 7471B
Nickel		3.9	2.9	0.036	mg/kg	SW846 6010C
Silver		0.40 B	0.73	0.047	mg/kg	SW846 6010C
Zinc		9.7	1.5	0.22	mg/kg	SW846 6010C
FA14869-3	**BG-1-15**					
Antimony [a]		1.3 B	7.2	0.72	mg/kg	SW846 6010C
Arsenic [a]		1.4 B	3.6	0.72	mg/kg	SW846 6010C
Beryllium [a]		0.51 B	1.8	0.18	mg/kg	SW846 6010C
Cadmium [a]		0.36 B	1.4	0.18	mg/kg	SW846 6010C
Chromium [a]		8.9	3.6	0.36	mg/kg	SW846 6010C
Copper [a]		44.6	9.0	0.36	mg/kg	SW846 6010C
Lead		6.6	1.4	0.12	mg/kg	SW846 6010C
Manganese [a]		698	5.4	0.18	mg/kg	SW846 6010C
Mercury		0.0078 B	0.066	0.0066	mg/kg	SW846 7471B
Nickel [a]		6.3 B	14	0.18	mg/kg	SW846 6010C
Selenium [a]		2.5 B	7.2	1.1	mg/kg	SW846 6010C
Zinc [a]		29.3	7.2	1.1	mg/kg	SW846 6010C
FA14869-4	**BG-2-5**					
Beryllium [a]		0.27 B	0.64	0.064	mg/kg	SW846 6010C
Cadmium [a]		0.63	0.51	0.064	mg/kg	SW846 6010C
Chromium [a]		41.5	1.3	0.13	mg/kg	SW846 6010C
Copper [a]		26.5	3.2	0.13	mg/kg	SW846 6010C
Lead		10.8	1.3	0.10	mg/kg	SW846 6010C
Manganese [a]		56.6	1.9	0.064	mg/kg	SW846 6010C
Mercury		0.015 B	0.056	0.0056	mg/kg	SW846 7471B

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Nickel [a]		6.1	5.1	0.064	mg/kg	SW846 6010C
Selenium [a]		2.9	2.5	0.38	mg/kg	SW846 6010C
Silver [a]		0.18 B	1.3	0.083	mg/kg	SW846 6010C
Zinc [a]		13.4	2.5	0.38	mg/kg	SW846 6010C
FA14869-5	**BG-2-15**					
Arsenic		0.23 B	0.60	0.12	mg/kg	SW846 6010C
Beryllium		0.095 B	0.30	0.030	mg/kg	SW846 6010C
Chromium		2.1	0.60	0.060	mg/kg	SW846 6010C
Copper		11.6	1.5	0.060	mg/kg	SW846 6010C
Lead		3.3	1.2	0.095	mg/kg	SW846 6010C
Manganese		126	0.89	0.030	mg/kg	SW846 6010C
Nickel		2.4	2.4	0.030	mg/kg	SW846 6010C
Zinc		20.0	1.2	0.18	mg/kg	SW846 6010C
FA14869-6	**BG-3-5**					
Arsenic		0.34 B	0.60	0.12	mg/kg	SW846 6010C
Beryllium		0.13 B	0.30	0.030	mg/kg	SW846 6010C
Chromium		11.1	0.60	0.060	mg/kg	SW846 6010C
Copper		13.7	1.5	0.060	mg/kg	SW846 6010C
Lead		5.8	1.2	0.096	mg/kg	SW846 6010C
Manganese		29.5	0.90	0.030	mg/kg	SW846 6010C
Mercury		0.011 B	0.052	0.0052	mg/kg	SW846 7471B
Nickel		1.6 B	2.4	0.030	mg/kg	SW846 6010C
Silver		0.078 B	0.60	0.039	mg/kg	SW846 6010C
Zinc		10.8	1.2	0.18	mg/kg	SW846 6010C
FA14869-7	**BG-3-15**					
Arsenic [a]		0.56 B	2.2	0.45	mg/kg	SW846 6010C
Chromium [a]		5.1	2.2	0.22	mg/kg	SW846 6010C
Copper [a]		46.4	5.6	0.22	mg/kg	SW846 6010C
Lead		4.7	1.1	0.090	mg/kg	SW846 6010C
Manganese [a]		198	3.4	0.11	mg/kg	SW846 6010C
Nickel [a]		2.4 B	9.0	0.11	mg/kg	SW846 6010C
Selenium [a]		0.76 B	4.5	0.67	mg/kg	SW846 6010C
Zinc [a]		42.5	4.5	0.67	mg/kg	SW846 6010C
FA14869-8	**BG-4-5**					
Arsenic [a]		0.30 B	1.3	0.25	mg/kg	SW846 6010C
Beryllium [a]		0.15 B	0.63	0.063	mg/kg	SW846 6010C
Cadmium [a]		0.26 B	0.50	0.063	mg/kg	SW846 6010C

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chromium [a]		10.2	1.3	0.13	mg/kg	SW846 6010C
Copper [a]		19.8	3.1	0.13	mg/kg	SW846 6010C
Lead		7.3	1.3	0.10	mg/kg	SW846 6010C
Manganese [a]		127	1.9	0.063	mg/kg	SW846 6010C
Mercury		0.033 B	0.052	0.0052	mg/kg	SW846 7471B
Nickel [a]		2.4 B	5.0	0.063	mg/kg	SW846 6010C
Selenium [a]		1.9 B	2.5	0.38	mg/kg	SW846 6010C
Silver [a]		0.094 B	1.3	0.082	mg/kg	SW846 6010C
Zinc [a]		39.2	2.5	0.38	mg/kg	SW846 6010C
FA14869-9	**BG-4-15**					
Arsenic [a]		1.7 B	6.4	1.3	mg/kg	SW846 6010C
Beryllium [a]		0.45 B	3.2	0.32	mg/kg	SW846 6010C
Chromium [a]		9.4	6.4	0.64	mg/kg	SW846 6010C
Copper [a]		40.7	16	0.64	mg/kg	SW846 6010C
Lead		8.0	1.3	0.10	mg/kg	SW846 6010C
Manganese [a]		1060	9.5	0.32	mg/kg	SW846 6010C
Nickel [a]		8.9 B	25	0.32	mg/kg	SW846 6010C
Selenium [a]		2.2 B	13	1.9	mg/kg	SW846 6010C
Zinc [a]		107	13	1.9	mg/kg	SW846 6010C
FA14869-10	**BG-5-5**					
Arsenic [a]		1.0 B	3.0	0.59	mg/kg	SW846 6010C
Cadmium [a]		0.15 B	1.2	0.15	mg/kg	SW846 6010C
Chromium [a]		17.8	3.0	0.30	mg/kg	SW846 6010C
Copper [a]		6.1 B	7.4	0.30	mg/kg	SW846 6010C
Lead		20.6	1.2	0.095	mg/kg	SW846 6010C
Manganese [a]		1080	4.5	0.15	mg/kg	SW846 6010C
Mercury		0.024 B	0.055	0.0055	mg/kg	SW846 7471B
Nickel [a]		7.0 B	12	0.15	mg/kg	SW846 6010C
Selenium [a]		1.1 B	5.9	0.89	mg/kg	SW846 6010C
Zinc [a]		64.0	5.9	0.89	mg/kg	SW846 6010C
FA14869-11	**BG-5-13**					
Arsenic [a]		3.5 B	14	2.8	mg/kg	SW846 6010C
Beryllium [a]		0.88 B	7.0	0.70	mg/kg	SW846 6010C
Chromium [a]		28.8	14	1.4	mg/kg	SW846 6010C
Copper [a]		23.3 B	35	1.4	mg/kg	SW846 6010C
Lead		8.3	1.4	0.11	mg/kg	SW846 6010C
Manganese [a]		1260	21	0.70	mg/kg	SW846 6010C
Nickel [a]		25.4 B	56	0.70	mg/kg	SW846 6010C
Zinc [a]		104	28	4.2	mg/kg	SW846 6010C

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14869-12	**TRIP BLANK-2**					
No hits reported in this sample.						
FA14869-13	**GP-40-5-7**					
Acetone		23.5 J	59	18	ug/kg	SW846 8260B
Chloroform		2.0 J	5.9	1.3	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		12.8	5.9	1.2	ug/kg	SW846 8260B
Trichloroethylene		157	5.9	1.2	ug/kg	SW846 8260B
FA14869-13L	**GP-40-5-7**					
Benzene		0.0052	0.0010	0.00024	mg/l	SW846 8260B
Ethylbenzene		0.0378	0.0010	0.00028	mg/l	SW846 8260B
Methylene chloride		0.0047 J	0.0050	0.0020	mg/l	SW846 8260B
Tetrachloroethylene		0.0023	0.0010	0.00026	mg/l	SW846 8260B
Toluene		0.0945	0.0050	0.0010	mg/l	SW846 8260B
Trichloroethylene		0.0012	0.0010	0.00030	mg/l	SW846 8260B
Xylene (total)		0.220	0.0030	0.00066	mg/l	SW846 8260B
FA14869-14	**GP-40-18-20**					
Acetone		19.3 J	64	19	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		11.1	6.4	1.3	ug/kg	SW846 8260B
Tetrachloroethylene		4.3 J	6.4	1.6	ug/kg	SW846 8260B
Trichloroethylene		308 J	440	89	ug/kg	SW846 8260B
FA14869-14L	**GP-40-18-20**					
Benzene		0.00030 J	0.0010	0.00024	mg/l	SW846 8260B
Ethylbenzene		0.0170	0.0010	0.00028	mg/l	SW846 8260B
Toluene		0.0290	0.0010	0.00020	mg/l	SW846 8260B
Xylene (total)		0.133	0.0030	0.00066	mg/l	SW846 8260B
FA14869-15	**GP-41-5-7**					
Beryllium		0.21 B	0.29	0.029	mg/kg	SW846 6010C
Copper		22.4	1.4	0.058	mg/kg	SW846 6010C
Manganese		157	0.87	0.029	mg/kg	SW846 6010C
Nickel		3.7	2.3	0.029	mg/kg	SW846 6010C
Zinc		8.0	1.2	0.17	mg/kg	SW846 6010C

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Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14869-16	**GP-41-23-25**					
No hits reported in this sample.						
FA14869-17	**GP-42-5-7**					
Acetone		32.8 J	61	18	ug/kg	SW846 8260B
Chloroform		30.6	6.1	1.4	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		15.6	6.1	1.2	ug/kg	SW846 8260B
Trichloroethylene		8290	360	73	ug/kg	SW846 8260B
FA14869-17L	**GP-42-5-7**					
Ethylbenzene		0.00092 J	0.0010	0.00028	mg/l	SW846 8260B
Styrene		0.0017	0.0010	0.00023	mg/l	SW846 8260B
Tetrachloroethylene		0.0019	0.0010	0.00026	mg/l	SW846 8260B
Toluene		0.0031	0.0010	0.00020	mg/l	SW846 8260B
Xylene (total)		0.0058	0.0030	0.00066	mg/l	SW846 8260B
FA14869-18	**GP-42-20-22**					
Acetone		29.9 J	58	17	ug/kg	SW846 8260B
Chloroform		2.7 J	5.8	1.3	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		11.7	5.8	1.2	ug/kg	SW846 8260B
Trichloroethylene		182	5.8	1.2	ug/kg	SW846 8260B
FA14869-18L	**GP-42-20-22**					
Benzene		0.00046 J	0.0010	0.00024	mg/l	SW846 8260B
Ethylbenzene		0.0024	0.0010	0.00028	mg/l	SW846 8260B
Tetrachloroethylene		0.0056	0.0010	0.00026	mg/l	SW846 8260B
Toluene		0.0107	0.0010	0.00020	mg/l	SW846 8260B
Xylene (total)		0.0150	0.0030	0.00066	mg/l	SW846 8260B
FA14869-19	**GP-43-8-10**					
Acetone		74.2	63	19	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		428	370	74	ug/kg	SW846 8260B
Trichloroethylene		205	6.3	1.3	ug/kg	SW846 8260B
FA14869-19L	**GP-43-8-10**					
cis-1,2-Dichloroethylene		0.0010	0.0010	0.00033	mg/l	SW846 8260B
Ethylbenzene		0.0016	0.0010	0.00028	mg/l	SW846 8260B
Toluene		0.0052	0.0010	0.00020	mg/l	SW846 8260B

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichloroethylene		0.0017	0.0010	0.00030	mg/l	SW846 8260B
Xylene (total)		0.0104	0.0030	0.00066	mg/l	SW846 8260B
FA14869-20	**GP-43-28-30**					
cis-1,2-Dichloroethylene		1.7 J	7.1	1.4	ug/kg	SW846 8260B
Trichloroethylene		10	7.1	1.4	ug/kg	SW846 8260B
FA14869-20L	**GP-43-28-30**					
Tetrachloroethylene		0.00052 J	0.0010	0.00026	mg/l	SW846 8260B
Toluene		0.00042 J	0.0010	0.00020	mg/l	SW846 8260B
FA14869-21	**GP-44-5-7**					
Acetone		185	60	18	ug/kg	SW846 8260B
Chloroform		3.8 J	6.0	1.4	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		12.5	6.0	1.2	ug/kg	SW846 8260B
Methyl ethyl ketone		9.1 J	30	9.0	ug/kg	SW846 8260B
Trichloroethylene		201	6.0	1.2	ug/kg	SW846 8260B
FA14869-21L	**GP-44-5-7**					
Benzene		0.0501	0.0010	0.00024	mg/l	SW846 8260B
Ethylbenzene		0.0077	0.0010	0.00028	mg/l	SW846 8260B
Toluene		0.0791	0.0010	0.00020	mg/l	SW846 8260B
Xylene (total)		0.0730	0.0030	0.00066	mg/l	SW846 8260B
FA14869-22	**GP-44-23-25**					
Trichloroethylene		9.8	6.7	1.4	ug/kg	SW846 8260B
FA14869-22L	**GP-44-23-25**					
Ethylbenzene		0.00032 J	0.0010	0.00028	mg/l	SW846 8260B
Tetrachloroethylene		0.00043 J	0.0010	0.00026	mg/l	SW846 8260B
Toluene		0.0019	0.0010	0.00020	mg/l	SW846 8260B
Xylene (total)		0.0014 J	0.0030	0.00066	mg/l	SW846 8260B
FA14869-23	**DUP-1**					
Beryllium		0.18 B	0.28	0.028	mg/kg	SW846 6010C
Copper		18.3	1.4	0.055	mg/kg	SW846 6010C
Manganese		125	0.83	0.028	mg/kg	SW846 6010C
Nickel		3.1	2.2	0.028	mg/kg	SW846 6010C

Summary of Hits

Job Number: FA14869
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/06/14 thru 05/07/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Zinc		7.7	1.1	0.17	mg/kg	SW846 6010C
FA14869-24	**DUP-2**					
Acetone		22.7 J	62	19	ug/kg	SW846 8260B
Chloroform		3.1 J	6.2	1.4	ug/kg	SW846 8260B
cis-1,2-Dichloroethylene		21.3	6.2	1.2	ug/kg	SW846 8260B
Trichloroethylene		464	370	75	ug/kg	SW846 8260B
FA14869-25	**RB-1**					
Methylene chloride		2.3 J	5.0	2.0	ug/l	SW846 8260B
Toluene		0.37 J	1.0	0.20	ug/l	SW846 8260B
Copper		4.7 B	25	1.0	ug/l	SW846 6010C
Manganese		2.0 B	15	1.0	ug/l	SW846 6010C
Zinc		13.2 B	20	3.0	ug/l	SW846 6010C

(a) Elevated reporting limit(s) due to matrix interference.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	HA-4-0-1		
Lab Sample ID:	FA14869-1	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	88.6
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.10 U	1.0	0.10	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Beryllium	0.23 B	0.26	0.026	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Copper	13.2	1.3	0.052	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Manganese	519	0.78	0.026	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Nickel	2.9	2.1	0.026	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Thallium	0.078 U	0.52	0.078	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Zinc	11.4	1.0	0.16	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA11595
(2) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-1-5		
Lab Sample ID:	FA14869-2	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	65.4
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.15 U	1.5	0.15	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Arsenic	0.15 U	0.73	0.15	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.29 B	0.36	0.036	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Cadmium	0.55	0.29	0.036	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Chromium	26.9	0.73	0.073	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Copper	27.0	1.8	0.073	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Lead	8.4	1.5	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Manganese	165	1.1	0.036	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.024 B	0.061	0.0061	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [3]
Nickel	3.9	2.9	0.036	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Selenium	0.22 U	1.5	0.22	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Silver	0.40 B	0.73	0.047	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Thallium	0.11 U	0.73	0.11	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Zinc	9.7	1.5	0.22	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Prep QC Batch: MP27243
(4) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-1-15		
Lab Sample ID:	FA14869-3	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	56.3
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	1.3 B	7.2	0.72	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	1.4 B	3.6	0.72	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.51 B	1.8	0.18	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.36 B	1.4	0.18	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	8.9	3.6	0.36	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	44.6	9.0	0.36	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	6.6	1.4	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	698	5.4	0.18	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.0078 B	0.066	0.0066	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	6.3 B	14	0.18	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	2.5 B	7.2	1.1	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.23 U	3.6	0.23	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	0.54 U	3.6	0.54	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	29.3	7.2	1.1	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-2-5		
Lab Sample ID:	FA14869-4	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	67.2
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.25 U	2.5	0.25	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	0.25 U	1.3	0.25	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.27 B	0.64	0.064	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.63	0.51	0.064	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	41.5	1.3	0.13	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	26.5	3.2	0.13	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	10.8	1.3	0.10	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	56.6	1.9	0.064	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.015 B	0.056	0.0056	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	6.1	5.1	0.064	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	2.9	2.5	0.38	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.18 B	1.3	0.083	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	0.19 U	1.3	0.19	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	13.4	2.5	0.38	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-2-15		
Lab Sample ID:	FA14869-5	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	68.2
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.12 U	1.2	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Arsenic	0.23 B	0.60	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.095 B	0.30	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Cadmium	0.030 U	0.24	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Chromium	2.1	0.60	0.060	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Copper	11.6	1.5	0.060	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Lead	3.3	1.2	0.095	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Manganese	126	0.89	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.0055 U	0.055	0.0055	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [3]
Nickel	2.4	2.4	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Selenium	0.18 U	1.2	0.18	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Silver	0.039 U	0.60	0.039	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Thallium	0.089 U	0.60	0.089	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Zinc	20.0	1.2	0.18	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Prep QC Batch: MP27243
(4) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-3-5		
Lab Sample ID:	FA14869-6	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	73.3
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.12 U	1.2	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Arsenic	0.34 B	0.60	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.13 B	0.30	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Cadmium	0.030 U	0.24	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Chromium	11.1	0.60	0.060	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Copper	13.7	1.5	0.060	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Lead	5.8	1.2	0.096	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Manganese	29.5	0.90	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.011 B	0.052	0.0052	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [3]
Nickel	1.6 B	2.4	0.030	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Selenium	0.18 U	1.2	0.18	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Silver	0.078 B	0.60	0.039	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Thallium	0.090 U	0.60	0.090	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]
Zinc	10.8	1.2	0.18	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Prep QC Batch: MP27243
(4) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-3-15		
Lab Sample ID:	FA14869-7	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	70.6
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.45 U	4.5	0.45	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	0.56 B	2.2	0.45	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.11 U	1.1	0.11	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.11 U	0.90	0.11	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	5.1	2.2	0.22	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	46.4	5.6	0.22	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	4.7	1.1	0.090	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	198	3.4	0.11	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.0057 U	0.057	0.0057	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	2.4 B	9.0	0.11	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	0.76 B	4.5	0.67	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.15 U	2.2	0.15	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	0.34 U	2.2	0.34	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	42.5	4.5	0.67	mg/kg	4	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-4-5		
Lab Sample ID:	FA14869-8	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	71.2
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.25 U	2.5	0.25	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	0.30 B	1.3	0.25	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.15 B	0.63	0.063	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.26 B	0.50	0.063	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	10.2	1.3	0.13	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	19.8	3.1	0.13	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	7.3	1.3	0.10	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	127	1.9	0.063	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.033 B	0.052	0.0052	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	2.4 B	5.0	0.063	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	1.9 B	2.5	0.38	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.094 B	1.3	0.082	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [b]	1.9 U	2.6	1.9	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	39.2	2.5	0.38	mg/kg	2	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.
(b) Elevated reporting limit(s) due to matrix interference. Manually elevated.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-4-15		
Lab Sample ID:	FA14869-9	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	66.0
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	1.3 U	13	1.3	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	1.7 B	6.4	1.3	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.45 B	3.2	0.32	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.32 U	2.5	0.32	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	9.4	6.4	0.64	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	40.7	16	0.64	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	8.0	1.3	0.10	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	1060	9.5	0.32	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.0060 U	0.060	0.0060	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	8.9 B	25	0.32	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	2.2 B	13	1.9	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.41 U	6.4	0.41	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	0.95 U	6.4	0.95	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	107	13	1.9	mg/kg	10	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-5-5		
Lab Sample ID:	FA14869-10	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	70.2
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.59 U	5.9	0.59	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	1.0 B	3.0	0.59	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.15 U	1.5	0.15	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.15 B	1.2	0.15	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	17.8	3.0	0.30	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	6.1 B	7.4	0.30	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	20.6	1.2	0.095	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	1080	4.5	0.15	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.024 B	0.055	0.0055	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	7.0 B	12	0.15	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	1.1 B	5.9	0.89	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.19 U	3.0	0.19	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	0.45 U	3.0	0.45	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	64.0	5.9	0.89	mg/kg	5	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BG-5-13		
Lab Sample ID:	FA14869-11	**Date Sampled:**	05/06/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	64.5
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	2.8 U	28	2.8	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	3.5 B	14	2.8	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium [a]	0.88 B	7.0	0.70	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Cadmium [a]	0.70 U	5.6	0.70	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	28.8	14	1.4	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	23.3 B	35	1.4	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead	8.3	1.4	0.11	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [2]	SW846 3050B [5]
Manganese [a]	1260	21	0.70	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.0063 U	0.063	0.0063	mg/kg	1	05/12/14	05/12/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	25.4 B	56	0.70	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	4.2 U	28	4.2	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.92 U	14	0.92	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [a]	2.1 U	14	2.1	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [a]	104	28	4.2	mg/kg	20	05/13/14	05/14/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11591
(2) Instrument QC Batch: MA11595
(3) Instrument QC Batch: MA11598
(4) Prep QC Batch: MP27243
(5) Prep QC Batch: MP27247

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TRIP BLANK-2		
Lab Sample ID:	FA14869-12	**Date Sampled:**	05/06/14
Matrix:	AQ - Trip Blank Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25592.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-2		
Lab Sample ID:	FA14869-12	**Date Sampled:**	05/06/14
Matrix:	AQ - Trip Blank Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-2		
Lab Sample ID:	FA14869-12	**Date Sampled:**	05/06/14
Matrix:	AQ - Trip Blank Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	115%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	91%		83-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-5-7		
Lab Sample ID:	FA14869-13	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098303.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2							

	Initial Weight
Run #1	5.40 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	23.5	59	18	ug/kg	J
107-02-8	Acrolein	ND	29	13	ug/kg	
107-13-1	Acrylonitrile	ND	29	9.2	ug/kg	
71-43-2	Benzene	ND	5.9	1.2	ug/kg	
108-86-1	Bromobenzene	ND	5.9	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	5.9	2.3	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	1.2	ug/kg	
75-25-2	Bromoform	ND	5.9	1.3	ug/kg	
104-51-8	n-Butylbenzene	ND	5.9	1.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.9	1.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.9	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	1.2	ug/kg	
75-00-3	Chloroethane	ND	5.9	2.7	ug/kg	
67-66-3	Chloroform	2.0	5.9	1.3	ug/kg	J
95-49-8	o-Chlorotoluene	ND	5.9	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.9	1.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	29	12	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	1.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	1.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	1.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.9	1.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.9	2.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.9	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	1.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	1.2	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.9	1.2	ug/kg	
123-91-1	1,4-Dioxane	ND	240	62	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.9	1.7	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	1.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	12.8	5.9	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-5-7		
Lab Sample ID:	FA14869-13	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	1.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.9	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.9	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.9	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	1.2	ug/kg	
591-78-6	2-Hexanone	ND	29	5.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.9	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	5.9	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.9	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	29	5.9	ug/kg	
74-83-9	Methyl bromide	ND	5.9	2.2	ug/kg	
74-87-3	Methyl chloride	ND	5.9	2.4	ug/kg	
74-95-3	Methylene bromide	ND	5.9	1.4	ug/kg	
75-09-2	Methylene chloride	ND	12	4.7	ug/kg	
78-93-3	Methyl ethyl ketone	ND	29	8.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.9	1.2	ug/kg	
91-20-3	Naphthalene	ND	5.9	2.4	ug/kg	
103-65-1	n-Propylbenzene	ND	5.9	1.2	ug/kg	
100-42-5	Styrene	ND	5.9	1.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.9	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	1.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.9	1.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.9	2.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.9	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.9	1.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.9	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	1.5	ug/kg	
108-88-3	Toluene	ND	5.9	1.2	ug/kg	
79-01-6	Trichloroethylene	157	5.9	1.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.9	1.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	1.2	ug/kg	
108-05-4	Vinyl Acetate	ND	29	9.4	ug/kg	
	m,p-Xylene	ND	12	1.9	ug/kg	
95-47-6	o-Xylene	ND	5.9	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-5-7		
Lab Sample ID:	FA14869-13	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		75-124%
2037-26-5	Toluene-D8	105%		75-126%
460-00-4	4-Bromofluorobenzene	96%		71-133%
17060-07-0	1,2-Dichloroethane-D4	112%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-5-7		
Lab Sample ID:	FA14869-13L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076492.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2	N0076494.D	5	05/19/14	RB	05/13/14	OP51578	VN3348

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	0.0052		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.0378		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	0.0047		0.0050	0.0020	mg/l	J
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	0.0023		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0945 [a]		0.0050	0.0010	mg/l	
79-01-6	Trichloroethylene	0.0012		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-5-7		
Lab Sample ID:	FA14869-13L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.220		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	96%	79-125%
2037-26-5	Toluene-D8	96%	94%	85-112%
460-00-4	4-Bromofluorobenzene	100%	101%	83-118%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-18-20		
Lab Sample ID:	FA14869-14	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	71.5
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098304.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2	C098328.D	1	05/12/14	AH	n/a	n/a	VC3943

	Initial Weight	Methanol Aliquot
Run #1	5.50 g	
Run #2	5.19 g	100 ul

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.3	64	19	ug/kg	J
107-02-8	Acrolein	ND	32	14	ug/kg	
107-13-1	Acrylonitrile	ND	32	9.9	ug/kg	
71-43-2	Benzene	ND	6.4	1.3	ug/kg	
108-86-1	Bromobenzene	ND	6.4	1.4	ug/kg	
74-97-5	Bromochloromethane	ND	6.4	2.4	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	1.3	ug/kg	
75-25-2	Bromoform	ND	6.4	1.4	ug/kg	
104-51-8	n-Butylbenzene	ND	6.4	1.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.4	1.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.4	1.3	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	1.3	ug/kg	
75-00-3	Chloroethane	ND	6.4	2.9	ug/kg	
67-66-3	Chloroform	ND	6.4	1.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.4	1.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.4	1.3	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	32	13	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	1.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.4	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.4	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.4	1.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.4	2.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.4	2.3	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.4	1.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	1.3	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.4	1.3	ug/kg	
123-91-1	1,4-Dioxane	ND	250	67	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.4	1.8	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	1.3	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.4	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	11.1	6.4	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-18-20		
Lab Sample ID:	FA14869-14	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	71.5
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.4	1.3	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.4	1.3	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.4	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.4	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	1.3	ug/kg	
100-41-4	Ethylbenzene	ND	6.4	1.3	ug/kg	
591-78-6	2-Hexanone	ND	32	6.2	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.4	1.3	ug/kg	
98-82-8	Isopropylbenzene	ND	6.4	1.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.4	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	32	6.4	ug/kg	
74-83-9	Methyl bromide	ND	6.4	2.4	ug/kg	
74-87-3	Methyl chloride	ND	6.4	2.5	ug/kg	
74-95-3	Methylene bromide	ND	6.4	1.5	ug/kg	
75-09-2	Methylene chloride	ND	13	5.1	ug/kg	
78-93-3	Methyl ethyl ketone	ND	32	9.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.4	1.3	ug/kg	
91-20-3	Naphthalene	ND	6.4	2.5	ug/kg	
103-65-1	n-Propylbenzene	ND	6.4	1.3	ug/kg	
100-42-5	Styrene	ND	6.4	1.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.4	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.4	1.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.4	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.4	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.4	2.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.4	1.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.4	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.4	1.3	ug/kg	
127-18-4	Tetrachloroethylene	4.3	6.4	1.6	ug/kg	J
108-88-3	Toluene	ND	6.4	1.3	ug/kg	
79-01-6	Trichloroethylene	308 [a]	440	89	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	6.4	1.3	ug/kg	
75-01-4	Vinyl chloride	ND	6.4	1.3	ug/kg	
108-05-4	Vinyl Acetate	ND	32	10	ug/kg	
	m,p-Xylene	ND	13	2.0	ug/kg	
95-47-6	o-Xylene	ND	6.4	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-18-20		
Lab Sample ID:	FA14869-14	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	71.5
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%	111%	75-124%
2037-26-5	Toluene-D8	102%	104%	75-126%
460-00-4	4-Bromofluorobenzene	100%	99%	71-133%
17060-07-0	1,2-Dichloroethane-D4	114%	114%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [b]		0	ug/kg	

(a) Result is from Run# 2
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-18-20		
Lab Sample ID:	FA14869-14L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	71.5
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076495.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	0.00030		0.0010	0.00024	mg/l	J
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.0170		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	ND		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0290		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-40-18-20		
Lab Sample ID:	FA14869-14L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	71.5
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.133		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-41-5-7		
Lab Sample ID:	FA14869-15	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	78.6
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.12 U	1.2	0.12	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Beryllium	0.21 B	0.29	0.029	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Copper	22.4	1.4	0.058	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Manganese	157	0.87	0.029	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Nickel	3.7	2.3	0.029	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Thallium	0.087 U	0.58	0.087	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Zinc	8.0	1.2	0.17	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA11595
(2) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GP-41-23-25		
Lab Sample ID:	FA14869-16	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	67.2
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	67.2		%	1	05/10/14 15:04	FN	SM19 2540G

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GP-42-5-7		
Lab Sample ID:	FA14869-17	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098305.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2	C098329.D	1	05/12/14	AH	n/a	n/a	VC3943

	Initial Weight	Methanol Aliquot
Run #1	5.28 g	
Run #2	5.59 g	100 ul

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	32.8	61	18	ug/kg	J
107-02-8	Acrolein	ND	30	13	ug/kg	
107-13-1	Acrylonitrile	ND	30	9.5	ug/kg	
71-43-2	Benzene	ND	6.1	1.2	ug/kg	
108-86-1	Bromobenzene	ND	6.1	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	6.1	2.3	ug/kg	
75-27-4	Bromodichloromethane	ND	6.1	1.2	ug/kg	
75-25-2	Bromoform	ND	6.1	1.3	ug/kg	
104-51-8	n-Butylbenzene	ND	6.1	1.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.1	1.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.1	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	6.1	1.2	ug/kg	
75-00-3	Chloroethane	ND	6.1	2.7	ug/kg	
67-66-3	Chloroform	30.6	6.1	1.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.1	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.1	1.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	30	12	ug/kg	
75-15-0	Carbon disulfide	ND	6.1	1.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.1	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.1	1.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.1	1.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.1	1.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.1	2.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.1	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.1	1.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.1	1.2	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.1	1.2	ug/kg	
123-91-1	1,4-Dioxane	ND	240	64	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.1	1.7	ug/kg	
124-48-1	Dibromochloromethane	ND	6.1	1.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.1	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	15.6	6.1	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-5-7		
Lab Sample ID:	FA14869-17	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.1	1.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.1	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.1	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.1	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.1	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.1	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	6.1	1.2	ug/kg	
591-78-6	2-Hexanone	ND	30	5.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.1	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	6.1	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.1	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	30	6.1	ug/kg	
74-83-9	Methyl bromide	ND	6.1	2.3	ug/kg	
74-87-3	Methyl chloride	ND	6.1	2.4	ug/kg	
74-95-3	Methylene bromide	ND	6.1	1.4	ug/kg	
75-09-2	Methylene chloride	ND	12	4.9	ug/kg	
78-93-3	Methyl ethyl ketone	ND	30	9.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.1	1.2	ug/kg	
91-20-3	Naphthalene	ND	6.1	2.4	ug/kg	
103-65-1	n-Propylbenzene	ND	6.1	1.2	ug/kg	
100-42-5	Styrene	ND	6.1	1.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.1	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.1	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.1	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.1	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.1	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.1	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.1	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.1	1.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.1	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.1	1.5	ug/kg	
108-88-3	Toluene	ND	6.1	1.2	ug/kg	
79-01-6	Trichloroethylene	8290 [a]	360	73	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.1	1.2	ug/kg	
75-01-4	Vinyl chloride	ND	6.1	1.2	ug/kg	
108-05-4	Vinyl Acetate	ND	30	9.7	ug/kg	
	m,p-Xylene	ND	12	1.9	ug/kg	
95-47-6	o-Xylene	ND	6.1	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-5-7		
Lab Sample ID:	FA14869-17	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.0
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%	110%	75-124%
2037-26-5	Toluene-D8	103%	105%	75-126%
460-00-4	4-Bromofluorobenzene	96%	98%	71-133%
17060-07-0	1,2-Dichloroethane-D4	115%	112%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [b]		0	ug/kg	

(a) Result is from Run# 2
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-5-7		
Lab Sample ID:	FA14869-17L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.0
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076496.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	ND		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.00092		0.0010	0.00028	mg/l	J
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	0.0017		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	0.0019		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0031		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-5-7		
Lab Sample ID:	FA14869-17L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.0
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.0058		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		83-118%
17060-07-0	1,2-Dichloroethane-D4	92%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	103%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-20-22		
Lab Sample ID:	FA14869-18	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.7
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098330.D	1	05/12/14	AH	n/a	n/a	VC3943
Run #2 [a]	C098306.D	1	05/09/14	AH	n/a	n/a	VC3942

	Initial Weight
Run #1	5.49 g
Run #2	4.80 g

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	29.9	58	17	ug/kg	J
107-02-8	Acrolein	ND	29	12	ug/kg	
107-13-1	Acrylonitrile	ND	29	9.0	ug/kg	
71-43-2	Benzene	ND	5.8	1.2	ug/kg	
108-86-1	Bromobenzene	ND	5.8	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	5.8	2.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	1.2	ug/kg	
75-25-2	Bromoform	ND	5.8	1.2	ug/kg	
104-51-8	n-Butylbenzene	ND	5.8	1.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.8	1.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.8	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	1.2	ug/kg	
75-00-3	Chloroethane	ND	5.8	2.6	ug/kg	
67-66-3	Chloroform	2.7	5.8	1.3	ug/kg	J
95-49-8	o-Chlorotoluene	ND	5.8	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.8	1.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	29	12	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	1.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	1.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	1.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.8	1.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.8	2.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.8	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	1.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	1.2	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.8	1.2	ug/kg	
123-91-1	1,4-Dioxane	ND	230	61	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.8	1.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	1.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	11.7	5.8	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-20-22		
Lab Sample ID:	FA14869-18	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	1.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.8	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.8	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.8	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	1.2	ug/kg	
591-78-6	2-Hexanone	ND	29	5.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.8	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	5.8	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.8	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	29	5.8	ug/kg	
74-83-9	Methyl bromide	ND	5.8	2.2	ug/kg	
74-87-3	Methyl chloride	ND	5.8	2.3	ug/kg	
74-95-3	Methylene bromide	ND	5.8	1.3	ug/kg	
75-09-2	Methylene chloride	ND	12	4.6	ug/kg	
78-93-3	Methyl ethyl ketone	ND	29	8.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.8	1.2	ug/kg	
91-20-3	Naphthalene	ND	5.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	ND	5.8	1.2	ug/kg	
100-42-5	Styrene	ND	5.8	1.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.8	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	1.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.8	1.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.8	2.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	1.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.8	1.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.8	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	1.5	ug/kg	
108-88-3	Toluene	ND	5.8	1.2	ug/kg	
79-01-6	Trichloroethylene	182	5.8	1.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	1.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	1.2	ug/kg	
108-05-4	Vinyl Acetate	ND	29	9.3	ug/kg	
	m,p-Xylene	ND	12	1.8	ug/kg	
95-47-6	o-Xylene	ND	5.8	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-20-22		
Lab Sample ID:	FA14869-18	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	111%	75-124%
2037-26-5	Toluene-D8	105%	105%	75-126%
460-00-4	4-Bromofluorobenzene	100%	99%	71-133%
17060-07-0	1,2-Dichloroethane-D4	108%	111%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [b]		0	ug/kg	

(a) Confirmation run.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-20-22		
Lab Sample ID:	FA14869-18L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.7
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076497.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	0.00046		0.0010	0.00024	mg/l	J
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.0024		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	0.0056		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0107		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-42-20-22		
Lab Sample ID:	FA14869-18L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	78.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.0150		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	95%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-8-10		
Lab Sample ID:	FA14869-19	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098307.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2	C098331.D	1	05/12/14	AH	n/a	n/a	VC3943

	Initial Weight	Methanol Aliquot
Run #1	5.15 g	
Run #2	5.48 g	100 ul

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	74.2	63	19	ug/kg	
107-02-8	Acrolein	ND	31	14	ug/kg	
107-13-1	Acrylonitrile	ND	31	9.8	ug/kg	
71-43-2	Benzene	ND	6.3	1.3	ug/kg	
108-86-1	Bromobenzene	ND	6.3	1.4	ug/kg	
74-97-5	Bromochloromethane	ND	6.3	2.4	ug/kg	
75-27-4	Bromodichloromethane	ND	6.3	1.3	ug/kg	
75-25-2	Bromoform	ND	6.3	1.4	ug/kg	
104-51-8	n-Butylbenzene	ND	6.3	1.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.3	1.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.3	1.3	ug/kg	
108-90-7	Chlorobenzene	ND	6.3	1.3	ug/kg	
75-00-3	Chloroethane	ND	6.3	2.8	ug/kg	
67-66-3	Chloroform	ND	6.3	1.4	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.3	1.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.3	1.3	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	31	13	ug/kg	
75-15-0	Carbon disulfide	ND	6.3	1.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.3	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.3	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.3	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.3	1.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.3	2.7	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.3	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.3	1.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.3	1.3	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.3	1.3	ug/kg	
123-91-1	1,4-Dioxane	ND	250	66	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.3	1.8	ug/kg	
124-48-1	Dibromochloromethane	ND	6.3	1.3	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.3	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	428 [a]	370	74	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-8-10		
Lab Sample ID:	FA14869-19	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.3	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.3	1.3	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.3	1.3	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.3	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.3	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.3	1.3	ug/kg	
100-41-4	Ethylbenzene	ND	6.3	1.3	ug/kg	
591-78-6	2-Hexanone	ND	31	6.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.3	1.3	ug/kg	
98-82-8	Isopropylbenzene	ND	6.3	1.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.3	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	31	6.3	ug/kg	
74-83-9	Methyl bromide	ND	6.3	2.3	ug/kg	
74-87-3	Methyl chloride	ND	6.3	2.5	ug/kg	
74-95-3	Methylene bromide	ND	6.3	1.4	ug/kg	
75-09-2	Methylene chloride	ND	13	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	31	9.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.3	1.3	ug/kg	
91-20-3	Naphthalene	ND	6.3	2.5	ug/kg	
103-65-1	n-Propylbenzene	ND	6.3	1.3	ug/kg	
100-42-5	Styrene	ND	6.3	1.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.3	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.3	1.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.3	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.3	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.3	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.3	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.3	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.3	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.3	1.3	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.3	1.6	ug/kg	
108-88-3	Toluene	ND	6.3	1.3	ug/kg	
79-01-6	Trichloroethylene	205	6.3	1.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.3	1.3	ug/kg	
75-01-4	Vinyl chloride	ND	6.3	1.3	ug/kg	
108-05-4	Vinyl Acetate	ND	31	10	ug/kg	
	m,p-Xylene	ND	13	2.0	ug/kg	
95-47-6	o-Xylene	ND	6.3	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-8-10		
Lab Sample ID:	FA14869-19	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	110%	75-124%
2037-26-5	Toluene-D8	102%	105%	75-126%
460-00-4	4-Bromofluorobenzene	98%	103%	71-133%
17060-07-0	1,2-Dichloroethane-D4	113%	112%	72-135%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-8-10		
Lab Sample ID:	FA14869-19L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	77.4
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076498.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	ND		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.0010		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.0016		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	ND		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0052		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	0.0017		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-8-10		
Lab Sample ID:	FA14869-19L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	77.4
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.0104		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-28-30		
Lab Sample ID:	FA14869-20	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	65.9
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098332.D	1	05/12/14	AH	n/a	n/a	VC3943
Run #2							

	Initial Weight
Run #1	5.38 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	71	21	ug/kg	
107-02-8	Acrolein	ND	35	15	ug/kg	
107-13-1	Acrylonitrile	ND	35	11	ug/kg	
71-43-2	Benzene	ND	7.1	1.4	ug/kg	
108-86-1	Bromobenzene	ND	7.1	1.5	ug/kg	
74-97-5	Bromochloromethane	ND	7.1	2.7	ug/kg	
75-27-4	Bromodichloromethane	ND	7.1	1.4	ug/kg	
75-25-2	Bromoform	ND	7.1	1.5	ug/kg	
104-51-8	n-Butylbenzene	ND	7.1	1.4	ug/kg	
135-98-8	sec-Butylbenzene	ND	7.1	1.4	ug/kg	
98-06-6	tert-Butylbenzene	ND	7.1	1.4	ug/kg	
108-90-7	Chlorobenzene	ND	7.1	1.4	ug/kg	
75-00-3	Chloroethane	ND	7.1	3.2	ug/kg	
67-66-3	Chloroform	ND	7.1	1.6	ug/kg	
95-49-8	o-Chlorotoluene	ND	7.1	1.4	ug/kg	
106-43-4	p-Chlorotoluene	ND	7.1	1.4	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	35	14	ug/kg	
75-15-0	Carbon disulfide	ND	7.1	1.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	7.1	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	7.1	1.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	7.1	1.4	ug/kg	
563-58-6	1,1-Dichloropropene	ND	7.1	1.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	7.1	3.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	7.1	2.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	7.1	1.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	7.1	1.4	ug/kg	
142-28-9	1,3-Dichloropropane	ND	7.1	1.4	ug/kg	
123-91-1	1,4-Dioxane	ND	280	75	ug/kg	
594-20-7	2,2-Dichloropropane	ND	7.1	2.0	ug/kg	
124-48-1	Dibromochloromethane	ND	7.1	1.4	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	7.1	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.7	7.1	1.4	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-28-30		
Lab Sample ID:	FA14869-20	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	65.9
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	7.1	1.4	ug/kg	
541-73-1	m-Dichlorobenzene	ND	7.1	1.4	ug/kg	
95-50-1	o-Dichlorobenzene	ND	7.1	1.4	ug/kg	
106-46-7	p-Dichlorobenzene	ND	7.1	1.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	7.1	1.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	7.1	1.4	ug/kg	
100-41-4	Ethylbenzene	ND	7.1	1.4	ug/kg	
591-78-6	2-Hexanone	ND	35	6.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	7.1	1.4	ug/kg	
98-82-8	Isopropylbenzene	ND	7.1	1.4	ug/kg	
99-87-6	p-Isopropyltoluene	ND	7.1	1.4	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	35	7.1	ug/kg	
74-83-9	Methyl bromide	ND	7.1	2.6	ug/kg	
74-87-3	Methyl chloride	ND	7.1	2.8	ug/kg	
74-95-3	Methylene bromide	ND	7.1	1.6	ug/kg	
75-09-2	Methylene chloride	ND	14	5.6	ug/kg	
78-93-3	Methyl ethyl ketone	ND	35	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	7.1	1.4	ug/kg	
91-20-3	Naphthalene	ND	7.1	2.8	ug/kg	
103-65-1	n-Propylbenzene	ND	7.1	1.4	ug/kg	
100-42-5	Styrene	ND	7.1	1.4	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	7.1	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	7.1	1.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.1	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	7.1	2.3	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.1	1.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	7.1	2.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.1	1.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	7.1	1.4	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	7.1	1.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	7.1	1.8	ug/kg	
108-88-3	Toluene	ND	7.1	1.4	ug/kg	
79-01-6	Trichloroethylene	10	7.1	1.4	ug/kg	
75-69-4	Trichlorofluoromethane	ND	7.1	1.4	ug/kg	
75-01-4	Vinyl chloride	ND	7.1	1.4	ug/kg	
108-05-4	Vinyl Acetate	ND	35	11	ug/kg	
	m,p-Xylene	ND	14	2.2	ug/kg	
95-47-6	o-Xylene	ND	7.1	1.5	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-28-30		
Lab Sample ID:	FA14869-20	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	65.9
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		75-124%
2037-26-5	Toluene-D8	103%		75-126%
460-00-4	4-Bromofluorobenzene	98%		71-133%
17060-07-0	1,2-Dichloroethane-D4	111%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-28-30		
Lab Sample ID:	FA14869-20L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	65.9
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076499.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	ND		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	0.00052		0.0010	0.00026	mg/l	J
108-88-3	Toluene	0.00042		0.0010	0.00020	mg/l	J
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-43-28-30		
Lab Sample ID:	FA14869-20L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	65.9
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	ND		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-5-7		
Lab Sample ID:	FA14869-21	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098309.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2							

	Initial Weight
Run #1	5.11 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	185	60	18	ug/kg	
107-02-8	Acrolein	ND	30	13	ug/kg	
107-13-1	Acrylonitrile	ND	30	9.4	ug/kg	
71-43-2	Benzene	ND	6.0	1.2	ug/kg	
108-86-1	Bromobenzene	ND	6.0	1.3	ug/kg	
74-97-5	Bromochloromethane	ND	6.0	2.3	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	1.2	ug/kg	
75-25-2	Bromoform	ND	6.0	1.3	ug/kg	
104-51-8	n-Butylbenzene	ND	6.0	1.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.0	1.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.0	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	1.2	ug/kg	
75-00-3	Chloroethane	ND	6.0	2.7	ug/kg	
67-66-3	Chloroform	3.8	6.0	1.4	ug/kg	J
95-49-8	o-Chlorotoluene	ND	6.0	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.0	1.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	30	12	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	1.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.0	1.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.0	1.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.0	1.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.0	2.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.0	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.0	1.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.0	1.2	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.0	1.2	ug/kg	
123-91-1	1,4-Dioxane	ND	240	64	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.0	1.7	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	1.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.0	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	12.5	6.0	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-5-7		
Lab Sample ID:	FA14869-21	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	1.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.0	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.0	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.0	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.0	1.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	6.0	1.2	ug/kg	
591-78-6	2-Hexanone	ND	30	5.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.0	1.2	ug/kg	
98-82-8	Isopropylbenzene	ND	6.0	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.0	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	30	6.0	ug/kg	
74-83-9	Methyl bromide	ND	6.0	2.3	ug/kg	
74-87-3	Methyl chloride	ND	6.0	2.4	ug/kg	
74-95-3	Methylene bromide	ND	6.0	1.4	ug/kg	
75-09-2	Methylene chloride	ND	12	4.8	ug/kg	
78-93-3	Methyl ethyl ketone	9.1	30	9.0	ug/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	6.0	1.2	ug/kg	
91-20-3	Naphthalene	ND	6.0	2.4	ug/kg	
103-65-1	n-Propylbenzene	ND	6.0	1.2	ug/kg	
100-42-5	Styrene	ND	6.0	1.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.0	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.0	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.0	1.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.0	1.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.0	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.0	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.0	1.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.0	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.0	1.5	ug/kg	
108-88-3	Toluene	ND	6.0	1.2	ug/kg	
79-01-6	Trichloroethylene	201	6.0	1.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.0	1.2	ug/kg	
75-01-4	Vinyl chloride	ND	6.0	1.2	ug/kg	
108-05-4	Vinyl Acetate	ND	30	9.7	ug/kg	
	m,p-Xylene	ND	12	1.9	ug/kg	
95-47-6	o-Xylene	ND	6.0	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-5-7		
Lab Sample ID:	FA14869-21	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	81.1
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		75-124%
2037-26-5	Toluene-D8	108%		75-126%
460-00-4	4-Bromofluorobenzene	100%		71-133%
17060-07-0	1,2-Dichloroethane-D4	112%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-5-7		
Lab Sample ID:	FA14869-21L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	81.1
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076500.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	0.0501		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.0077		0.0010	0.00028	mg/l	
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	ND		0.0010	0.00026	mg/l	
108-88-3	Toluene	0.0791		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-5-7		
Lab Sample ID:	FA14869-21L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	81.1
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.0730		0.0030	0.00066	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-23-25		
Lab Sample ID:	FA14869-22	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	68.7
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098310.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2							

	Initial Weight
Run #1	5.46 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	67	20	ug/kg	
107-02-8	Acrolein	ND	33	14	ug/kg	
107-13-1	Acrylonitrile	ND	33	10	ug/kg	
71-43-2	Benzene	ND	6.7	1.3	ug/kg	
108-86-1	Bromobenzene	ND	6.7	1.5	ug/kg	
74-97-5	Bromochloromethane	ND	6.7	2.6	ug/kg	
75-27-4	Bromodichloromethane	ND	6.7	1.3	ug/kg	
75-25-2	Bromoform	ND	6.7	1.4	ug/kg	
104-51-8	n-Butylbenzene	ND	6.7	1.3	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.7	1.3	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.7	1.3	ug/kg	
108-90-7	Chlorobenzene	ND	6.7	1.3	ug/kg	
75-00-3	Chloroethane	ND	6.7	3.0	ug/kg	
67-66-3	Chloroform	ND	6.7	1.5	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.7	1.3	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.7	1.3	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	33	13	ug/kg	
75-15-0	Carbon disulfide	ND	6.7	1.3	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.7	1.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.7	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.7	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.7	1.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.7	2.8	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.7	2.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.7	1.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.7	1.3	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.7	1.3	ug/kg	
123-91-1	1,4-Dioxane	ND	270	71	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.7	1.9	ug/kg	
124-48-1	Dibromochloromethane	ND	6.7	1.3	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.7	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.7	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-23-25		
Lab Sample ID:	FA14869-22	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	68.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.7	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.7	1.3	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.7	1.3	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.7	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.7	1.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.7	1.3	ug/kg	
100-41-4	Ethylbenzene	ND	6.7	1.3	ug/kg	
591-78-6	2-Hexanone	ND	33	6.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.7	1.3	ug/kg	
98-82-8	Isopropylbenzene	ND	6.7	1.3	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.7	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	33	6.7	ug/kg	
74-83-9	Methyl bromide	ND	6.7	2.5	ug/kg	
74-87-3	Methyl chloride	ND	6.7	2.7	ug/kg	
74-95-3	Methylene bromide	ND	6.7	1.5	ug/kg	
75-09-2	Methylene chloride	ND	13	5.3	ug/kg	
78-93-3	Methyl ethyl ketone	ND	33	10	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.7	1.3	ug/kg	
91-20-3	Naphthalene	ND	6.7	2.7	ug/kg	
103-65-1	n-Propylbenzene	ND	6.7	1.3	ug/kg	
100-42-5	Styrene	ND	6.7	1.3	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.7	1.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.7	1.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.7	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.7	2.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.7	1.6	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.7	2.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.7	1.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.7	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.7	1.3	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.7	1.7	ug/kg	
108-88-3	Toluene	ND	6.7	1.3	ug/kg	
79-01-6	Trichloroethylene	9.8	6.7	1.4	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.7	1.3	ug/kg	
75-01-4	Vinyl chloride	ND	6.7	1.4	ug/kg	
108-05-4	Vinyl Acetate	ND	33	11	ug/kg	
	m,p-Xylene	ND	13	2.1	ug/kg	
95-47-6	o-Xylene	ND	6.7	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-23-25		
Lab Sample ID:	FA14869-22	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	68.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		75-124%
2037-26-5	Toluene-D8	104%		75-126%
460-00-4	4-Bromofluorobenzene	99%		71-133%
17060-07-0	1,2-Dichloroethane-D4	112%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-23-25		
Lab Sample ID:	FA14869-22L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	68.7
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076501.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
67-64-1	Acetone	ND		0.025	0.011	mg/l	
71-43-2	Benzene	ND		0.0010	0.00024	mg/l	
75-27-4	Bromodichloromethane	ND		0.0010	0.00026	mg/l	
75-25-2	Bromoform	ND		0.0010	0.00038	mg/l	
108-90-7	Chlorobenzene	ND		0.0010	0.00024	mg/l	
75-00-3	Chloroethane	ND		0.0020	0.00050	mg/l	
67-66-3	Chloroform	ND		0.0010	0.00031	mg/l	
75-15-0	Carbon disulfide	ND		0.0020	0.00020	mg/l	
56-23-5	Carbon tetrachloride	ND		0.0010	0.00040	mg/l	
75-34-3	1,1-Dichloroethane	ND		0.0010	0.00026	mg/l	
75-35-4	1,1-Dichloroethylene	ND		0.0010	0.00025	mg/l	
107-06-2	1,2-Dichloroethane	ND		0.0010	0.00024	mg/l	
78-87-5	1,2-Dichloropropane	ND		0.0010	0.00036	mg/l	
124-48-1	Dibromochloromethane	ND		0.0010	0.00036	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND		0.0010	0.00033	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND		0.0010	0.00034	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.00032		0.0010	0.00028	mg/l	J
591-78-6	2-Hexanone	ND		0.010	0.0020	mg/l	
108-10-1	4-Methyl-2-pentanone	ND		0.0050	0.0010	mg/l	
74-83-9	Methyl bromide	ND		0.0020	0.00054	mg/l	
74-87-3	Methyl chloride	ND		0.0020	0.00053	mg/l	
75-09-2	Methylene chloride	ND		0.0050	0.0020	mg/l	
78-93-3	Methyl ethyl ketone	ND		0.0050	0.0015	mg/l	
100-42-5	Styrene	ND		0.0010	0.00023	mg/l	
71-55-6	1,1,1-Trichloroethane	ND		0.0010	0.00034	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.0010	0.00027	mg/l	
79-00-5	1,1,2-Trichloroethane	ND		0.0010	0.00032	mg/l	
127-18-4	Tetrachloroethylene	0.00043		0.0010	0.00026	mg/l	J
108-88-3	Toluene	0.0019		0.0010	0.00020	mg/l	
79-01-6	Trichloroethylene	ND		0.0010	0.00030	mg/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-44-23-25		
Lab Sample ID:	FA14869-22L	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B SW846 1312	**Percent Solids:**	68.7
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA TCL List **SPLP Leachate method SW846 1312**

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND		0.0010	0.00033	mg/l	
1330-20-7	Xylene (total)	0.0014		0.0030	0.00066	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (not available) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA14869-23	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
		Percent Solids:	78.2
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.11 U	1.1	0.11	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Beryllium	0.18 B	0.28	0.028	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Copper	18.3	1.4	0.055	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Manganese	125	0.83	0.028	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Nickel	3.1	2.2	0.028	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Thallium	0.083 U	0.55	0.083	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]
Zinc	7.7	1.1	0.17	mg/kg	1	05/13/14	05/13/14	LM	SW846 6010C [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA11595
(2) Prep QC Batch: MP27247

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA14869-24	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6 [a]
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098311.D	1	05/09/14	AH	n/a	n/a	VC3942
Run #2	C098333.D	1	05/12/14	AH	n/a	n/a	VC3943

	Initial Weight	Methanol Aliquot
Run #1	5.12 g	
Run #2	5.32 g	100 ul

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.7	62	19	ug/kg	J
107-02-8	Acrolein	ND	31	13	ug/kg	
107-13-1	Acrylonitrile	ND	31	9.7	ug/kg	
71-43-2	Benzene	ND	6.2	1.2	ug/kg	
108-86-1	Bromobenzene	ND	6.2	1.4	ug/kg	
74-97-5	Bromochloromethane	ND	6.2	2.4	ug/kg	
75-27-4	Bromodichloromethane	ND	6.2	1.2	ug/kg	
75-25-2	Bromoform	ND	6.2	1.3	ug/kg	
104-51-8	n-Butylbenzene	ND	6.2	1.2	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.2	1.2	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.2	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	6.2	1.2	ug/kg	
75-00-3	Chloroethane	ND	6.2	2.8	ug/kg	
67-66-3	Chloroform	3.1	6.2	1.4	ug/kg	J
95-49-8	o-Chlorotoluene	ND	6.2	1.2	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.2	1.2	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	31	12	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	1.2	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.2	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.2	1.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.2	1.2	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.2	1.4	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.2	2.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	6.2	2.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.2	1.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.2	1.2	ug/kg	
142-28-9	1,3-Dichloropropane	ND	6.2	1.2	ug/kg	
123-91-1	1,4-Dioxane	ND	250	66	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.2	1.8	ug/kg	
124-48-1	Dibromochloromethane	ND	6.2	1.2	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.2	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	21.3	6.2	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA14869-24	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6 [a]
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	6.2	1.2	ug/kg	
541-73-1	m-Dichlorobenzene	ND	6.2	1.2	ug/kg	
95-50-1	o-Dichlorobenzene	ND	6.2	1.2	ug/kg	
106-46-7	p-Dichlorobenzene	ND	6.2	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.2	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.2	1.2	ug/kg	
100-41-4	Ethylbenzene	ND	6.2	1.2	ug/kg	
591-78-6	2-Hexanone	ND	31	6.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.2	1.3	ug/kg	
98-82-8	Isopropylbenzene	ND	6.2	1.2	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.2	1.2	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	31	6.2	ug/kg	
74-83-9	Methyl bromide	ND	6.2	2.3	ug/kg	
74-87-3	Methyl chloride	ND	6.2	2.5	ug/kg	
74-95-3	Methylene bromide	ND	6.2	1.4	ug/kg	
75-09-2	Methylene chloride	ND	12	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	31	9.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	6.2	1.2	ug/kg	
91-20-3	Naphthalene	ND	6.2	2.5	ug/kg	
103-65-1	n-Propylbenzene	ND	6.2	1.2	ug/kg	
100-42-5	Styrene	ND	6.2	1.2	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.2	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.2	1.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.2	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.2	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.2	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.2	1.2	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.2	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.2	1.6	ug/kg	
108-88-3	Toluene	ND	6.2	1.2	ug/kg	
79-01-6	Trichloroethylene	464 [b]	370	75	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.2	1.2	ug/kg	
75-01-4	Vinyl chloride	ND	6.2	1.3	ug/kg	
108-05-4	Vinyl Acetate	ND	31	10	ug/kg	
	m,p-Xylene	ND	12	2.0	ug/kg	
95-47-6	o-Xylene	ND	6.2	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA14869-24	**Date Sampled:**	05/07/14
Matrix:	SO - Soil	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	78.6 [a]
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%	108%	75-124%
2037-26-5	Toluene-D8	104%	106%	75-126%
460-00-4	4-Bromofluorobenzene	98%	102%	71-133%
17060-07-0	1,2-Dichloroethane-D4	115%	112%	72-135%

CAS No.	Tentatively Identified Compounds [c]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) data from -13
(b) Result is from Run# 2
(c) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RB-1		
Lab Sample ID:	FA14869-25	**Date Sampled:**	05/07/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25593.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
123-91-1	1,4-Dioxane	ND	200	20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RB-1		
Lab Sample ID:	FA14869-25	**Date Sampled:**	05/07/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	2.3	5.0	2.0	ug/l	J
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.37	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RB-1		
Lab Sample ID:	FA14869-25	**Date Sampled:**	05/07/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/09/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	113%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	91%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RB-1		
Lab Sample ID:	FA14869-25	**Date Sampled:**	05/07/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/09/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	2.3 U	6.0	2.3	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	0.50 U	4.0	0.50	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	4.7 B	25	1.0	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.0 B	15	1.0	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	0.50 U	40	0.50	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	2.0 U	10	2.0	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	13.2 B	20	3.0	ug/l	1	05/14/14	05/14/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11598
(2) Prep QC Batch: MP27252

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA14869 PAGE 1 OF 3

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 Situs Ct. Suite 250
City: Raleigh State: NC Zip: 27606
Project Contact: E-mail: Lane.dorman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): G. Kanellis

Project Information

Project Name: ECI Elon
Street: 100 Rogers Rd
City: Elon State: NC
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	Total Sb, Be, Cu, Mn, Ni, Tl, Zn	HSL metals	VOC 8260
1	HA-4-0.1	5/6/14	0900	GK	SO	1		X								X		
2	BG-1-5		1000														X	
3	BG-1-15		1010															
4	BG-2-5		1100															
5	BG-2-15		1115															
6	BG-3-5		1150															
7	BG-3-15		1200															
8	BG-4-5		1215															
9	BG-4-15		1230															
10	BG-5-5		1345															
11	BG-5-15		1355															
12	Trip Blank-2	-	-	-	WW	2		X										X

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [X] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH.NC

SVC CENTER

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	5/8/14 0930	2 Brent Vader	3 Brent Vader	5/8/14 1700	4 FX
Relinquished by: 5 FX	Date Time: 5-9-14	Received By: 6 J-Corne (ASE) 14:30	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 2 Cooler Temperature (s) Celsius: 3.0 3.6

4.1
4

FA14869: Chain of Custody
Page 1 of 6

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

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TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA14869 PAGE 2 OF 3

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 Situs Ct. Suite 250
City: Raleigh State: NC Zip: 27606
Project Contact: Lara-Dorman E-mail: @erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): G. Kanellis

Project Information

Project Name: ECI Elon
Street: 100 Rogo Dr.
City: Elon State: NC
Project #
Fax #
Client Purchase Order #

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH-ZNAC	DI Water	MeOH	VOC 8260 + 10 TICs	1,4 Dioxane 8260 SIM	SPLP VOC	* Total Sb, Be, Cu, Mn, Ni, Tl, Zn
13	GP-40-5-7	5/7/14	1545	GK	SO	4		1						1	2	x	x	x	
14	GP-40-18-20		1555			4										x	x	x	
15	GP-41-5-7		1400			1													x
16	GP-41-23-25		1410			1													x
17	GP-42-5-7		1715			4		1						1	2	x	x	x	
18	GP-42-20-22		1725																
19	GP-43-8-10		1930																
20	GP-43-28-30		1940																
21	GP-44-5-7		2100																
22	GP-44-23-25		2110																
23	~~GP-45~~ Dup-1		1405			1		1											x
24	Dup-2		1550			4		1						1	2	x	x	[illegible]	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH, NC

SVC CENTER

Comments / Remarks

* Hold GP-41-23-25 pending results of GP-41-5-7 and ERM approval

** Dup-2: take moisture content from GP-40-5-7

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 [illegible]	5/8/14 0730	2 [illegible]	3 [illegible]	5/8/14 1700	4 FX
Relinquished by: 5 FX	Date Time: 5-9-14	Received By: 6 [illegible] (ALSE) 14:30	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: _____

4.1
4

FA14869: Chain of Custody
Page 2 of 6

Accutest Laboratories Southeast
Chain of Custody

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Accutest JOB # FA14869 PAGE 3 OF 3

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 Situs Ct. Suite 250
City: Raleigh State: NC Zip: 27606
Project Contact: E-mail: Lane.Dorman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): G. Kanellis

Project Information

Project Name: ECI Elon
Street: HO 100 Rego Dr.
City: Elon State: NC
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	Total Sb, Be, Cu, Mn, Ni, Tl, Zn	VOC 8260 + 10 TICs	1,4 Dioxane 8260 SIM
25	RB-1	5/7/14	1830	GK	WW	7			6		1					X	X	X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH, NC

SVC CENTER

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	5/8/14 0920	2 Brent Rodes	3 Brent Rodes	5/8/14 1700	4 FX
Relinquished by: 5 FX	Date Time: 5-9-14	Received By: 6 Cooper (Alle) 14:30	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius:

4.1
4

FA14869: Chain of Custody
Page 3 of 6

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA14869 CLIENT: EEM PROJECT: EC1

DATE/TIME RECEIVED 05-09-14 14:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7988 0082 1000

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? 9

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.6 3.2
- [ ] CORRECTED TEMPS: 3.0 3.6

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [X] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: NO SOIL JAR RECEIVED FOR SAMPLE #24

TECHNICIAN SIGNATURE/DATE R Willm 05-09-14 REVIEWER SIGNATURE/DATE R Willm 05-09-14

RS 04/14 receipt confirmation 041514.xls

4.1

4

FA14869: Chain of Custody

Page 4 of 6

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx. Express

J1410140207032 6

Ship Date: 08MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

BILL SENDER

5 of 5

MPS# 7988 0136 7130
0263
Mstr# 7988 0136 6226
0201

FRI - 09 MAY AA
STANDARD OVERNIGHT

NB TIXA

32811
FL-US
MCO

522G1/6203/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

4.1 4

FA14869: Chain of Custody
Page 5 of 6

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J14101402070326

Ship Date: 08MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

BILL SENDER

FRI - 09 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7988 0082 1000

NB TIXA

32811
FL-US
MCO

522G1/62D3/F220

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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-MB	C098300.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/kg	
107-02-8	Acrolein	ND	25	11	ug/kg	
107-13-1	Acrylonitrile	ND	25	7.8	ug/kg	
71-43-2	Benzene	ND	5.0	1.0	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.1	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	1.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.3	ug/kg	
67-66-3	Chloroform	ND	5.0	1.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	25	10	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/kg	
123-91-1	1,4-Dioxane	ND	200	53	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-MB	C098300.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
591-78-6	2-Hexanone	ND	25	4.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.9	ug/kg	
74-87-3	Methyl chloride	ND	5.0	2.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.2	ug/kg	
75-09-2	Methylene chloride	7.6	10	4.0	ug/kg	J
78-93-3	Methyl ethyl ketone	ND	25	7.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
108-05-4	Vinyl Acetate	ND	25	8.0	ug/kg	
	m,p-Xylene	ND	10	1.6	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-MB	C098300.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	75-124%
2037-26-5	Toluene-D8	103%	75-126%
460-00-4	4-Bromofluorobenzene	99%	71-133%
17060-07-0	1,2-Dichloroethane-D4	106%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-MB	C098321.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/kg	
107-02-8	Acrolein	ND	25	11	ug/kg	
107-13-1	Acrylonitrile	ND	25	7.8	ug/kg	
71-43-2	Benzene	ND	5.0	1.0	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.1	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	1.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.3	ug/kg	
67-66-3	Chloroform	ND	5.0	1.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	25	10	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/kg	
123-91-1	1,4-Dioxane	ND	200	53	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-MB	C098321.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
591-78-6	2-Hexanone	ND	25	4.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.9	ug/kg	
74-87-3	Methyl chloride	ND	5.0	2.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.2	ug/kg	
75-09-2	Methylene chloride	4.8	10	4.0	ug/kg	J
78-93-3	Methyl ethyl ketone	ND	25	7.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
108-05-4	Vinyl Acetate	ND	25	8.0	ug/kg	
	m,p-Xylene	ND	10	1.6	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-MB	C098321.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	75-124%
2037-26-5	Toluene-D8	102%	75-126%
460-00-4	4-Bromofluorobenzene	97%	71-133%
17060-07-0	1,2-Dichloroethane-D4	108%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
123-91-1	1,4-Dioxane	ND	200	20	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.65	1.0	0.50	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

Leachate Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51578-LB	N0076489.D	1	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.66	ug/l	

Leachate Blank Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51578-LB	N0076489.D	1	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	102%	83-118%

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-BS	C098299.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	285	114	61-152
107-02-8	Acrolein	250	299	120	48-178
107-13-1	Acrylonitrile	250	268	107	66-134
71-43-2	Benzene	50	52.5	105	76-126
108-86-1	Bromobenzene	50	53.6	107	76-122
74-97-5	Bromochloromethane	50	50.1	100	77-120
75-27-4	Bromodichloromethane	50	53.6	107	74-130
75-25-2	Bromoform	50	54.4	109	76-127
104-51-8	n-Butylbenzene	50	55.1	110	71-128
135-98-8	sec-Butylbenzene	50	56.7	113	79-135
98-06-6	tert-Butylbenzene	50	58.6	117	77-133
108-90-7	Chlorobenzene	50	57.0	114	81-129
75-00-3	Chloroethane	50	53.4	107	68-133
67-66-3	Chloroform	50	59.4	119	72-123
95-49-8	o-Chlorotoluene	50	57.4	115	77-129
106-43-4	p-Chlorotoluene	50	60.3	121	80-134
110-75-8	2-Chloroethyl vinyl ether	250	276	110	45-159
75-15-0	Carbon disulfide	50	57.6	115	72-122
56-23-5	Carbon tetrachloride	50	51.3	103	78-133
75-34-3	1,1-Dichloroethane	50	59.0	118	73-125
75-35-4	1,1-Dichloroethylene	50	52.3	105	81-136
563-58-6	1,1-Dichloropropene	50	53.5	107	75-130
96-12-8	1,2-Dibromo-3-chloropropane	50	55.5	111	70-137
106-93-4	1,2-Dibromoethane	50	55.1	110	77-126
107-06-2	1,2-Dichloroethane	50	53.6	107	74-128
78-87-5	1,2-Dichloropropane	50	52.0	104	74-125
142-28-9	1,3-Dichloropropane	50	54.1	108	76-122
123-91-1	1,4-Dioxane	1000	1380	138	56-152
594-20-7	2,2-Dichloropropane	50	63.7	127	77-133
124-48-1	Dibromochloromethane	50	55.2	110	76-127
75-71-8	Dichlorodifluoromethane	50	50.8	102	68-168
156-59-2	cis-1,2-Dichloroethylene	50	50.9	102	74-126
10061-01-5	cis-1,3-Dichloropropene	50	52.8	106	80-123
541-73-1	m-Dichlorobenzene	50	58.8	118	81-129
95-50-1	o-Dichlorobenzene	50	57.8	116	80-129
106-46-7	p-Dichlorobenzene	50	53.3	107	76-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-BS	C098299.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
156-60-5	trans-1,2-Dichloroethylene	50	49.0	98	70-127
10061-02-6	trans-1,3-Dichloropropene	50	57.5	115	75-131
100-41-4	Ethylbenzene	50	52.5	105	77-123
591-78-6	2-Hexanone	250	293	117	72-133
87-68-3	Hexachlorobutadiene	50	56.7	113	74-136
98-82-8	Isopropylbenzene	50	59.3	119	80-136
99-87-6	p-Isopropyltoluene	50	56.3	113	77-131
108-10-1	4-Methyl-2-pentanone	250	282	113	76-132
74-83-9	Methyl bromide	50	59.6	119	65-139
74-87-3	Methyl chloride	50	52.5	105	71-144
74-95-3	Methylene bromide	50	52.3	105	74-124
75-09-2	Methylene chloride	50	57.4	115	74-137
78-93-3	Methyl ethyl ketone	250	277	111	75-137
1634-04-4	Methyl Tert Butyl Ether	50	50.6	101	77-120
91-20-3	Naphthalene	50	57.9	116	79-129
103-65-1	n-Propylbenzene	50	58.7	117	80-135
100-42-5	Styrene	50	55.3	111	78-125
630-20-6	1,1,1,2-Tetrachloroethane	50	55.6	111	78-126
71-55-6	1,1,1-Trichloroethane	50	52.8	106	70-129
79-34-5	1,1,2,2-Tetrachloroethane	50	53.4	107	71-126
79-00-5	1,1,2-Trichloroethane	50	52.9	106	74-124
87-61-6	1,2,3-Trichlorobenzene	50	54.0	108	77-128
96-18-4	1,2,3-Trichloropropane	50	55.4	111	74-127
120-82-1	1,2,4-Trichlorobenzene	50	54.9	110	78-130
95-63-6	1,2,4-Trimethylbenzene	50	53.7	107	74-123
108-67-8	1,3,5-Trimethylbenzene	50	52.3	105	73-122
127-18-4	Tetrachloroethylene	50	51.0	102	79-130
108-88-3	Toluene	50	53.5	107	76-124
79-01-6	Trichloroethylene	50	51.8	104	75-128
75-69-4	Trichlorofluoromethane	50	51.0	102	73-145
75-01-4	Vinyl chloride	50	51.9	104	76-141
108-05-4	Vinyl Acetate	250	297	119	48-164
	m,p-Xylene	100	108	108	80-128
95-47-6	o-Xylene	50	59.8	120	80-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3942-BS	C098299.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	75-124%
2037-26-5	Toluene-D8	104%	75-126%
460-00-4	4-Bromofluorobenzene	100%	71-133%
17060-07-0	1,2-Dichloroethane-D4	102%	72-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-BS	C098320.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	263	105	61-152
107-02-8	Acrolein	250	286	114	48-178
107-13-1	Acrylonitrile	250	262	105	66-134
71-43-2	Benzene	50	52.3	105	76-126
108-86-1	Bromobenzene	50	52.6	105	76-122
74-97-5	Bromochloromethane	50	50.1	100	77-120
75-27-4	Bromodichloromethane	50	52.4	105	74-130
75-25-2	Bromoform	50	52.8	106	76-127
104-51-8	n-Butylbenzene	50	56.9	114	71-128
135-98-8	sec-Butylbenzene	50	58.1	116	79-135
98-06-6	tert-Butylbenzene	50	59.3	119	77-133
108-90-7	Chlorobenzene	50	55.6	111	81-129
75-00-3	Chloroethane	50	53.8	108	68-133
67-66-3	Chloroform	50	59.1	118	72-123
95-49-8	o-Chlorotoluene	50	57.7	115	77-129
106-43-4	p-Chlorotoluene	50	60.8	122	80-134
110-75-8	2-Chloroethyl vinyl ether	250	262	105	45-159
75-15-0	Carbon disulfide	50	58.6	117	72-122
56-23-5	Carbon tetrachloride	50	51.7	103	78-133
75-34-3	1,1-Dichloroethane	50	59.9	120	73-125
75-35-4	1,1-Dichloroethylene	50	53.6	107	81-136
563-58-6	1,1-Dichloropropene	50	54.1	108	75-130
96-12-8	1,2-Dibromo-3-chloropropane	50	56.7	113	70-137
106-93-4	1,2-Dibromoethane	50	53.2	106	77-126
107-06-2	1,2-Dichloroethane	50	53.7	107	74-128
78-87-5	1,2-Dichloropropane	50	51.4	103	74-125
142-28-9	1,3-Dichloropropane	50	53.6	107	76-122
123-91-1	1,4-Dioxane	1000	1230	123	56-152
594-20-7	2,2-Dichloropropane	50	66.7	133	77-133
124-48-1	Dibromochloromethane	50	55.2	110	76-127
75-71-8	Dichlorodifluoromethane	50	49.2	98	68-168
156-59-2	cis-1,2-Dichloroethylene	50	51.0	102	74-126
10061-01-5	cis-1,3-Dichloropropene	50	51.6	103	80-123
541-73-1	m-Dichlorobenzene	50	58.9	118	81-129
95-50-1	o-Dichlorobenzene	50	57.9	116	80-129
106-46-7	p-Dichlorobenzene	50	53.4	107	76-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-BS	C098320.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
156-60-5	trans-1,2-Dichloroethylene	50	50.2	100	70-127
10061-02-6	trans-1,3-Dichloropropene	50	57.6	115	75-131
100-41-4	Ethylbenzene	50	53.1	106	77-123
591-78-6	2-Hexanone	250	282	113	72-133
87-68-3	Hexachlorobutadiene	50	57.1	114	74-136
98-82-8	Isopropylbenzene	50	59.9	120	80-136
99-87-6	p-Isopropyltoluene	50	57.3	115	77-131
108-10-1	4-Methyl-2-pentanone	250	278	111	76-132
74-83-9	Methyl bromide	50	60.1	120	65-139
74-87-3	Methyl chloride	50	50.5	101	71-144
74-95-3	Methylene bromide	50	51.8	104	74-124
75-09-2	Methylene chloride	50	56.3	113	74-137
78-93-3	Methyl ethyl ketone	250	260	104	75-137
1634-04-4	Methyl Tert Butyl Ether	50	50.0	100	77-120
91-20-3	Naphthalene	50	58.7	117	79-129
103-65-1	n-Propylbenzene	50	60.0	120	80-135
100-42-5	Styrene	50	55.1	110	78-125
630-20-6	1,1,1,2-Tetrachloroethane	50	54.6	109	78-126
71-55-6	1,1,1-Trichloroethane	50	53.5	107	70-129
79-34-5	1,1,2,2-Tetrachloroethane	50	53.8	108	71-126
79-00-5	1,1,2-Trichloroethane	50	53.6	107	74-124
87-61-6	1,2,3-Trichlorobenzene	50	54.8	110	77-128
96-18-4	1,2,3-Trichloropropane	50	54.1	108	74-127
120-82-1	1,2,4-Trichlorobenzene	50	55.0	110	78-130
95-63-6	1,2,4-Trimethylbenzene	50	53.9	108	74-123
108-67-8	1,3,5-Trimethylbenzene	50	53.2	106	73-122
127-18-4	Tetrachloroethylene	50	51.6	103	79-130
108-88-3	Toluene	50	54.3	109	76-124
79-01-6	Trichloroethylene	50	51.8	104	75-128
75-69-4	Trichlorofluoromethane	50	49.6	99	73-145
75-01-4	Vinyl chloride	50	50.0	100	76-141
108-05-4	Vinyl Acetate	250	297	119	48-164
	m,p-Xylene	100	108	108	80-128
95-47-6	o-Xylene	50	59.6	119	80-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3943-BS	C098320.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	75-124%
2037-26-5	Toluene-D8	105%	75-126%
460-00-4	4-Bromofluorobenzene	99%	71-133%
17060-07-0	1,2-Dichloroethane-D4	102%	72-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	137	110	50-147
107-02-8	Acrolein	125	125	100	31-154
107-13-1	Acrylonitrile	125	149	119	58-126
71-43-2	Benzene	25	23.9	96	81-122
108-86-1	Bromobenzene	25	21.9	88	80-121
74-97-5	Bromochloromethane	25	21.0	84	76-123
75-27-4	Bromodichloromethane	25	21.4	86	79-123
75-25-2	Bromoform	25	21.7	87	66-123
104-51-8	n-Butylbenzene	25	23.3	93	79-126
135-98-8	sec-Butylbenzene	25	27.2	109	83-133
98-06-6	tert-Butylbenzene	25	26.4	106	80-133
108-90-7	Chlorobenzene	25	24.7	99	82-124
75-00-3	Chloroethane	25	26.6	106	62-144
67-66-3	Chloroform	25	23.7	95	80-124
95-49-8	o-Chlorotoluene	25	25.9	104	81-127
106-43-4	p-Chlorotoluene	25	27.0	108	83-130
110-75-8	2-Chloroethyl vinyl ether	125	117	94	56-122
75-15-0	Carbon disulfide	25	23.8	95	66-148
56-23-5	Carbon tetrachloride	25	21.2	85	76-136
75-34-3	1,1-Dichloroethane	25	24.4	98	81-122
75-35-4	1,1-Dichloroethylene	25	23.9	96	78-137
563-58-6	1,1-Dichloropropene	25	25.6	102	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	23.5	94	64-123
106-93-4	1,2-Dibromoethane	25	21.8	87	75-120
107-06-2	1,2-Dichloroethane	25	23.1	92	75-125
78-87-5	1,2-Dichloropropane	25	23.3	93	76-124
142-28-9	1,3-Dichloropropane	25	23.1	92	80-118
123-91-1	1,4-Dioxane	500	387	77	48-146
594-20-7	2,2-Dichloropropane	25	25.9	104	74-139
124-48-1	Dibromochloromethane	25	19.5	78	78-122
75-71-8	Dichlorodifluoromethane	25	32.5	130	42-167
156-59-2	cis-1,2-Dichloroethylene	25	22.0	88	78-120
10061-01-5	cis-1,3-Dichloropropene	25	21.1	84	75-118
541-73-1	m-Dichlorobenzene	25	24.2	97	84-125
95-50-1	o-Dichlorobenzene	25	22.7	91	82-124
106-46-7	p-Dichlorobenzene	25	22.3	89	78-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-60-5	trans-1,2-Dichloroethylene	25	23.7	95	76-127
10061-02-6	trans-1,3-Dichloropropene	25	24.5	98	80-120
100-41-4	Ethylbenzene	25	23.7	95	81-121
591-78-6	2-Hexanone	125	121	97	61-129
87-68-3	Hexachlorobutadiene	25	24.2	97	75-142
98-82-8	Isopropylbenzene	25	23.8	95	83-132
99-87-6	p-Isopropyltoluene	25	24.2	97	79-130
108-10-1	4-Methyl-2-pentanone	125	121	97	66-122
74-83-9	Methyl bromide	25	29.6	118	59-143
74-87-3	Methyl chloride	25	32.2	129	50-159
74-95-3	Methylene bromide	25	22.8	91	78-119
75-09-2	Methylene chloride	25	24.3	97	69-135
78-93-3	Methyl ethyl ketone	125	113	90	56-143
1634-04-4	Methyl Tert Butyl Ether	25	22.0	88	72-117
91-20-3	Naphthalene	25	22.6	90	63-132
103-65-1	n-Propylbenzene	25	27.2	109	82-133
100-42-5	Styrene	25	19.4	78	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	23.8	95	77-122
71-55-6	1,1,1-Trichloroethane	25	24.1	96	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	24.5	98	72-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	76-119
87-61-6	1,2,3-Trichlorobenzene	25	24.6	98	68-131
96-18-4	1,2,3-Trichloropropane	25	22.1	88	77-120
120-82-1	1,2,4-Trichlorobenzene	25	22.0	88	73-129
95-63-6	1,2,4-Trimethylbenzene	25	24.1	96	79-120
108-67-8	1,3,5-Trimethylbenzene	25	23.1	92	79-120
127-18-4	Tetrachloroethylene	25	23.1	92	76-135
108-88-3	Toluene	25	23.6	94	80-120
79-01-6	Trichloroethylene	25	24.1	96	81-126
75-69-4	Trichlorofluoromethane	25	29.2	117	71-156
75-01-4	Vinyl chloride	25	28.3	113	69-159
108-05-4	Vinyl Acetate	125	147	118	43-154
	m,p-Xylene	50	49.2	98	79-126
95-47-6	o-Xylene	25	25.3	101	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	93%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3348-BS	N0076490.D	1	05/19/14	RB	n/a	n/a	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	123	98	50-147
71-43-2	Benzene	25	28.1	112	81-122
75-27-4	Bromodichloromethane	25	30.3	121	79-123
75-25-2	Bromoform	25	23.6	94	66-123
108-90-7	Chlorobenzene	25	27.4	110	82-124
75-00-3	Chloroethane	25	24.5	98	62-144
67-66-3	Chloroform	25	30.5	122	80-124
75-15-0	Carbon disulfide	25	29.1	116	66-148
56-23-5	Carbon tetrachloride	25	32.6	130	76-136
75-34-3	1,1-Dichloroethane	25	29.1	116	81-122
75-35-4	1,1-Dichloroethylene	25	28.2	113	78-137
107-06-2	1,2-Dichloroethane	25	30.8	123	75-125
78-87-5	1,2-Dichloropropane	25	27.6	110	76-124
124-48-1	Dibromochloromethane	25	26.9	108	78-122
156-59-2	cis-1,2-Dichloroethylene	25	27.7	111	78-120
10061-01-5	cis-1,3-Dichloropropene	25	28.8	115	75-118
156-60-5	trans-1,2-Dichloroethylene	25	30.2	121	76-127
10061-02-6	trans-1,3-Dichloropropene	25	27.5	110	80-120
100-41-4	Ethylbenzene	25	26.6	106	81-121
591-78-6	2-Hexanone	125	105	84	61-129
108-10-1	4-Methyl-2-pentanone	125	135	108	66-122
74-83-9	Methyl bromide	25	27.3	109	59-143
74-87-3	Methyl chloride	25	20.2	81	50-159
75-09-2	Methylene chloride	25	29.6	118	69-135
78-93-3	Methyl ethyl ketone	125	111	89	56-143
100-42-5	Styrene	25	26.8	107	78-119
71-55-6	1,1,1-Trichloroethane	25	31.2	125	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	24.4	98	72-120
79-00-5	1,1,2-Trichloroethane	25	24.8	99	76-119
127-18-4	Tetrachloroethylene	25	26.7	107	76-135
108-88-3	Toluene	25	24.7	99	80-120
79-01-6	Trichloroethylene	25	27.5	110	81-126
75-01-4	Vinyl chloride	25	20.7	83	69-159
1330-20-7	Xylene (total)	75	85.9	115	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3348-BS	N0076490.D	1	05/19/14	RB	n/a	n/a	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13MS	C098312.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13MSD	C098313.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13	C098303.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	FA14869-13 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	23.5	J	347	307	82	350	326	87	6	61-152/27
107-02-8	Acrolein	ND		347	262	75	350	257	74	2	48-178/37
107-13-1	Acrylonitrile	ND		347	283	82	350	368	105	26	66-134/26
71-43-2	Benzene	ND		69.4	56.6	82	69.9	58.8	84	4	76-126/26
108-86-1	Bromobenzene	ND		69.4	57.9	83	69.9	59.3	85	2	76-122/32
74-97-5	Bromochloromethane	ND		69.4	56.2	81	69.9	58.7	84	4	77-120/24
75-27-4	Bromodichloromethane	ND		69.4	59.6	86	69.9	60.4	86	1	74-130/25
75-25-2	Bromoform	ND		69.4	59.9	86	69.9	61.4	88	2	76-127/26
104-51-8	n-Butylbenzene	ND		69.4	52.7	76	69.9	54.0	77	2	71-128/35
135-98-8	sec-Butylbenzene	ND		69.4	53.3	77*	69.9	55.4	79	4	79-135/34
98-06-6	tert-Butylbenzene	ND		69.4	57.8	83	69.9	59.1	85	2	77-133/34
108-90-7	Chlorobenzene	ND		69.4	60.6	87	69.9	61.2	88	1	81-129/29
75-00-3	Chloroethane	ND		69.4	64.3	93	69.9	60.4	86	6	68-133/29
67-66-3	Chloroform	2.0	J	69.4	68.5	96	69.9	70.8	98	3	72-123/26
95-49-8	o-Chlorotoluene	ND		69.4	58.6	84	69.9	61.0	87	4	77-129/33
106-43-4	p-Chlorotoluene	ND		69.4	60.6	87	69.9	62.4	89	3	80-134/33
110-75-8	2-Chloroethyl vinyl ether	ND		347	274	79	350	273	78	0	45-159/26
75-15-0	Carbon disulfide	ND		69.4	60.7	87	69.9	63.8	91	5	72-122/29
56-23-5	Carbon tetrachloride	ND		69.4	57.0	82	69.9	57.8	83	1	78-133/29
75-34-3	1,1-Dichloroethane	ND		69.4	67.1	97	69.9	69.6	100	4	73-125/27
75-35-4	1,1-Dichloroethylene	ND		69.4	58.4	84	69.9	61.9	89	6	81-136/28
563-58-6	1,1-Dichloropropene	ND		69.4	55.2	79	69.9	57.0	82	3	75-130/28
96-12-8	1,2-Dibromo-3-chloropropane	ND		69.4	63.3	91	69.9	64.6	92	2	70-137/29
106-93-4	1,2-Dibromoethane	ND		69.4	57.0	82	69.9	59.9	86	5	77-126/26
107-06-2	1,2-Dichloroethane	ND		69.4	63.1	91	69.9	63.4	91	0	74-128/23
78-87-5	1,2-Dichloropropane	ND		69.4	54.9	79	69.9	57.7	83	5	74-125/25
142-28-9	1,3-Dichloropropane	ND		69.4	57.8	83	69.9	61.1	87	6	76-122/26
123-91-1	1,4-Dioxane	ND		1390	1210	87	1400	1210	87	0	56-152/37
594-20-7	2,2-Dichloropropane	ND		69.4	70.9	102	69.9	42.0	60*	51*	77-133/28
124-48-1	Dibromochloromethane	ND		69.4	59.7	86	69.9	61.8	88	3	76-127/27
75-71-8	Dichlorodifluoromethane	ND		69.4	50.8	73	69.9	51.2	73	1	68-168/29
156-59-2	cis-1,2-Dichloroethylene	12.8		69.4	63.2	73*	69.9	65.8	76	4	74-126/26
10061-01-5	cis-1,3-Dichloropropene	ND		69.4	57.4	83	69.9	58.6	84	2	80-123/26
541-73-1	m-Dichlorobenzene	ND		69.4	60.2	87	69.9	61.9	89	3	81-129/33
95-50-1	o-Dichlorobenzene	ND		69.4	60.2	87	69.9	62.1	89	3	80-129/32
106-46-7	p-Dichlorobenzene	ND		69.4	56.0	81	69.9	58.2	83	4	76-130/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13MS	C098312.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13MSD	C098313.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13	C098303.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Compound	FA14869-13 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
156-60-5	trans-1,2-Dichloroethylene	ND		69.4	56.6	82	69.9	59.0	84	4	70-127/27
10061-02-6	trans-1,3-Dichloropropene	ND		69.4	62.0	89	69.9	63.8	91	3	75-131/28
100-41-4	Ethylbenzene	ND		69.4	54.4	78	69.9	55.9	80	3	77-123/31
591-78-6	2-Hexanone	ND		347	330	95	350	336	96	2	72-133/26
87-68-3	Hexachlorobutadiene	ND		69.4	44.9	65*	69.9	48.8	70*	8	74-136/38
98-82-8	Isopropylbenzene	ND		69.4	59.4	86	69.9	61.6	88	4	80-136/32
99-87-6	p-Isopropyltoluene	ND		69.4	55.3	80	69.9	57.4	82	4	77-131/34
108-10-1	4-Methyl-2-pentanone	ND		347	317	91	350	337	96	6	76-132/26
74-83-9	Methyl bromide	ND		69.4	71.9	104	69.9	71.3	102	1	65-139/31
74-87-3	Methyl chloride	ND		69.4	52.8	76	69.9	56.7	81	7	71-144/27
74-95-3	Methylene bromide	ND		69.4	59.3	85	69.9	60.6	87	2	74-124/24
75-09-2	Methylene chloride	ND		69.4	63.0	91	69.9	65.7	94	4	74-137/28
78-93-3	Methyl ethyl ketone	ND		347	294	85	350	315	90	7	75-137/25
1634-04-4	Methyl Tert Butyl Ether	ND		69.4	57.5	83	69.9	60.2	86	5	77-120/24
91-20-3	Naphthalene	ND		69.4	61.7	89	69.9	64.1	92	4	79-129/33
103-65-1	n-Propylbenzene	ND		69.4	57.5	83	69.9	59.6	85	4	80-135/33
100-42-5	Styrene	ND		69.4	58.1	84	69.9	59.5	85	2	78-125/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		69.4	59.3	85	69.9	60.9	87	3	78-126/27
71-55-6	1,1,1-Trichloroethane	ND		69.4	59.0	85	69.9	57.2	82	3	70-129/27
79-34-5	1,1,2,2-Tetrachloroethane	ND		69.4	61.3	88	69.9	62.5	89	2	71-126/30
79-00-5	1,1,2-Trichloroethane	ND		69.4	57.1	82	69.9	60.0	86	5	74-124/28
87-61-6	1,2,3-Trichlorobenzene	ND		69.4	54.6	79	69.9	57.7	83	6	77-128/35
96-18-4	1,2,3-Trichloropropane	ND		69.4	61.9	89	69.9	63.3	91	2	74-127/27
120-82-1	1,2,4-Trichlorobenzene	ND		69.4	54.1	78	69.9	57.8	83	7	78-130/34
95-63-6	1,2,4-Trimethylbenzene	ND		69.4	53.9	78	69.9	55.5	79	3	74-123/34
108-67-8	1,3,5-Trimethylbenzene	ND		69.4	53.1	76	69.9	55.3	79	4	73-122/33
127-18-4	Tetrachloroethylene	ND		69.4	51.9	75*	69.9	54.0	77*	4	79-130/31
108-88-3	Toluene	ND		69.4	56.3	81	69.9	57.9	83	3	76-124/30
79-01-6	Trichloroethylene	157		69.4	126	-45* [a]	69.9	120	-53* [a]	5	75-128/27
75-69-4	Trichlorofluoromethane	ND		69.4	55.2	79	69.9	54.8	78	1	73-145/31
75-01-4	Vinyl chloride	ND		69.4	51.6	74*	69.9	55.2	79	7	76-141/27
108-05-4	Vinyl Acetate	ND		347	335	96	350	357	102	6	48-164/37
	m,p-Xylene	ND		139	112	81	140	114	82	2	80-128/30
95-47-6	o-Xylene	ND		69.4	60.1	87	69.9	63.0	90	5	80-132/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13MS	C098312.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13MSD	C098313.D	1	05/09/14	AH	n/a	n/a	VC3942
FA14869-13	C098303.D	1	05/09/14	AH	n/a	n/a	VC3942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13, FA14869-14, FA14869-17, FA14869-19, FA14869-21, FA14869-22, FA14869-24

CAS No.	Surrogate Recoveries	MS	MSD	FA14869-13	Limits
1868-53-7	Dibromofluoromethane	100%	100%	110%	75-124%
2037-26-5	Toluene-D8	100%	103%	105%	75-126%
460-00-4	4-Bromofluorobenzene	99%	99%	96%	71-133%
17060-07-0	1,2-Dichloroethane-D4	106%	104%	112%	72-135%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14904-1MS	C098334.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1MSD	C098335.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1	C098323.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	FA14904-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	113		298	238	42*	300	270	52*	13	61-152/27
107-02-8	Acrolein	ND		298	217	73	300	222	74	2	48-178/37
107-13-1	Acrylonitrile	ND		298	223	75	300	259	86	15	66-134/26
71-43-2	Benzene	ND		59.5	50.4	85	60.1	56.3	94	11	76-126/26
108-86-1	Bromobenzene	ND		59.5	52.0	87	60.1	58.2	97	11	76-122/32
74-97-5	Bromochloromethane	ND		59.5	49.1	83	60.1	54.8	91	11	77-120/24
75-27-4	Bromodichloromethane	ND		59.5	53.0	89	60.1	57.5	96	8	74-130/25
75-25-2	Bromoform	ND		59.5	51.6	87	60.1	56.3	94	9	76-127/26
104-51-8	n-Butylbenzene	ND		59.5	46.0	77	60.1	54.8	91	17	71-128/35
135-98-8	sec-Butylbenzene	ND		59.5	46.7	78*	60.1	55.8	93	18	79-135/34
98-06-6	tert-Butylbenzene	ND		59.5	51.3	86	60.1	59.9	100	15	77-133/34
108-90-7	Chlorobenzene	ND		59.5	54.2	91	60.1	59.5	99	9	81-129/29
75-00-3	Chloroethane	ND		59.5	52.5	88	60.1	56.1	93	7	68-133/29
67-66-3	Chloroform	ND		59.5	59.9	101	60.1	66.6	111	11	72-123/26
95-49-8	o-Chlorotoluene	ND		59.5	53.5	90	60.1	61.6	103	14	77-129/33
106-43-4	p-Chlorotoluene	ND		59.5	55.9	94	60.1	64.0	107	14	80-134/33
110-75-8	2-Chloroethyl vinyl ether	ND		298	265	89	300	305	102	14	45-159/26
75-15-0	Carbon disulfide	1.1	J	59.5	51.2	84	60.1	58.1	95	13	72-122/29
56-23-5	Carbon tetrachloride	ND		59.5	49.2	83	60.1	54.1	90	9	78-133/29
75-34-3	1,1-Dichloroethane	ND		59.5	59.0	99	60.1	65.4	109	10	73-125/27
75-35-4	1,1-Dichloroethylene	ND		59.5	51.0	86	60.1	55.2	92	8	81-136/28
563-58-6	1,1-Dichloropropene	ND		59.5	48.2	81	60.1	53.7	89	11	75-130/28
96-12-8	1,2-Dibromo-3-chloropropane	ND		59.5	51.0	86	60.1	59.9	100	16	70-137/29
106-93-4	1,2-Dibromoethane	ND		59.5	50.1	84	60.1	56.7	94	12	77-126/26
107-06-2	1,2-Dichloroethane	ND		59.5	55.8	94	60.1	58.8	98	5	74-128/23
78-87-5	1,2-Dichloropropane	ND		59.5	48.8	82	60.1	55.6	93	13	74-125/25
142-28-9	1,3-Dichloropropane	ND		59.5	51.2	86	60.1	57.0	95	11	76-122/26
123-91-1	1,4-Dioxane	ND		1190	1020	86	1200	1060	88	4	56-152/37
594-20-7	2,2-Dichloropropane	ND		59.5	36.3	61*	60.1	72.7	121	67*	77-133/28
124-48-1	Dibromochloromethane	ND		59.5	52.3	88	60.1	58.5	97	11	76-127/27
75-71-8	Dichlorodifluoromethane	ND		59.5	38.5	65*	60.1	44.2	74	14	68-168/29
156-59-2	cis-1,2-Dichloroethylene	ND		59.5	47.3	79	60.1	54.1	90	13	74-126/26
10061-01-5	cis-1,3-Dichloropropene	ND		59.5	51.1	86	60.1	56.7	94	10	80-123/26
541-73-1	m-Dichlorobenzene	ND		59.5	53.4	90	60.1	61.2	102	14	81-129/33
95-50-1	o-Dichlorobenzene	ND		59.5	53.5	90	60.1	60.1	100	12	80-129/32
106-46-7	p-Dichlorobenzene	ND		59.5	51.0	86	60.1	57.0	95	11	76-130/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14904-1MS	C098334.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1MSD	C098335.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1	C098323.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Compound	FA14904-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
156-60-5	trans-1,2-Dichloroethylene	ND		59.5	48.6	82	60.1	54.2	90	11	70-127/27
10061-02-6	trans-1,3-Dichloropropene	ND		59.5	55.8	94	60.1	60.4	101	8	75-131/28
100-41-4	Ethylbenzene	ND		59.5	49.2	83	60.1	55.1	92	11	77-123/31
591-78-6	2-Hexanone	ND		298	265	89	300	294	98	10	72-133/26
87-68-3	Hexachlorobutadiene	ND		59.5	33.3	56*	60.1	39.1	65*	16	74-136/38
98-82-8	Isopropylbenzene	ND		59.5	53.7	90	60.1	60.3	100	12	80-136/32
99-87-6	p-Isopropyltoluene	ND		59.5	49.2	83	60.1	57.9	96	16	77-131/34
108-10-1	4-Methyl-2-pentanone	ND		298	262	88	300	291	97	10	76-132/26
74-83-9	Methyl bromide	ND		59.5	58.6	98	60.1	65.1	108	11	65-139/31
74-87-3	Methyl chloride	ND		59.5	44.4	75	60.1	51.5	86	15	71-144/27
74-95-3	Methylene bromide	ND		59.5	50.3	85	60.1	56.7	94	12	74-124/24
75-09-2	Methylene chloride	5.1	JB	59.5	62.8	97	60.1	68.9	106	9	74-137/28
78-93-3	Methyl ethyl ketone	11.5	J	298	234	75	300	263	84	12	75-137/25
1634-04-4	Methyl Tert Butyl Ether	ND		59.5	49.3	83	60.1	55.8	93	12	77-120/24
91-20-3	Naphthalene	ND		59.5	48.6	82	60.1	52.2	87	7	79-129/33
103-65-1	n-Propylbenzene	ND		59.5	52.4	88	60.1	61.8	103	16	80-135/33
100-42-5	Styrene	ND		59.5	52.2	88	60.1	57.8	96	10	78-125/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		59.5	54.0	91	60.1	59.6	99	10	78-126/27
71-55-6	1,1,1-Trichloroethane	ND		59.5	49.5	83	60.1	56.1	93	13	70-129/27
79-34-5	1,1,2,2-Tetrachloroethane	ND		59.5	50.0	84	60.1	58.2	97	15	71-126/30
79-00-5	1,1,2-Trichloroethane	ND		59.5	52.2	88	60.1	57.0	95	9	74-124/28
87-61-6	1,2,3-Trichlorobenzene	ND		59.5	43.0	72*	60.1	46.0	77	7	77-128/35
96-18-4	1,2,3-Trichloropropane	ND		59.5	53.8	90	60.1	61.6	103	14	74-127/27
120-82-1	1,2,4-Trichlorobenzene	ND		59.5	45.3	76*	60.1	49.4	82	9	78-130/34
95-63-6	1,2,4-Trimethylbenzene	ND		59.5	49.3	83	60.1	56.2	94	13	74-123/34
108-67-8	1,3,5-Trimethylbenzene	ND		59.5	48.7	82	60.1	57.1	95	16	73-122/33
127-18-4	Tetrachloroethylene	ND		59.5	52.8	89	60.1	59.4	99	12	79-130/31
108-88-3	Toluene	2.1	J	59.5	51.3	83	60.1	57.0	91	11	76-124/30
79-01-6	Trichloroethylene	ND		59.5	50.3	85	60.1	56.6	94	12	75-128/27
75-69-4	Trichlorofluoromethane	ND		59.5	42.9	72*	60.1	48.7	81	13	73-145/31
75-01-4	Vinyl chloride	ND		59.5	41.0	69*	60.1	49.0	82	18	76-141/27
108-05-4	Vinyl Acetate	ND		298	250	84	300	204	68	20	48-164/37
	m,p-Xylene	ND		119	101	85	120	113	94	11	80-128/30
95-47-6	o-Xylene	ND		59.5	55.1	93	60.1	62.3	104	12	80-132/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14904-1MS	C098334.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1MSD	C098335.D	1	05/12/14	AH	n/a	n/a	VC3943
FA14904-1	C098323.D	1	05/12/14	AH	n/a	n/a	VC3943

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-14, FA14869-17, FA14869-18, FA14869-19, FA14869-20, FA14869-24

CAS No.	Surrogate Recoveries	MS	MSD	FA14904-1	Limits
1868-53-7	Dibromofluoromethane	99%	99%	111%	75-124%
2037-26-5	Toluene-D8	102%	105%	102%	75-126%
460-00-4	4-Bromofluorobenzene	100%	103%	107%	71-133%
17060-07-0	1,2-Dichloroethane-D4	103%	101%	120%	72-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	FA14697-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	72.4	58	125	78.7	63	8	50-147/21
107-02-8	Acrolein	ND		125	83.3	67	125	89.7	72	7	31-154/29
107-13-1	Acrylonitrile	ND		125	109	87	125	122	98	11	58-126/16
71-43-2	Benzene	ND		25	23.7	95	25	23.3	93	2	81-122/14
108-86-1	Bromobenzene	ND		25	20.9	84	25	20.8	83	0	80-121/14
74-97-5	Bromochloromethane	ND		25	19.4	78	25	20.0	80	3	76-123/14
75-27-4	Bromodichloromethane	ND		25	20.0	80	25	19.4	78*	3	79-123/19
75-25-2	Bromoform	ND		25	16.4	66	25	16.7	67	2	66-123/21
104-51-8	n-Butylbenzene	ND		25	22.1	88	25	21.2	85	4	79-126/16
135-98-8	sec-Butylbenzene	ND		25	25.8	103	25	25.2	101	2	83-133/16
98-06-6	tert-Butylbenzene	ND		25	25.2	101	25	24.9	100	1	80-133/16
108-90-7	Chlorobenzene	ND		25	24.1	96	25	23.3	93	3	82-124/14
75-00-3	Chloroethane	ND		25	26.2	105	25	25.6	102	2	62-144/20
67-66-3	Chloroform	ND		25	22.7	91	25	22.7	91	0	80-124/15
95-49-8	o-Chlorotoluene	ND		25	25.1	100	25	24.8	99	1	81-127/15
106-43-4	p-Chlorotoluene	ND		25	25.2	101	25	24.9	100	1	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	125	ND	0*	nc	56-122/23
75-15-0	Carbon disulfide	ND		25	19.6	78	25	19.7	79	1	66-148/23
56-23-5	Carbon tetrachloride	ND		25	19.9	80	25	19.1	76	4	76-136/23
75-34-3	1,1-Dichloroethane	3.4		25	27.3	96	25	27.0	94	1	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	23.0	92	25	23.6	94	3	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	23.2	93	25	23.4	94	1	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.0	92	25	24.3	97	5	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	20.5	82	25	20.9	84	2	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	23.3	93	25	22.9	92	2	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	23.1	92	25	22.8	91	1	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	22.1	88	25	22.2	89	0	80-118/13
123-91-1	1,4-Dioxane	ND		500	379	76	500	365	73	4	48-146/34
594-20-7	2,2-Dichloropropane	ND		25	23.3	93	25	22.9	92	2	74-139/17
124-48-1	Dibromochloromethane	ND		25	16.1	64*	25	16.0	64*	1	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	29.0	116	25	28.7	115	1	42-167/19
156-59-2	cis-1,2-Dichloroethylene	1.2		25	21.3	80	25	21.9	83	3	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	17.8	71*	25	17.5	70*	2	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	22.7	91	25	22.1	88	3	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	21.8	87	25	21.4	86	2	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	21.5	86	25	21.2	85	1	78-120/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Compound	FA14697-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-60-5	trans-1,2-Dichloroethylene	ND		25	22.6	90	25	22.8	91	1	76-127/17
10061-02-6	trans-1,3-Dichloropropene	ND		25	22.7	91	25	20.1	80	12	80-120/22
100-41-4	Ethylbenzene	ND		25	23.5	94	25	22.5	90	4	81-121/14
591-78-6	2-Hexanone	ND		125	99.8	80	125	106	85	6	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	21.2	85	25	21.4	86	1	75-142/19
98-82-8	Isopropylbenzene	ND		25	22.3	89	25	20.9	84	6	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	22.8	91	25	21.7	87	5	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	123	98	125	127	102	3	66-122/16
74-83-9	Methyl bromide	ND		25	27.8	111	25	28.9	116	4	59-143/19
74-87-3	Methyl chloride	ND		25	32.2	129	25	33.7	135	5	50-159/19
74-95-3	Methylene bromide	ND		25	22.1	88	25	22.5	90	2	78-119/14
75-09-2	Methylene chloride	ND		25	24.9	100	25	24.7	99	1	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	83.3	67	125	89.5	72	7	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	20.4	82	25	21.7	87	6	72-117/14
91-20-3	Naphthalene	ND		25	20.2	81	25	22.7	91	12	63-132/25
103-65-1	n-Propylbenzene	ND		25	25.6	102	25	25.5	102	0	82-133/15
100-42-5	Styrene	ND		25	16.6	66*	25	15.3	61*	8	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	22.6	90	25	20.3	81	11	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	22.8	91	25	22.9	92	0	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.6	98	25	25.5	102	4	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	22.6	90	25	22.0	88	3	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	20.9	84	25	23.2	93	10	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	21.3	85	25	22.3	89	5	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	19.9	80	25	20.6	82	3	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	22.3	89	25	21.1	84	6	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	21.4	86	25	20.2	81	6	79-120/19
127-18-4	Tetrachloroethylene	ND		25	22.0	88	25	20.4	82	8	76-135/16
108-88-3	Toluene	ND		25	22.2	89	25	21.1	84	5	80-120/14
79-01-6	Trichloroethylene	0.72	J	25	23.8	92	25	24.1	94	1	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	28.7	115	25	27.4	110	5	71-156/21
75-01-4	Vinyl chloride	0.91	J	25	28.1	109	25	28.9	112	3	69-159/18
108-05-4	Vinyl Acetate	ND		125	113	90	125	115	92	2	43-154/14
	m,p-Xylene	ND		50	47.3	95	50	45.0	90	5	79-126/15
95-47-6	o-Xylene	ND		25	23.4	94	25	22.0	88	6	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-12, FA14869-25

CAS No.	Surrogate Recoveries	MS	MSD	FA14697-19	Limits
1868-53-7	Dibromofluoromethane	99%	101%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	109%	107%	110%	79-125%
2037-26-5	Toluene-D8	96%	95%	100%	85-112%
460-00-4	4-Bromofluorobenzene	90%	93%	98%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13LMS	N0076502.D	5	05/19/14	RB	n/a	n/a	VN3348
FA14869-13LMSD	N0076503.D	5	05/19/14	RB	n/a	n/a	VN3348
FA14869-13L	N0076492.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
FA14869-13L	N0076494.D	5	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Compound	FA14869-13L ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		625	619	99	625	533	85	15	50-147/21
71-43-2	Benzene	5.2		125	132	101	125	124	95	6	81-122/14
75-27-4	Bromodichloromethane	ND		125	131	105	125	121	97	8	79-123/19
75-25-2	Bromoform	ND		125	101	81	125	95.7	77	5	66-123/21
108-90-7	Chlorobenzene	ND		125	126	101	125	120	96	5	82-124/14
75-00-3	Chloroethane	ND		125	123	98	125	126	101	2	62-144/20
67-66-3	Chloroform	ND		125	131	105	125	122	98	7	80-124/15
75-15-0	Carbon disulfide	ND		125	135	108	125	123	98	9	66-148/23
56-23-5	Carbon tetrachloride	ND		125	127	102	125	123	98	3	76-136/23
75-34-3	1,1-Dichloroethane	ND		125	127	102	125	119	95	7	81-122/15
75-35-4	1,1-Dichloroethylene	ND		125	140	112	125	128	102	9	78-137/18
107-06-2	1,2-Dichloroethane	ND		125	130	104	125	122	98	6	75-125/14
78-87-5	1,2-Dichloropropane	ND		125	128	102	125	118	94	8	76-124/14
124-48-1	Dibromochloromethane	ND		125	119	95	125	113	90	5	78-122/19
156-59-2	cis-1,2-Dichloroethylene	ND		125	124	99	125	117	94	6	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		125	126	101	125	116	93	8	75-118/23
156-60-5	trans-1,2-Dichloroethylene	ND		125	129	103	125	118	94	9	76-127/17
10061-02-6	trans-1,3-Dichloropropene	ND		125	127	102	125	121	97	5	80-120/22
100-41-4	Ethylbenzene	37.8		125	153	92	125	144	85	6	81-121/14
591-78-6	2-Hexanone	ND		625	537	86	625	486	78	10	61-129/18
108-10-1	4-Methyl-2-pentanone	ND		625	646	103	625	630	101	3	66-122/16
74-83-9	Methyl bromide	ND		125	141	113	125	133	106	6	59-143/19
74-87-3	Methyl chloride	ND		125	109	87	125	92.8	74	16	50-159/19
75-09-2	Methylene chloride	4.7	J	125	128	99	125	116	89	10	69-135/16
78-93-3	Methyl ethyl ketone	ND		625	539	86	625	496	79	8	56-143/18
100-42-5	Styrene	ND		125	124	99	125	117	94	6	78-119/23
71-55-6	1,1,1-Trichloroethane	ND		125	131	105	125	122	98	7	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		125	113	90	125	110	88	3	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		125	119	95	125	113	90	5	76-119/14
127-18-4	Tetrachloroethylene	2.3		125	127	100	125	118	93	7	76-135/16
108-88-3	Toluene	94.5 [a]		125	216	97	125	208	91	4	80-120/14
79-01-6	Trichloroethylene	1.2		125	123	97	125	116	92	6	81-126/15
75-01-4	Vinyl chloride	ND		125	114	91	125	104	83	9	69-159/18
1330-20-7	Xylene (total)	220		375	600	101	375	572	94	5	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13LMS	N0076502.D	5	05/19/14	RB	n/a	n/a	VN3348
FA14869-13LMSD	N0076503.D	5	05/19/14	RB	n/a	n/a	VN3348
FA14869-13L	N0076492.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
FA14869-13L	N0076494.D	5	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Surrogate Recoveries	MS	MSD	FA14869-13L	FA14869-13L	Limits
1868-53-7	Dibromofluoromethane	102%	101%	101%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	94%	99%	104%	96%	79-125%
2037-26-5	Toluene-D8	99%	100%	96%	94%	85-112%
460-00-4	4-Bromofluorobenzene	98%	99%	100%	101%	83-118%

(a) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13LDUP	N0076493.D	1	05/19/14	RB	n/a	n/a	VN3348
FA14869-13L	N0076492.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
FA14869-13L	N0076494.D	5	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

		FA14869-13LDUP					
CAS No.	**Compound**	**ug/l**	**Q**	**ug/l**	**Q**	**RPD**	**Limits**
67-64-1	Acetone	ND		ND		nc	21
71-43-2	Benzene	5.2		3.3		45*	14
75-27-4	Bromodichloromethane	ND		ND		nc	19
75-25-2	Bromoform	ND		ND		nc	21
108-90-7	Chlorobenzene	ND		ND		nc	14
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	15
75-15-0	Carbon disulfide	ND		ND		nc	23
56-23-5	Carbon tetrachloride	ND		ND		nc	23
75-34-3	1,1-Dichloroethane	ND		ND		nc	15
75-35-4	1,1-Dichloroethylene	ND		ND		nc	18
107-06-2	1,2-Dichloroethane	ND		ND		nc	14
78-87-5	1,2-Dichloropropane	ND		ND		nc	14
124-48-1	Dibromochloromethane	ND		ND		nc	19
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	15
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	23
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	17
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	22
100-41-4	Ethylbenzene	37.8		47.8		23*	14
591-78-6	2-Hexanone	ND		ND		nc	18
108-10-1	4-Methyl-2-pentanone	ND		ND		nc	16
74-83-9	Methyl bromide	ND		ND		nc	19
74-87-3	Methyl chloride	ND		ND		nc	19
75-09-2	Methylene chloride	4.7	J	ND		200*	16
78-93-3	Methyl ethyl ketone	ND		ND		nc	18
100-42-5	Styrene	ND		ND		nc	23
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	16
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	14
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	14
127-18-4	Tetrachloroethylene	2.3		ND		200*	16
108-88-3	Toluene	94.5 [a]		112	E	17*	14
79-01-6	Trichloroethylene	1.2		0.74	J	47*	15
75-01-4	Vinyl chloride	ND		ND		nc	18
1330-20-7	Xylene (total)	220		271	E	21*	15

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA14869
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14869-13LDUP	N0076493.D	1	05/19/14	RB	n/a	n/a	VN3348
FA14869-13L	N0076492.D	1	05/19/14	RB	05/13/14	OP51578	VN3348
FA14869-13L	N0076494.D	5	05/19/14	RB	05/13/14	OP51578	VN3348

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14869-13L, FA14869-14L, FA14869-17L, FA14869-18L, FA14869-19L, FA14869-20L, FA14869-21L, FA14869-22L

CAS No.	Surrogate Recoveries	DUP	FA14869-13L	FA14869-13L	Limits
1868-53-7	Dibromofluoromethane	99%	101%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	104%	96%	79-125%
2037-26-5	Toluene-D8	96%	96%	94%	85-112%
460-00-4	4-Bromofluorobenzene	102%	100%	101%	83-118%

(a) Result is from Run #2.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27243
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/12/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.042	.0025	.0042	-0.0063	<0.042

Associated samples MP27243: FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27243
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/12/14 05/12/14

Metal	FA14808-1 Original	DUP	RPD	QC Limits	FA14808-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.082	0.084	2.4	0-20	0.082	0.37	0.291	98.9	80-120

Associated samples MP27243: FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27243
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/12/14

Metal	FA14808-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.082	0.37	0.291	98.9	0.0	20

Associated samples MP27243: FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27243
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/12/14

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.25	0.25	100.0	80-120

Associated samples MP27243: FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27243
Matrix Type: SOLID

Methods: SW846 7471B
Units: ug/l

Prep Date: 05/12/14

Metal	FA14808-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.876	0.421	52.0 (a)	0-10

Associated samples MP27243: FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/13/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.75	1.6		
Antimony	1.0	.1	.1	-0.020	<1.0
Arsenic	0.50	.1	.1	-0.11	<0.50
Barium	10	.05	.05		
Beryllium	0.25	.025	.025	-0.010	<0.25
Cadmium	0.20	.025	.025	-0.0050	<0.20
Calcium	250	2.5	2.5		
Chromium	0.50	.05	.05	-0.010	<0.50
Cobalt	2.5	.025	.025		
Copper	1.3	.05	.05	0.020	<1.3
Iron	15	.85	1.3		
Lead	1.0	.055	.08	-0.015	<1.0
Magnesium	250	2.5	2.5		
Manganese	0.75	.025	.025	-0.0050	<0.75
Molybdenum	2.5	.025	.03		
Nickel	2.0	.025	.025	0.0	<2.0
Potassium	500	10	10		
Selenium	1.0	.12	.15	0.15	<1.0
Silver	0.50	.033	.033	0.0050	<0.50
Sodium	500	25	25		
Strontium	0.50	.02	.025		
Thallium	0.50	.075	.075	-0.035	<0.50
Tin	2.5	.035	.035		
Titanium	0.50	.045	.045		
Vanadium	2.5	.025	.025		
Zinc	1.0	.15	.15	0.30	<1.0

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:			05/13/14					05/13/14	
Metal	FA14846-1 Original	DUP	RPD	QC Limits	FA14846-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0	NC	0-20	0.0	19.7	23.5	83.7	80-120
Arsenic	0.0	0.0	NC	0-20	0.0	89.6	94.1	95.2	80-120
Barium									
Beryllium	0.0	0.0	NC	0-20	0.0	2.4	2.35	102.0	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	2.3	2.35	97.7	80-120
Calcium									
Chromium	1.4	1.4	0.0	0-20	1.4	11.1	9.41	103.0	80-120
Cobalt									
Copper	0.33	0.35	5.9	0-20	0.33	12.4	11.8	102.6	80-120
Iron									
Lead	1.1	1.1	0.0	0-20	1.1	23.8	23.5	96.5	80-120
Magnesium									
Manganese	1.2	1.3	8.0	0-20	1.2	25.7	23.5	104.1	80-120
Molybdenum									
Nickel	0.43	0.38	12.3	0-20	0.43	24.3	23.5	101.4	80-120
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	89.5	94.1	95.1	80-120
Silver	0.0	0.0	NC	0-20	0.0	2.2	2.35	93.5	80-120
Sodium									
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	89.5	94.1	95.1	80-120
Tin									
Titanium									
Vanadium									
Zinc	0.60	0.80	28.6 (a)	0-20	0.60	24.0	23.5	99.4	80-120

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/13/14

Metal	FA14846-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	17.6	21.4	82.2	11.3	20
Arsenic	0.0	81.0	85.7	94.6	10.1	20
Barium						
Beryllium	0.0	2.2	2.14	102.7	8.7	20
Cadmium	0.0	2.1	2.14	98.1	9.1	20
Calcium						
Chromium	1.4	10.2	8.57	102.7	8.5	20
Cobalt						
Copper	0.33	11.2	10.7	101.5	10.2	20
Iron						
Lead	1.1	21.8	21.4	96.7	8.8	20
Magnesium						
Manganese	1.2	23.4	21.4	103.7	9.4	20
Molybdenum						
Nickel	0.43	22.1	21.4	101.2	9.5	20
Potassium						
Selenium	0.0	80.8	85.7	94.3	10.2	20
Silver	0.0	1.9	2.14	88.7	14.6	20
Sodium						
Strontium						
Thallium	0.0	81.4	85.7	95.0	9.5	20
Tin						
Titanium						
Vanadium						
Zinc	0.60	22.0	21.4	99.9	8.7	20

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/13/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	26.8	25	107.2	80-120
Arsenic	107	100	107.0	80-120
Barium				
Beryllium	2.7	2.5	108.0	80-120
Cadmium	2.7	2.5	108.0	80-120
Calcium				
Chromium	10.9	10	109.0	80-120
Cobalt				
Copper	13.3	12.5	106.4	80-120
Iron				
Lead	25.5	25	102.0	80-120
Magnesium				
Manganese	27.9	25	111.6	80-120
Molybdenum				
Nickel	28.4	25	113.6	80-120
Potassium				
Selenium	105	100	105.0	80-120
Silver	2.4	2.5	96.0	80-120
Sodium				
Strontium				
Thallium	103	100	103.0	80-120
Tin				
Titanium				
Vanadium				
Zinc	26.4	25	105.6	80-120

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/13/14

Metal	FA14846-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium				
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	33.3	34.3	3.0	0-10
Cobalt				
Copper	7.60	9.20	21.1 (a)	0-10
Iron				
Lead	25.7	25.9	0.8	0-10
Magnesium				
Manganese	28.9	29.9	3.5	0-10
Molybdenum				
Nickel	9.90	8.70	12.1 (a)	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium				
Zinc	13.8	19.8	43.5 (a)	0-10

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27247
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/13/14

Metal	Sample ml	Final ml	FA14846-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			93.7	0.2	5	100	93.7	80-120
Arsenic	9.8	10			96.5	0.2	5	100	96.5	80-120
Barium										
Beryllium	9.8	10			50	0.2	2.5	50	100.0	80-120
Cadmium	9.8	10			48.9	0.2	2.5	50	97.8	80-120
Calcium										
Chromium	9.8	10	33.3	32.634	85.3	0.2	2.5	50	105.3	80-120
Cobalt										
Copper	9.8	10	7.6	7.448	107.9	0.2	5	100	100.5	80-120
Iron										
Lead	9.8	10	25.7	25.186	71	0.2	2.5	50	91.6	80-120
Magnesium										
Manganese	9.8	10	28.9	28.322	81.3	0.2	2.5	50	106.0	80-120
Molybdenum										
Nickel	9.8	10	9.9	9.702	108.4	0.2	5	100	98.7	80-120
Potassium										
Selenium	9.8	10			90.3	0.2	5	100	90.3	80-120
Silver	9.8	10			46.3	0.2	2.5	50	92.6	80-120
Sodium										
Strontium										
Thallium	9.8	10			91.7	0.2	5	100	91.7	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	13.8	13.524	256	0.2	12.5	250	97.0	80-120

Associated samples MP27247: FA14869-1, FA14869-2, FA14869-3, FA14869-4, FA14869-5, FA14869-6, FA14869-7, FA14869-8, FA14869-9, FA14869-10, FA14869-11, FA14869-15, FA14869-23

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	2	2.3	1.9	<6.0
Arsenic	10	2	2.4		
Barium	200	1	1		
Beryllium	4.0	.5	.5	-0.10	<4.0
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1	2		
Cobalt	50	.5	.5		
Copper	25	1	1	-0.10	<25
Iron	300	17	17		
Lead	5.0	1.1	1.1		
Magnesium	5000	50	56		
Manganese	15	.5	1	0.0	<15
Molybdenum	50	.5	.5		
Nickel	40	.5	.5	-0.10	<40
Potassium	10000	200	200		
Selenium	10	2.3	2.3		
Silver	10	.65	.77		
Sodium	10000	500	500		
Strontium	10	.4	.4		
Thallium	10	1.5	2	-1.1	<10
Tin	50	.7	1		
Titanium	10	.9	1		
Vanadium	50	.5	.5		
Zinc	20	3	3	3.1	<20

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	05/14/14						05/14/14		
Metal	FA14883-1 Original	DUP	RPD	QC Limits	FA14883-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr								
Antimony	0.0	0.0	NC	0-20	0.0	521	500	104.2	80-120
Arsenic	anr								
Barium	anr								
Beryllium	0.0	0.0	NC	0-20	0.0	53.5	50	107.0	80-120
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	2.2	1.9	14.6	0-20	2.2	276	250	109.5	80-120
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	36.4	36.2	0.6	0-20	36.4	574	500	107.5	80-120
Molybdenum									
Nickel	3.4	3.5	2.9	0-20	3.4	538	500	106.9	80-120
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	2050	2000	102.5	80-120
Tin									
Titanium									
Vanadium	anr								
Zinc	108	107	0.9	0-20	108	616	500	101.6	80-120

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/14

Metal	FA14883-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	0.0	518	500	103.6	0.6	20
Arsenic	anr					
Barium	anr					
Beryllium	0.0	53.0	50	106.0	0.9	20
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	2.2	270	250	107.1	2.2	20
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	36.4	565	500	105.7	1.6	20
Molybdenum						
Nickel	3.4	531	500	105.5	1.3	20
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	0.0	2040	2000	102.0	0.5	20
Tin						
Titanium						
Vanadium	anr					
Zinc	108	614	500	101.2	0.3	20

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr			
Antimony	529	500	105.8	80-120
Arsenic	anr			
Barium	anr			
Beryllium	53.6	50	107.2	80-120
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	273	250	109.2	80-120
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	542	500	108.4	80-120
Molybdenum				
Nickel	543	500	108.6	80-120
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	2080	2000	104.0	80-120
Tin				
Titanium				
Vanadium	anr			
Zinc	525	500	105.0	80-120

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/14

Metal	FA14883-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	0.00	0.00	NC	0-10
Arsenic	anr			
Barium	anr			
Beryllium	0.00	0.00	NC	0-10
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	2.20	0.00	100.0(a)	0-10
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	36.4	38.1	4.7	0-10
Molybdenum				
Nickel	3.40	3.60	5.9	0-10
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	anr			
Zinc	108	114	5.5	0-10

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA14869
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27252
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/14

Metal	Sample ml	Final ml	FA14883-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			107.1	0.2	5	100	107.1	80-120
Arsenic										
Barium										
Beryllium	9.8	10			53.6	0.2	2.5	50	107.2	80-120
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper	9.8	10	2.2	2.156	110.4	0.2	5	100	108.2	80-120
Iron										
Lead										
Magnesium										
Manganese	9.8	10	36.4	35.672	89.8	0.2	2.5	50	108.3	80-120
Molybdenum										
Nickel	9.8	10	3.4	3.332	113.5	0.2	5	100	110.2	80-120
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium	9.8	10			104.9	0.2	5	100	104.9	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	107.7	105.546	367	0.2	12.5	250	104.6	80-120

Associated samples MP27252: FA14869-25

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA14744

Sampling Date: 05/05/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **54**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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Accutest LabLink@153230 11:39 12-Aug-2014

Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA14744

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA14744-1	05/05/14	14:45	GK	05/06/14	SO	Soil	GP-39-2-3
FA14744-2	05/05/14	15:15	GK	05/06/14	SO	Soil	GP-39-10-11

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA14744
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/05/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14744-1	**GP-39-2-3**					
Acetone		31.1 J	57	17	ug/kg	SW846 8260B
Total TIC, Semi-Volatile		3300 J			ug/kg	
Arsenic [a]		0.40 B	1.1	0.22	mg/kg	SW846 6010C
Beryllium		0.20 B	0.27	0.027	mg/kg	SW846 6010C
Cadmium [a]		0.060 B	0.44	0.054	mg/kg	SW846 6010C
Chromium [a]		29.0	1.1	0.11	mg/kg	SW846 6010C
Copper [a]		14.9	2.7	0.11	mg/kg	SW846 6010C
Lead [a]		9.0	2.2	0.17	mg/kg	SW846 6010C
Manganese [a]		76.2	1.6	0.054	mg/kg	SW846 6010C
Mercury		0.10	0.051	0.0051	mg/kg	SW846 7471B
Nickel [a]		3.4 B	4.4	0.054	mg/kg	SW846 6010C
Silver [a]		0.10 B	1.1	0.071	mg/kg	SW846 6010C
Zinc [b]		9.0	2.2	0.33	mg/kg	SW846 6010C
FA14744-2	**GP-39-10-11**					
Total TIC, Semi-Volatile		4400 J			ug/kg	

(a) Elevated reporting limit(s) due to matrix interference.
(b) Elevated reporting limit(s) due to matrix interference. Manually elevated.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098255.D	1	05/06/14	AH	n/a	n/a	VC3939
Run #2							

	Initial Weight
Run #1	5.61 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	31.1	57	17	ug/kg	J
107-02-8	Acrolein	ND	28	12	ug/kg	
107-13-1	Acrylonitrile	ND	28	8.8	ug/kg	
71-43-2	Benzene	ND	5.7	1.1	ug/kg	
108-86-1	Bromobenzene	ND	5.7	1.2	ug/kg	
74-97-5	Bromochloromethane	ND	5.7	2.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.7	1.1	ug/kg	
75-25-2	Bromoform	ND	5.7	1.2	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	1.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	1.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	1.1	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	1.1	ug/kg	
75-00-3	Chloroethane	ND	5.7	2.6	ug/kg	
67-66-3	Chloroform	ND	5.7	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	1.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	1.1	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	28	11	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	1.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.7	1.1	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.7	1.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	1.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.7	2.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.7	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.7	1.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.7	1.1	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.7	1.1	ug/kg	
123-91-1	1,4-Dioxane	ND	230	60	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	1.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	1.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.7	1.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.7	1.1	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	1.1	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.7	1.1	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.7	1.1	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.7	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.7	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	5.7	1.1	ug/kg	
591-78-6	2-Hexanone	ND	28	5.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	1.1	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	1.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	1.1	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	28	5.7	ug/kg	
74-83-9	Methyl bromide	ND	5.7	2.1	ug/kg	
74-87-3	Methyl chloride	ND	5.7	2.3	ug/kg	
74-95-3	Methylene bromide	ND	5.7	1.3	ug/kg	
75-09-2	Methylene chloride	ND	11	4.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	28	8.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.7	1.1	ug/kg	
91-20-3	Naphthalene	ND	5.7	2.3	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	1.1	ug/kg	
100-42-5	Styrene	ND	5.7	1.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.7	1.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.7	1.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	1.4	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.7	2.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	1.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	1.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	1.1	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.7	1.4	ug/kg	
108-88-3	Toluene	ND	5.7	1.1	ug/kg	
79-01-6	Trichloroethylene	ND	5.7	1.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.7	1.1	ug/kg	
75-01-4	Vinyl chloride	ND	5.7	1.2	ug/kg	
108-05-4	Vinyl Acetate	ND	28	9.1	ug/kg	
	m,p-Xylene	ND	11	1.8	ug/kg	
95-47-6	o-Xylene	ND	5.7	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-124%
2037-26-5	Toluene-D8	100%		75-126%
460-00-4	4-Bromofluorobenzene	101%		71-133%
17060-07-0	1,2-Dichloroethane-D4	107%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X034834.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	1100	210	ug/kg	
95-57-8	2-Chlorophenol	ND	210	21	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	210	21	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	210	22	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	210	23	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	210	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	420	85	ug/kg	
95-48-7	2-Methylphenol	ND	210	21	ug/kg	
	3&4-Methylphenol	ND	210	42	ug/kg	
88-75-5	2-Nitrophenol	ND	210	21	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	170	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	170	ug/kg	
108-95-2	Phenol	ND	210	21	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	210	27	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	210	21	ug/kg	
83-32-9	Acenaphthene	ND	210	27	ug/kg	
208-96-8	Acenaphthylene	ND	210	21	ug/kg	
62-53-3	Aniline	ND	210	21	ug/kg	
120-12-7	Anthracene	ND	210	21	ug/kg	
92-87-5	Benzidine	ND	2100	420	ug/kg	
56-55-3	Benzo(a)anthracene	ND	210	21	ug/kg	
50-32-8	Benzo(a)pyrene	ND	210	21	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	210	21	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	210	21	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	210	23	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	210	21	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	210	42	ug/kg	
100-51-6	Benzyl Alcohol	ND	210	21	ug/kg	
91-58-7	2-Chloronaphthalene	ND	210	25	ug/kg	
106-47-8	4-Chloroaniline	ND	210	21	ug/kg	
86-74-8	Carbazole	ND	210	21	ug/kg	
218-01-9	Chrysene	ND	210	21	ug/kg	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	210	21	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	210	21	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	210	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	210	32	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	210	21	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	210	24	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	210	21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	210	21	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	210	24	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	210	23	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	210	21	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	210	21	ug/kg	
132-64-9	Dibenzofuran	ND	210	21	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	42	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	210	42	ug/kg	
84-66-2	Diethyl phthalate	ND	420	42	ug/kg	
131-11-3	Dimethyl phthalate	ND	210	42	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	42	ug/kg	
206-44-0	Fluoranthene	ND	210	21	ug/kg	
86-73-7	Fluorene	ND	210	21	ug/kg	
118-74-1	Hexachlorobenzene	ND	210	21	ug/kg	
87-68-3	Hexachlorobutadiene	ND	210	21	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	210	21	ug/kg	
67-72-1	Hexachloroethane	ND	210	21	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	210	21	ug/kg	
78-59-1	Isophorone	ND	210	21	ug/kg	
90-12-0	1-Methylnaphthalene	ND	210	21	ug/kg	
91-57-6	2-Methylnaphthalene	ND	210	21	ug/kg	
88-74-4	2-Nitroaniline	ND	210	42	ug/kg	
99-09-2	3-Nitroaniline	ND	210	42	ug/kg	
100-01-6	4-Nitroaniline	ND	210	42	ug/kg	
91-20-3	Naphthalene	ND	210	21	ug/kg	
98-95-3	Nitrobenzene	ND	210	21	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	210	25	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	210	21	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	210	21	ug/kg	
85-01-8	Phenanthrene	ND	210	21	ug/kg	
129-00-0	Pyrene	ND	210	21	ug/kg	
110-86-1	Pyridine	ND	420	42	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	210	21	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		40-102%
4165-62-2	Phenol-d5	60%		41-100%
118-79-6	2,4,6-Tribromophenol	70%		42-108%
4165-60-0	Nitrobenzene-d5	61%		40-105%
321-60-8	2-Fluorobiphenyl	62%		43-107%
1718-51-0	Terphenyl-d14	84%		45-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.51	3300	ug/kg	JN
	Total TIC, Semi-Volatile		3300	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-2-3		
Lab Sample ID:	FA14744-1	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
		Percent Solids:	78.5
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	0.22 U	2.2	0.22	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Arsenic [a]	0.40 B	1.1	0.22	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Beryllium	0.20 B	0.27	0.027	mg/kg	1	05/09/14	05/12/14	LM	SW846 6010C [2]	SW846 3050B [5]
Cadmium [a]	0.060 B	0.44	0.054	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Chromium [a]	29.0	1.1	0.11	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Copper [a]	14.9	2.7	0.11	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Lead [a]	9.0	2.2	0.17	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Manganese [a]	76.2	1.6	0.054	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Mercury	0.10	0.051	0.0051	mg/kg	1	05/08/14	05/08/14	JL	SW846 7471B [1]	SW846 7471B [4]
Nickel [a]	3.4 B	4.4	0.054	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Selenium [a]	0.33 U	2.2	0.33	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Silver [a]	0.10 B	1.1	0.071	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Thallium [b]	1.6 U	2.2	1.6	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]
Zinc [b]	9.0	2.2	0.33	mg/kg	2	05/09/14	05/13/14	LM	SW846 6010C [3]	SW846 3050B [5]

(1) Instrument QC Batch: MA11584
(2) Instrument QC Batch: MA11592
(3) Instrument QC Batch: MA11594
(4) Prep QC Batch: MP27229
(5) Prep QC Batch: MP27241

(a) Elevated reporting limit(s) due to matrix interference.
(b) Elevated reporting limit(s) due to matrix interference. Manually elevated.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C098256.D	1	05/06/14	AH	n/a	n/a	VC3939
Run #2							

	Initial Weight
Run #1	6.08 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	56	17	ug/kg	
107-02-8	Acrolein	ND	28	12	ug/kg	
107-13-1	Acrylonitrile	ND	28	8.7	ug/kg	
71-43-2	Benzene	ND	5.6	1.1	ug/kg	
108-86-1	Bromobenzene	ND	5.6	1.2	ug/kg	
74-97-5	Bromochloromethane	ND	5.6	2.1	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	1.1	ug/kg	
75-25-2	Bromoform	ND	5.6	1.2	ug/kg	
104-51-8	n-Butylbenzene	ND	5.6	1.1	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.6	1.1	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.6	1.1	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	1.1	ug/kg	
75-00-3	Chloroethane	ND	5.6	2.5	ug/kg	
67-66-3	Chloroform	ND	5.6	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.6	1.1	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.6	1.1	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	28	11	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	1.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	1.1	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	1.1	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.6	1.2	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.6	2.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.6	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	1.1	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	1.1	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.6	1.1	ug/kg	
123-91-1	1,4-Dioxane	ND	220	59	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.6	1.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	1.1	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.6	1.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	1.1	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	1.1	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.6	1.1	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.6	1.1	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.6	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	1.1	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	1.1	ug/kg	
591-78-6	2-Hexanone	ND	28	5.5	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.6	1.1	ug/kg	
98-82-8	Isopropylbenzene	ND	5.6	1.1	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.6	1.1	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	28	5.6	ug/kg	
74-83-9	Methyl bromide	ND	5.6	2.1	ug/kg	
74-87-3	Methyl chloride	ND	5.6	2.2	ug/kg	
74-95-3	Methylene bromide	ND	5.6	1.3	ug/kg	
75-09-2	Methylene chloride	ND	11	4.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	28	8.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.6	1.1	ug/kg	
91-20-3	Naphthalene	ND	5.6	2.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.6	1.1	ug/kg	
100-42-5	Styrene	ND	5.6	1.1	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.6	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	1.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	1.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.6	1.3	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.6	2.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	1.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.6	1.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.6	1.1	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	1.4	ug/kg	
108-88-3	Toluene	ND	5.6	1.1	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	1.1	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.6	1.1	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	1.1	ug/kg	
108-05-4	Vinyl Acetate	ND	28	9.0	ug/kg	
	m,p-Xylene	ND	11	1.8	ug/kg	
95-47-6	o-Xylene	ND	5.6	1.2	ug/kg	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8260B	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-124%
2037-26-5	Toluene-D8	102%		75-126%
460-00-4	4-Bromofluorobenzene	101%		71-133%
17060-07-0	1,2-Dichloroethane-D4	105%		72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/kg	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X034835.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
Run #2							

	Initial Weight	Final Volume
Run #1	29.7 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	1100	230	ug/kg	
95-57-8	2-Chlorophenol	ND	230	23	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	230	23	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	230	24	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	230	25	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	230	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	460	91	ug/kg	
95-48-7	2-Methylphenol	ND	230	23	ug/kg	
	3&4-Methylphenol	ND	230	46	ug/kg	
88-75-5	2-Nitrophenol	ND	230	23	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	180	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	180	ug/kg	
108-95-2	Phenol	ND	230	23	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	230	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	230	23	ug/kg	
83-32-9	Acenaphthene	ND	230	29	ug/kg	
208-96-8	Acenaphthylene	ND	230	23	ug/kg	
62-53-3	Aniline	ND	230	23	ug/kg	
120-12-7	Anthracene	ND	230	23	ug/kg	
92-87-5	Benzidine	ND	2300	460	ug/kg	
56-55-3	Benzo(a)anthracene	ND	230	23	ug/kg	
50-32-8	Benzo(a)pyrene	ND	230	23	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	230	23	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	230	23	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	230	25	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	230	23	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	230	46	ug/kg	
100-51-6	Benzyl Alcohol	ND	230	23	ug/kg	
91-58-7	2-Chloronaphthalene	ND	230	27	ug/kg	
106-47-8	4-Chloroaniline	ND	230	23	ug/kg	
86-74-8	Carbazole	ND	230	23	ug/kg	
218-01-9	Chrysene	ND	230	23	ug/kg	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	230	23	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	230	23	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	230	24	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	230	34	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	230	23	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	230	26	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	230	23	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	230	23	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	230	26	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	230	25	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	230	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	230	23	ug/kg	
132-64-9	Dibenzofuran	ND	230	23	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	460	46	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	230	46	ug/kg	
84-66-2	Diethyl phthalate	ND	460	46	ug/kg	
131-11-3	Dimethyl phthalate	ND	230	46	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	460	46	ug/kg	
206-44-0	Fluoranthene	ND	230	23	ug/kg	
86-73-7	Fluorene	ND	230	23	ug/kg	
118-74-1	Hexachlorobenzene	ND	230	23	ug/kg	
87-68-3	Hexachlorobutadiene	ND	230	23	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	230	23	ug/kg	
67-72-1	Hexachloroethane	ND	230	23	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	230	23	ug/kg	
78-59-1	Isophorone	ND	230	23	ug/kg	
90-12-0	1-Methylnaphthalene	ND	230	23	ug/kg	
91-57-6	2-Methylnaphthalene	ND	230	23	ug/kg	
88-74-4	2-Nitroaniline	ND	230	46	ug/kg	
99-09-2	3-Nitroaniline	ND	230	46	ug/kg	
100-01-6	4-Nitroaniline	ND	230	46	ug/kg	
91-20-3	Naphthalene	ND	230	23	ug/kg	
98-95-3	Nitrobenzene	ND	230	23	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	230	27	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	230	23	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	230	23	ug/kg	
85-01-8	Phenanthrene	ND	230	23	ug/kg	
129-00-0	Pyrene	ND	230	23	ug/kg	
110-86-1	Pyridine	ND	460	46	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	230	23	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-39-10-11		
Lab Sample ID:	FA14744-2	**Date Sampled:**	05/05/14
Matrix:	SO - Soil	**Date Received:**	05/06/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	73.6
Project:	ECI; 100 Rego Dr, Elon, NC		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		40-102%
4165-62-2	Phenol-d5	55%		41-100%
118-79-6	2,4,6-Tribromophenol	61%		42-108%
4165-60-0	Nitrobenzene-d5	56%		40-105%
321-60-8	2-Fluorobiphenyl	57%		43-107%
1718-51-0	Terphenyl-d14	77%		45-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.51	4400	ug/kg	JN
	Total TIC, Semi-Volatile		4400	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA 14744

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 Situs Ct. Suite 250
City: Raleigh State: NC Zip: 27606
Project Contact: Lane.Dorman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): G. Kanellis

Project Information

Project Name: ECI Elon
Street: 100 Rago Dr
City: Elon State: NC
Project #:
Fax #:
Client Purchase Order #:

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH-ZnAc	DI Water	MeOH	VOCs 8260 + 10 TICs	1,4 Dioxane 8260 SIM	HSL metals *	SVOC 8270 + 10 TICs										
1	GP-39-2-3	5/6/14	1445	GK	SO	5		2						1	2	X	X	X	X										
2	GP-39-10-11	5/6/14	1515	GK	SO	5		2						1	2	X	X	X	X										

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH, NC

SVC CENTER

Comments / Remarks

* Hold HSL metals analysis on GP-39-10-11 pending GP-39-2-3 results and ERM approval

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	5/6/14 1700	2	3		4
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5 FO 05-06-14	945	6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.4

FA14744: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA14744 CLIENT: ERM PROJECT: ECI ELOW

DATE/TIME RECEIVED: 050614 945 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7987 5730 5316

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [x] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? 2

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.0
- [ ] CORRECTED TEMPS: 2.4

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE R Will 05 06 14 REVIEWER SIGNATURE/DATE 05/06/14

RS 04/14 receipt confirmation 041514.xls

4.1

4

FA14744: Chain of Custody

Page 2 of 3

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J14101402070326

Ship Date: 05MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

SHIP TO: (407) 425-6700

BILL SENDER

Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

Ref #
Invoice #
PO #
Dept #

TUE - 06 MAY AA
STANDARD OVERNIGHT

TRK# 0201 7987 5730 5316

NB TIXA

32811
FL-US
MCO

522G1/6203/F220

After printing this label:
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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-MB	C098253.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/kg	
107-02-8	Acrolein	ND	25	11	ug/kg	
107-13-1	Acrylonitrile	ND	25	7.8	ug/kg	
71-43-2	Benzene	ND	5.0	1.0	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.1	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	1.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.3	ug/kg	
67-66-3	Chloroform	ND	5.0	1.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	25	10	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/kg	
123-91-1	1,4-Dioxane	ND	200	53	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-MB	C098253.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
591-78-6	2-Hexanone	ND	25	4.9	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.9	ug/kg	
74-87-3	Methyl chloride	ND	5.0	2.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	1.2	ug/kg	
75-09-2	Methylene chloride	ND	10	4.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	25	7.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
108-05-4	Vinyl Acetate	ND	25	8.0	ug/kg	
	m,p-Xylene	ND	10	1.6	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-MB	C098253.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	75-124%
2037-26-5	Toluene-D8	101%	75-126%
460-00-4	4-Bromofluorobenzene	101%	71-133%
17060-07-0	1,2-Dichloroethane-D4	100%	72-135%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	column bleed	14.59	14	ug/kg	J
	Total TIC, Volatile		14	ug/kg	J

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-BS	C098252.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	260	104	61-152
107-02-8	Acrolein	250	281	112	48-178
107-13-1	Acrylonitrile	250	290	116	66-134
71-43-2	Benzene	50	53.1	106	76-126
108-86-1	Bromobenzene	50	52.6	105	76-122
74-97-5	Bromochloromethane	50	52.5	105	77-120
75-27-4	Bromodichloromethane	50	53.6	107	74-130
75-25-2	Bromoform	50	52.3	105	76-127
104-51-8	n-Butylbenzene	50	53.8	108	71-128
135-98-8	sec-Butylbenzene	50	54.9	110	79-135
98-06-6	tert-Butylbenzene	50	56.8	114	77-133
108-90-7	Chlorobenzene	50	55.1	110	81-129
75-00-3	Chloroethane	50	54.6	109	68-133
67-66-3	Chloroform	50	60.2	120	72-123
95-49-8	o-Chlorotoluene	50	55.7	111	77-129
106-43-4	p-Chlorotoluene	50	57.5	115	80-134
110-75-8	2-Chloroethyl vinyl ether	250	272	109	45-159
75-15-0	Carbon disulfide	50	57.8	116	72-122
56-23-5	Carbon tetrachloride	50	50.7	101	78-133
75-34-3	1,1-Dichloroethane	50	60.7	121	73-125
75-35-4	1,1-Dichloroethylene	50	53.3	107	81-136
563-58-6	1,1-Dichloropropene	50	54.4	109	75-130
96-12-8	1,2-Dibromo-3-chloropropane	50	52.6	105	70-137
106-93-4	1,2-Dibromoethane	50	55.1	110	77-126
107-06-2	1,2-Dichloroethane	50	53.0	106	74-128
78-87-5	1,2-Dichloropropane	50	52.7	105	74-125
142-28-9	1,3-Dichloropropane	50	54.3	109	76-122
123-91-1	1,4-Dioxane	1000	1200	120	56-152
594-20-7	2,2-Dichloropropane	50	40.0	80	77-133
124-48-1	Dibromochloromethane	50	54.7	109	76-127
75-71-8	Dichlorodifluoromethane	50	50.5	101	68-168
156-59-2	cis-1,2-Dichloroethylene	50	52.6	105	74-126
10061-01-5	cis-1,3-Dichloropropene	50	53.3	107	80-123
541-73-1	m-Dichlorobenzene	50	56.3	113	81-129
95-50-1	o-Dichlorobenzene	50	56.4	113	80-129
106-46-7	p-Dichlorobenzene	50	51.9	104	76-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-BS	C098252.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
156-60-5	trans-1,2-Dichloroethylene	50	49.9	100	70-127
10061-02-6	trans-1,3-Dichloropropene	50	56.6	113	75-131
100-41-4	Ethylbenzene	50	51.4	103	77-123
591-78-6	2-Hexanone	250	292	117	72-133
87-68-3	Hexachlorobutadiene	50	54.3	109	74-136
98-82-8	Isopropylbenzene	50	58.7	117	80-136
99-87-6	p-Isopropyltoluene	50	55.0	110	77-131
108-10-1	4-Methyl-2-pentanone	250	290	116	76-132
74-83-9	Methyl bromide	50	61.1	122	65-139
74-87-3	Methyl chloride	50	54.6	109	71-144
74-95-3	Methylene bromide	50	53.1	106	74-124
75-09-2	Methylene chloride	50	54.1	108	74-137
78-93-3	Methyl ethyl ketone	250	272	109	75-137
1634-04-4	Methyl Tert Butyl Ether	50	50.1	100	77-120
91-20-3	Naphthalene	50	58.2	116	79-129
103-65-1	n-Propylbenzene	50	56.5	113	80-135
100-42-5	Styrene	50	54.9	110	78-125
630-20-6	1,1,1,2-Tetrachloroethane	50	53.7	107	78-126
71-55-6	1,1,1-Trichloroethane	50	50.0	100	70-129
79-34-5	1,1,2,2-Tetrachloroethane	50	53.3	107	71-126
79-00-5	1,1,2-Trichloroethane	50	54.3	109	74-124
87-61-6	1,2,3-Trichlorobenzene	50	54.1	108	77-128
96-18-4	1,2,3-Trichloropropane	50	55.3	111	74-127
120-82-1	1,2,4-Trichlorobenzene	50	54.4	109	78-130
95-63-6	1,2,4-Trimethylbenzene	50	51.7	103	74-123
108-67-8	1,3,5-Trimethylbenzene	50	50.6	101	73-122
127-18-4	Tetrachloroethylene	50	51.4	103	79-130
108-88-3	Toluene	50	54.0	108	76-124
79-01-6	Trichloroethylene	50	52.6	105	75-128
75-69-4	Trichlorofluoromethane	50	49.2	98	73-145
75-01-4	Vinyl chloride	50	52.3	105	76-141
108-05-4	Vinyl Acetate	250	254	102	48-164
	m,p-Xylene	100	105	105	80-128
95-47-6	o-Xylene	50	58.6	117	80-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3939-BS	C098252.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	75-124%
2037-26-5	Toluene-D8	106%	75-126%
460-00-4	4-Bromofluorobenzene	102%	71-133%
17060-07-0	1,2-Dichloroethane-D4	98%	72-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14744-1MS	C098257.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1MSD	C098258.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1	C098255.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	FA14744-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	31.1	J	352	329	85	353	292	74	12	61-152/27
107-02-8	Acrolein	ND		352	303	86	353	276	78	9	48-178/37
107-13-1	Acrylonitrile	ND		352	371	105	353	304	86	20	66-134/26
71-43-2	Benzene	ND		70.5	64.6	92	70.6	67.0	95	4	76-126/26
108-86-1	Bromobenzene	ND		70.5	65.6	93	70.6	66.5	94	1	76-122/32
74-97-5	Bromochloromethane	ND		70.5	63.6	90	70.6	64.1	91	1	77-120/24
75-27-4	Bromodichloromethane	ND		70.5	64.9	92	70.6	67.0	95	3	74-130/25
75-25-2	Bromoform	ND		70.5	64.6	92	70.6	62.8	89	3	76-127/26
104-51-8	n-Butylbenzene	ND		70.5	64.7	92	70.6	67.5	96	4	71-128/35
135-98-8	sec-Butylbenzene	ND		70.5	64.5	92	70.6	66.4	94	3	79-135/34
98-06-6	tert-Butylbenzene	ND		70.5	69.2	98	70.6	70.8	100	2	77-133/34
108-90-7	Chlorobenzene	ND		70.5	68.2	97	70.6	69.0	98	1	81-129/29
75-00-3	Chloroethane	ND		70.5	60.2	85	70.6	71.0	101	16	68-133/29
67-66-3	Chloroform	ND		70.5	74.9	106	70.6	76.5	108	2	72-123/26
95-49-8	o-Chlorotoluene	ND		70.5	68.7	98	70.6	70.6	100	3	77-129/33
106-43-4	p-Chlorotoluene	ND		70.5	71.7	102	70.6	73.1	104	2	80-134/33
110-75-8	2-Chloroethyl vinyl ether	ND		352	336	95	353	341	97	1	45-159/26
75-15-0	Carbon disulfide	ND		70.5	65.0	92	70.6	70.8	100	9	72-122/29
56-23-5	Carbon tetrachloride	ND		70.5	62.4	89	70.6	65.5	93	5	78-133/29
75-34-3	1,1-Dichloroethane	ND		70.5	74.9	106	70.6	75.7	107	1	73-125/27
75-35-4	1,1-Dichloroethylene	ND		70.5	65.1	92	70.6	65.9	93	1	81-136/28
563-58-6	1,1-Dichloropropene	ND		70.5	65.7	93	70.6	66.3	94	1	75-130/28
96-12-8	1,2-Dibromo-3-chloropropane	ND		70.5	65.2	93	70.6	62.7	89	4	70-137/29
106-93-4	1,2-Dibromoethane	ND		70.5	65.5	93	70.6	64.4	91	2	77-126/26
107-06-2	1,2-Dichloroethane	ND		70.5	66.8	95	70.6	67.1	95	0	74-128/23
78-87-5	1,2-Dichloropropane	ND		70.5	63.8	91	70.6	66.6	94	4	74-125/25
142-28-9	1,3-Dichloropropane	ND		70.5	66.0	94	70.6	65.4	93	1	76-122/26
123-91-1	1,4-Dioxane	ND		1410	1100	78	1410	1330	94	19	56-152/37
594-20-7	2,2-Dichloropropane	ND		70.5	46.0	65*	70.6	88.8	126	64*	77-133/28
124-48-1	Dibromochloromethane	ND		70.5	66.8	95	70.6	65.7	93	2	76-127/27
75-71-8	Dichlorodifluoromethane	ND		70.5	54.9	78	70.6	58.4	83	6	68-168/29
156-59-2	cis-1,2-Dichloroethylene	ND		70.5	62.9	89	70.6	65.2	92	4	74-126/26
10061-01-5	cis-1,3-Dichloropropene	ND		70.5	64.4	91	70.6	66.9	95	4	80-123/26
541-73-1	m-Dichlorobenzene	ND		70.5	68.7	98	70.6	70.8	100	3	81-129/33
95-50-1	o-Dichlorobenzene	ND		70.5	67.2	95	70.6	69.2	98	3	80-129/32
106-46-7	p-Dichlorobenzene	ND		70.5	64.4	91	70.6	65.9	93	2	76-130/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14744-1MS	C098257.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1MSD	C098258.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1	C098255.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Compound	FA14744-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
156-60-5	trans-1,2-Dichloroethylene	ND		70.5	61.8	88	70.6	63.3	90	2	70-127/27
10061-02-6	trans-1,3-Dichloropropene	ND		70.5	71.0	101	70.6	69.0	98	3	75-131/28
100-41-4	Ethylbenzene	ND		70.5	64.0	91	70.6	64.2	91	0	77-123/31
591-78-6	2-Hexanone	ND		352	364	103	353	336	95	8	72-133/26
87-68-3	Hexachlorobutadiene	ND		70.5	51.4	73*	70.6	59.1	84	14	74-136/38
98-82-8	Isopropylbenzene	ND		70.5	71.0	101	70.6	71.4	101	1	80-136/32
99-87-6	p-Isopropyltoluene	ND		70.5	66.0	94	70.6	68.4	97	4	77-131/34
108-10-1	4-Methyl-2-pentanone	ND		352	363	103	353	332	94	9	76-132/26
74-83-9	Methyl bromide	ND		70.5	69.7	99	70.6	74.9	106	7	65-139/31
74-87-3	Methyl chloride	ND		70.5	58.8	83	70.6	61.8	88	5	71-144/27
74-95-3	Methylene bromide	ND		70.5	63.4	90	70.6	65.4	93	3	74-124/24
75-09-2	Methylene chloride	ND		70.5	68.1	97	70.6	73.1	104	7	74-137/28
78-93-3	Methyl ethyl ketone	ND		352	338	96	353	317	90	6	75-137/25
1634-04-4	Methyl Tert Butyl Ether	ND		70.5	63.8	91	70.6	64.3	91	1	77-120/24
91-20-3	Naphthalene	ND		70.5	63.0	89	70.6	64.1	91	2	79-129/33
103-65-1	n-Propylbenzene	ND		70.5	70.7	100	70.6	70.7	100	0	80-135/33
100-42-5	Styrene	ND		70.5	66.7	95	70.6	66.8	95	0	78-125/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		70.5	67.3	96	70.6	65.9	93	2	78-126/27
71-55-6	1,1,1-Trichloroethane	ND		70.5	61.2	87	70.6	67.2	95	9	70-129/27
79-34-5	1,1,2,2-Tetrachloroethane	ND		70.5	66.4	94	70.6	64.2	91	3	71-126/30
79-00-5	1,1,2-Trichloroethane	ND		70.5	66.3	94	70.6	62.9	89	5	74-124/28
87-61-6	1,2,3-Trichlorobenzene	ND		70.5	57.0	81	70.6	59.0	84	3	77-128/35
96-18-4	1,2,3-Trichloropropane	ND		70.5	69.6	99	70.6	66.0	93	5	74-127/27
120-82-1	1,2,4-Trichlorobenzene	ND		70.5	59.5	84	70.6	62.9	89	6	78-130/34
95-63-6	1,2,4-Trimethylbenzene	ND		70.5	64.3	91	70.6	65.8	93	2	74-123/34
108-67-8	1,3,5-Trimethylbenzene	ND		70.5	64.0	91	70.6	65.1	92	2	73-122/33
127-18-4	Tetrachloroethylene	ND		70.5	62.9	89	70.6	62.0	88	1	79-130/31
108-88-3	Toluene	ND		70.5	66.3	94	70.6	66.7	94	1	76-124/30
79-01-6	Trichloroethylene	ND		70.5	64.2	91	70.6	65.9	93	3	75-128/27
75-69-4	Trichlorofluoromethane	ND		70.5	58.6	83	70.6	62.7	89	7	73-145/31
75-01-4	Vinyl chloride	ND		70.5	56.7	80	70.6	62.8	89	10	76-141/27
108-05-4	Vinyl Acetate	ND		352	362	103	353	259	73	33	48-164/37
	m,p-Xylene	ND		141	132	94	141	130	92	2	80-128/30
95-47-6	o-Xylene	ND		70.5	71.7	102	70.6	72.6	103	1	80-132/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14744-1MS	C098257.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1MSD	C098258.D	1	05/06/14	AH	n/a	n/a	VC3939
FA14744-1	C098255.D	1	05/06/14	AH	n/a	n/a	VC3939

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries	MS	MSD	FA14744-1	Limits
1868-53-7	Dibromofluoromethane	98%	97%	108%	75-124%
2037-26-5	Toluene-D8	105%	103%	100%	75-126%
460-00-4	4-Bromofluorobenzene	101%	102%	101%	71-133%
17060-07-0	1,2-Dichloroethane-D4	99%	96%	107%	72-135%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MB	X034822.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	830	170	ug/kg	
95-57-8	2-Chlorophenol	ND	170	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	18	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	67	ug/kg	
95-48-7	2-Methylphenol	ND	170	17	ug/kg	
	3&4-Methylphenol	ND	170	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	17	ug/kg	
100-02-7	4-Nitrophenol	ND	830	130	ug/kg	
87-86-5	Pentachlorophenol	ND	830	130	ug/kg	
108-95-2	Phenol	ND	170	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	21	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	17	ug/kg	
83-32-9	Acenaphthene	ND	170	21	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
62-53-3	Aniline	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	17	ug/kg	
92-87-5	Benzidine	ND	1700	330	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	33	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	17	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	20	ug/kg	
106-47-8	4-Chloroaniline	ND	170	17	ug/kg	
86-74-8	Carbazole	ND	170	17	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	17	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	17	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	25	ug/kg	

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MB	X034822.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	170	17	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	170	19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	17	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	19	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	18	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	17	ug/kg	
132-64-9	Dibenzofuran	ND	170	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	330	33	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	33	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	33	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	17	ug/kg	
67-72-1	Hexachloroethane	ND	170	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	17	ug/kg	
78-59-1	Isophorone	ND	170	17	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
88-74-4	2-Nitroaniline	ND	170	33	ug/kg	
99-09-2	3-Nitroaniline	ND	170	33	ug/kg	
100-01-6	4-Nitroaniline	ND	170	33	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
98-95-3	Nitrobenzene	ND	170	17	ug/kg	
62-75-9	N-Nitrosodimethylamine	ND	170	19	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	17	ug/kg	
110-86-1	Pyridine	ND	330	33	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	17	ug/kg	

Method Blank Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MB	X034822.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	68%	40-102%
4165-62-2	Phenol-d5	70%	41-100%
118-79-6	2,4,6-Tribromophenol	73%	42-108%
4165-60-0	Nitrobenzene-d5	71%	40-105%
321-60-8	2-Fluorobiphenyl	73%	43-107%
1718-51-0	Terphenyl-d14	103%	45-119%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.51	3100	ug/kg	JN
	Total TIC, Semi-Volatile		3100	ug/kg	J

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-BS	X034821.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic Acid	3330	2070	62	36-118
95-57-8	2-Chlorophenol	1670	1120	67	48-104
59-50-7	4-Chloro-3-methyl phenol	1670	1150	69	52-108
120-83-2	2,4-Dichlorophenol	1670	1110	67	51-105
105-67-9	2,4-Dimethylphenol	1670	1150	69	43-96
51-28-5	2,4-Dinitrophenol	3330	2770	83	40-119
534-52-1	4,6-Dinitro-o-cresol	3330	2840	85	64-121
95-48-7	2-Methylphenol	1670	1100	66	46-107
	3&4-Methylphenol	3330	2230	67	44-111
88-75-5	2-Nitrophenol	1670	1090	65	49-104
100-02-7	4-Nitrophenol	3330	2600	78	56-116
87-86-5	Pentachlorophenol	3330	3080	92	61-114
108-95-2	Phenol	1670	1140	68	45-110
95-95-4	2,4,5-Trichlorophenol	1670	1320	79	58-112
88-06-2	2,4,6-Trichlorophenol	1670	1320	79	56-109
83-32-9	Acenaphthene	1670	1330	80	56-109
208-96-8	Acenaphthylene	1670	1350	81	56-106
62-53-3	Aniline	1670	1170	70	42-108
120-12-7	Anthracene	1670	1380	83	61-110
92-87-5	Benzidine	1670	1090	65	10-109
56-55-3	Benzo(a)anthracene	1670	1440	86	66-111
50-32-8	Benzo(a)pyrene	1670	1410	85	59-104
205-99-2	Benzo(b)fluoranthene	1670	1430	86	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1420	85	67-113
207-08-9	Benzo(k)fluoranthene	1670	1490	89	67-114
101-55-3	4-Bromophenyl phenyl ether	1670	1150	69	62-110
85-68-7	Butyl benzyl phthalate	1670	1590	95	65-113
100-51-6	Benzyl Alcohol	1670	1210	73	53-108
91-58-7	2-Chloronaphthalene	1670	1250	75	53-106
106-47-8	4-Chloroaniline	1670	1070	64	30-115
86-74-8	Carbazole	1670	1420	85	60-111
218-01-9	Chrysene	1670	1490	89	65-112
111-91-1	bis(2-Chloroethoxy)methane	1670	1120	67	48-105
111-44-4	bis(2-Chloroethyl)ether	1670	1060	64	46-103
108-60-1	bis(2-Chloroisopropyl)ether	1670	1150	69	40-110
7005-72-3	4-Chlorophenyl phenyl ether	1670	1280	77	58-106

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-BS	X034821.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	1670	1010	61	44-102
122-66-7	1,2-Diphenylhydrazine	1670	1310	79	58-112
541-73-1	1,3-Dichlorobenzene	1670	1010	61	42-100
106-46-7	1,4-Dichlorobenzene	1670	1080	65	40-106
121-14-2	2,4-Dinitrotoluene	1670	1290	77	59-109
606-20-2	2,6-Dinitrotoluene	1670	1330	80	61-107
91-94-1	3,3'-Dichlorobenzidine	1670	1290	77	36-114
53-70-3	Dibenzo(a,h)anthracene	1670	1420	85	68-115
132-64-9	Dibenzofuran	1670	1340	80	57-108
84-74-2	Di-n-butyl phthalate	1670	1370	82	63-108
117-84-0	Di-n-octyl phthalate	1670	1610	97	64-119
84-66-2	Diethyl phthalate	1670	1340	80	61-109
131-11-3	Dimethyl phthalate	1670	1300	78	59-108
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1430	86	64-115
206-44-0	Fluoranthene	1670	1360	82	60-108
86-73-7	Fluorene	1670	1380	83	58-109
118-74-1	Hexachlorobenzene	1670	1320	79	59-111
87-68-3	Hexachlorobutadiene	1670	1120	67	41-108
77-47-4	Hexachlorocyclopentadiene	1670	1110	67	49-110
67-72-1	Hexachloroethane	1670	1050	63	40-105
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1320	79	66-116
78-59-1	Isophorone	1670	1110	67	42-89
90-12-0	1-Methylnaphthalene	1670	898	54	49-106
91-57-6	2-Methylnaphthalene	1670	1170	70	47-106
88-74-4	2-Nitroaniline	1670	1460	88	56-123
99-09-2	3-Nitroaniline	1670	1180	71	41-111
100-01-6	4-Nitroaniline	1670	1380	83	54-113
91-20-3	Naphthalene	1670	1130	68	44-104
98-95-3	Nitrobenzene	1670	1100	66	43-108
62-75-9	N-Nitrosodimethylamine	1670	1070	64	40-106
621-64-7	N-Nitroso-di-n-propylamine	1670	1150	69	48-108
86-30-6	N-Nitrosodiphenylamine	1670	1340	80	62-110
85-01-8	Phenanthrene	1670	1410	85	63-111
129-00-0	Pyrene	1670	1480	89	65-115
110-86-1	Pyridine	1670	942	57	31-102
120-82-1	1,2,4-Trichlorobenzene	1670	1030	62	45-100

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-BS	X034821.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	68%	40-102%
4165-62-2	Phenol-d5	70%	41-100%
118-79-6	2,4,6-Tribromophenol	79%	42-108%
4165-60-0	Nitrobenzene-d5	65%	40-105%
321-60-8	2-Fluorobiphenyl	75%	43-107%
1718-51-0	Terphenyl-d14	97%	45-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MS	X034825.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
OP51541-MSD	X034826.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
FA14780-9	X034824.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	FA14780-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		3840	2270	59	3890	2310	59	2	36-118/41
95-57-8	2-Chlorophenol	ND		1920	1300	68	1950	1370	70	5	48-104/26
59-50-7	4-Chloro-3-methyl phenol	ND		1920	1300	68	1950	1380	71	6	52-108/21
120-83-2	2,4-Dichlorophenol	ND		1920	1250	65	1950	1340	69	7	51-105/27
105-67-9	2,4-Dimethylphenol	ND		1920	1340	70	1950	1390	71	4	43-96/23
51-28-5	2,4-Dinitrophenol	ND		3840	3200	83	3890	3400	87	6	40-119/32
534-52-1	4,6-Dinitro-o-cresol	ND		3840	3340	87	3890	3560	91	6	64-121/29
95-48-7	2-Methylphenol	ND		1920	1280	67	1950	1310	67	2	46-107/24
	3&4-Methylphenol	ND		3840	2580	67	3890	2680	69	4	44-111/24
88-75-5	2-Nitrophenol	ND		1920	1270	66	1950	1340	69	5	49-104/27
100-02-7	4-Nitrophenol	ND		3840	2850	74	3890	3070	79	7	56-116/23
87-86-5	Pentachlorophenol	ND		3840	3610	94	3890	3830	98	6	61-114/23
108-95-2	Phenol	ND		1920	1310	68	1950	1340	69	2	45-110/24
95-95-4	2,4,5-Trichlorophenol	ND		1920	1420	74	1950	1590	82	11	58-112/22
88-06-2	2,4,6-Trichlorophenol	ND		1920	1460	76	1950	1580	81	8	56-109/25
83-32-9	Acenaphthene	ND		1920	1500	78	1950	1600	82	6	56-109/23
208-96-8	Acenaphthylene	ND		1920	1510	79	1950	1590	82	5	56-106/23
62-53-3	Aniline	ND		1920	1260	66	1950	1280	66	2	42-108/28
120-12-7	Anthracene	ND		1920	1590	83	1950	1660	85	4	61-110/21
92-87-5	Benzidine	ND		1920	939	49	1950	978	50	4	10-109/35
56-55-3	Benzo(a)anthracene	ND		1920	1650	86	1950	1750	90	6	66-111/23
50-32-8	Benzo(a)pyrene	ND		1920	1610	84	1950	1720	88	7	59-104/23
205-99-2	Benzo(b)fluoranthene	ND		1920	1710	89	1950	1760	90	3	67-113/24
191-24-2	Benzo(g,h,i)perylene	ND		1920	1620	84	1950	1670	86	3	67-113/21
207-08-9	Benzo(k)fluoranthene	ND		1920	1780	93	1950	1830	94	3	67-114/22
101-55-3	4-Bromophenyl phenyl ether	ND		1920	1310	68	1950	1410	72	7	62-110/21
85-68-7	Butyl benzyl phthalate	ND		1920	1830	95	1950	1870	96	2	65-113/20
100-51-6	Benzyl Alcohol	ND		1920	1340	70	1950	1410	72	5	53-108/24
91-58-7	2-Chloronaphthalene	ND		1920	1430	74	1950	1510	78	5	53-106/23
106-47-8	4-Chloroaniline	ND		1920	1130	59	1950	1210	62	7	30-115/30
86-74-8	Carbazole	ND		1920	1580	82	1950	1670	86	6	60-111/19
218-01-9	Chrysene	ND		1920	1700	88	1950	1800	92	6	65-112/25
111-91-1	bis(2-Chloroethoxy)methane	ND		1920	1280	67	1950	1340	69	5	48-105/24
111-44-4	bis(2-Chloroethyl)ether	ND		1920	1250	65	1950	1300	67	4	46-103/27
108-60-1	bis(2-Chloroisopropyl)ether	ND		1920	1430	74	1950	1350	69	6	40-110/25
7005-72-3	4-Chlorophenyl phenyl ether	ND		1920	1410	73	1950	1520	78	8	58-106/21

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MS	X034825.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
OP51541-MSD	X034826.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
FA14780-9	X034824.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Compound	FA14780-9 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	ND		1920	1170	61	1950	1210	62	3	44-102/28
122-66-7	1,2-Diphenylhydrazine	ND		1920	1570	82	1950	1640	84	4	58-112/22
541-73-1	1,3-Dichlorobenzene	ND		1920	1160	60	1950	1200	62	3	42-100/30
106-46-7	1,4-Dichlorobenzene	ND		1920	1260	66	1950	1300	67	3	40-106/29
121-14-2	2,4-Dinitrotoluene	ND		1920	1410	73	1950	1500	77	6	59-109/20
606-20-2	2,6-Dinitrotoluene	ND		1920	1430	74	1950	1520	78	6	61-107/22
91-94-1	3,3'-Dichlorobenzidine	ND		1920	1380	72	1950	1540	79	11	36-114/28
53-70-3	Dibenzo(a,h)anthracene	ND		1920	1680	87	1950	1710	88	2	68-115/23
132-64-9	Dibenzofuran	ND		1920	1480	77	1950	1570	81	6	57-108/22
84-74-2	Di-n-butyl phthalate	ND		1920	1600	83	1950	1690	87	5	63-108/19
117-84-0	Di-n-octyl phthalate	ND		1920	2170	113	1950	2140	110	1	64-119/21
84-66-2	Diethyl phthalate	ND		1920	1500	78	1950	1580	81	5	61-109/20
131-11-3	Dimethyl phthalate	ND		1920	1410	73	1950	1510	78	7	59-108/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		1920	1890	98	1950	1980	102	5	64-115/23
206-44-0	Fluoranthene	ND		1920	1530	80	1950	1650	85	8	60-108/25
86-73-7	Fluorene	ND		1920	1520	79	1950	1630	84	7	58-109/21
118-74-1	Hexachlorobenzene	ND		1920	1510	79	1950	1630	84	8	59-111/21
87-68-3	Hexachlorobutadiene	ND		1920	1310	68	1950	1370	70	4	41-108/27
77-47-4	Hexachlorocyclopentadiene	ND		1920	1270	66	1950	1340	69	5	49-110/31
67-72-1	Hexachloroethane	ND		1920	1250	65	1950	1260	65	1	40-105/32
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1920	1520	79	1950	1560	80	3	66-116/22
78-59-1	Isophorone	ND		1920	1310	68	1950	1370	70	4	42-89/22
90-12-0	1-Methylnaphthalene	ND		1920	1020	53	1950	1080	55	6	49-106/26
91-57-6	2-Methylnaphthalene	ND		1920	1300	68	1950	1350	69	4	47-106/27
88-74-4	2-Nitroaniline	ND		1920	1590	83	1950	1660	85	4	56-123/24
99-09-2	3-Nitroaniline	ND		1920	1250	65	1950	1350	69	8	41-111/25
100-01-6	4-Nitroaniline	ND		1920	1440	75	1950	1550	80	7	54-113/22
91-20-3	Naphthalene	ND		1920	1320	69	1950	1370	70	4	44-104/27
98-95-3	Nitrobenzene	ND		1920	1280	67	1950	1300	67	2	43-108/25
62-75-9	N-Nitrosodimethylamine	ND		1920	1230	64	1950	1220	63	1	40-106/27
621-64-7	N-Nitroso-di-n-propylamine	ND		1920	1350	70	1950	1380	71	2	48-108/27
86-30-6	N-Nitrosodiphenylamine	ND		1920	1550	81	1950	1660	85	7	62-110/21
85-01-8	Phenanthrene	ND		1920	1600	83	1950	1680	86	5	63-111/22
129-00-0	Pyrene	ND		1920	1670	87	1950	1750	90	5	65-115/25
110-86-1	Pyridine	ND		1920	1020	53	1950	980	50	4	31-102/38
120-82-1	1,2,4-Trichlorobenzene	ND		1920	1190	62	1950	1250	64	5	45-100/26

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14744
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51541-MS	X034825.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
OP51541-MSD	X034826.D	1	05/14/14	MV	05/08/14	OP51541	SX1630
FA14780-9	X034824.D	1	05/14/14	MV	05/08/14	OP51541	SX1630

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA14744-1, FA14744-2

CAS No.	Surrogate Recoveries	MS	MSD	FA14780-9	Limits
367-12-4	2-Fluorophenol	65%	68%	67%	40-102%
4165-62-2	Phenol-d5	68%	71%	68%	41-100%
118-79-6	2,4,6-Tribromophenol	76%	82%	77%	42-108%
4165-60-0	Nitrobenzene-d5	64%	66%	69%	40-105%
321-60-8	2-Fluorobiphenyl	72%	77%	73%	43-107%
1718-51-0	Terphenyl-d14	94%	100%	103%	45-119%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27229
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/08/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.042	.0025	.0042	-0.0026	<0.042

Associated samples MP27229: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27229
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/08/14 05/08/14

Metal	FA14667-1 Original	DUP	RPD	QC Limits	FA14667-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.017	0.012	34.5 (a)	0-20	0.017	0.33	0.286	109.4	80-120

Associated samples MP27229: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27229
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/08/14

Metal	FA14667-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.017	0.33	0.278	112.8	0.0	20

Associated samples MP27229: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

7.1.2

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27229
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/08/14

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.24	0.25	96.0	80-120

Associated samples MP27229: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.3

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SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27229
Matrix Type: SOLID

Methods: SW846 7471B
Units: ug/l

Prep Date: 05/08/14

Metal	FA14667-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.170	0.00	100.0(a)	0-10

Associated samples MP27229: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4

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BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/09/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.75	1.6		
Antimony	1.0	.1	.1	0.025	<1.0
Arsenic	0.50	.1	.1	-0.080	<0.50
Barium	10	.05	.05		
Beryllium	0.25	.025	.025	-0.0050	<0.25
Cadmium	0.20	.025	.025	0.0	<0.20
Calcium	250	2.5	2.5		
Chromium	0.50	.05	.05	0.0050	<0.50
Cobalt	2.5	.025	.025		
Copper	1.3	.05	.05	-0.035	<1.3
Iron	15	.85	1.3		
Lead	1.0	.055	.08	-0.020	<1.0
Magnesium	250	2.5	2.5		
Manganese	0.75	.025	.025	0.0050	<0.75
Molybdenum	2.5	.025	.03		
Nickel	2.0	.025	.025	-0.010	<2.0
Potassium	500	10	10		
Selenium	1.0	.12	.15	0.070	<1.0
Silver	0.50	.033	.033	-0.015	<0.50
Sodium	500	25	25		
Strontium	0.50	.02	.025		
Thallium	0.50	.075	.075	-0.11	<0.50
Tin	2.5	.035	.035		
Titanium	0.50	.045	.045		
Vanadium	2.5	.025	.025		
Zinc	1.0	.15	.15	0.19	<1.0

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:			05/09/14					05/09/14	
Metal	FA14808-1 Original	DUP	RPD	QC Limits	FA14808-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr								
Antimony	0.0	0.0 (a)	NC	0-20	0.0	16.8 (a)	25.2	66.5N(d)	80-120
Arsenic	0.0	1.4 (a)	200.0(b)	0-20	0.0	104 (a)	101	103.0	80-120
Barium	anr								
Beryllium	0.24	0.36 (a)	40.0 (b)	0-20	0.24	2.8 (a)	2.52	101.4	80-120
Cadmium	2.1	2.1 (a)	0.0	0-20	2.1	4.2 (a)	2.52	83.2	80-120
Calcium	anr								
Chromium	22.1	31.1 (a)	33.8*(c)	0-20	22.1	30.4 (a)	10.1	82.2	80-120
Cobalt	anr								
Copper	4.3	5.9 (a)	31.4 (b)	0-20	4.3	16.5 (a)	12.6	96.6	80-120
Iron	anr								
Lead	2.4	5.3 (a)	75.3 (b)	0-20	2.4	28.5 (a)	25.2	103.4	80-120
Magnesium	anr								
Manganese	29.8	32.4 (a)	8.4	0-20	29.8	50.7 (a)	25.2	82.8	80-120
Molybdenum									
Nickel	5.8	9.5 (a)	48.4 (b)	0-20	5.8	30.3 (a)	25.2	97.0	80-120
Potassium	anr								
Selenium	0.0	0.0 (a)	NC	0-20	0.0	104 (a)	101	103.0	80-120
Silver	0.0	0.0 (a)	NC	0-20	0.0	2.4 (a)	2.52	95.1	80-120
Sodium	anr								
Strontium									
Thallium	0.0	0.0 (a)	NC	0-20	0.0	102 (a)	101	101.0	80-120
Tin									
Titanium									
Vanadium	anr								
Zinc	6.9	8.6 (a)	21.9 (b)	0-20	6.9	30.1 (a)	25.2	91.9	80-120

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.
(c) High RPD due to possible sample non-homogeneity.
(d) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/09/14

Metal	FA14808-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	0.0	19.4 (a)	26.1	74.3N(b)	14.4	20
Arsenic	0.0	108 (a)	104	103.5	3.8	20
Barium	anr					
Beryllium	0.24	3.0 (a)	2.61	105.8	6.9	20
Cadmium	2.1	4.2 (a)	2.61	80.5	0.0	20
Calcium	anr					
Chromium	22.1	34.1 (c)	10.4	115.0	11.5	20
Cobalt	anr					
Copper	4.3	19.0 (c)	13	112.7	14.1	20
Iron	anr					
Lead	2.4	30.3 (c)	26.1	106.9	6.1	20
Magnesium	anr					
Manganese	29.8	61.3 (c)	26.1	120.7N(b	18.9	20
Molybdenum						
Nickel	5.8	35.5 (c)	26.1	113.8	15.8	20
Potassium	anr					
Selenium	0.0	105 (c)	104	100.6	1.0	20
Silver	0.0	2.5 (c)	2.61	95.8	4.1	20
Sodium	anr					
Strontium						
Thallium	0.0	105 (c)	104	100.6	2.9	20
Tin						
Titanium						
Vanadium	anr					
Zinc	6.9	32.7 (c)	26.1	98.9	8.3	20

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.
(c) Elevated reporting limit(s) due to matrix interference. Manually elevated.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/09/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr			
Antimony	24.7	25	98.8	80-120
Arsenic	98.8	100	98.8	80-120
Barium	anr			
Beryllium	2.7	2.5	108.0	80-120
Cadmium	2.5	2.5	100.0	80-120
Calcium	anr			
Chromium	10.6	10	106.0	80-120
Cobalt	anr			
Copper	13.2	12.5	105.6	80-120
Iron	anr			
Lead	24.1	25	96.4	80-120
Magnesium	anr			
Manganese	26.7	25	106.8	80-120
Molybdenum				
Nickel	26.1	25	104.4	80-120
Potassium	anr			
Selenium	97.5	100	97.5	80-120
Silver	2.4	2.5	96.0	80-120
Sodium	anr			
Strontium				
Thallium	95.8	100	95.8	80-120
Tin				
Titanium				
Vanadium	anr			
Zinc	25.5	25	102.0	80-120

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/09/14

Metal	FA14808-1 Original	SDL 10:50%DIF		QC Limits
Aluminum	anr			
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	anr			
Beryllium	5.10	0.00	100.0(a)	0-10
Cadmium	43.8	44.0	0.5	0-10
Calcium	anr			
Chromium	467	546	17.0 (a)	0-10
Cobalt	anr			
Copper	91.7	100	9.5	0-10
Iron	anr			
Lead	50.1	60.6	21.0 (a)	0-10
Magnesium	anr			
Manganese	629	664	5.5	0-10
Molybdenum				
Nickel	122	147	20.7 (a)	0-10
Potassium	anr			
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	anr			
Zinc	145	167	15.5 (a)	0-10

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA14744
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27241
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/09/14

Metal	Sample ml	Final ml	FA14808-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			116.4	0.2	5	100	116.4	80-120
Arsenic	9.8	10			118.5	0.2	5	100	118.5	80-120
Barium										
Beryllium	9.8	10	5.1	4.998	55.8	0.2	2.5	50	101.6	80-120
Cadmium	9.8	10	43.8	42.924	97.5	0.2	2.5	50	109.2	80-120
Calcium										
Chromium	9.8	10	466.5	457.17	556.4	0.2	2.5	50	198.5*(a	80-120
Cobalt										
Copper	9.8	10	91.7	89.866	190.8	0.2	5	100	100.9	80-120
Iron										
Lead	9.8	10	50.1	49.098	109.8	0.2	2.5	50	121.4*(a	80-120
Magnesium										
Manganese	9.8	10	628.9	616.322	721.1	0.2	2.5	50	209.6*(a	80-120
Molybdenum										
Nickel	9.8	10	121.5	119.07	232.8	0.2	5	100	113.7	80-120
Potassium										
Selenium	9.8	10			100.1	0.2	5	100	100.1	80-120
Silver	9.8	10			44.6	0.2	2.5	50	89.2	80-120
Sodium										
Strontium										
Thallium	9.8	10			88.4	0.2	5	100	88.4	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	144.9	142.002	395.3	0.2	12.5	250	101.3	80-120

Associated samples MP27241: FA14744-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA14906

Sampling Date: 05/08/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **59**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

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Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA14906

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA14906-1	05/08/14	14:00	GK	05/10/14	AQ	Ground Water	GP-45-41
FA14906-2	05/08/14	17:45	GK	05/10/14	AQ	Ground Water	GP-46-39.5
FA14906-3	05/08/14	18:30	GK	05/10/14	AQ	Ground Water	GP-47-39
FA14906-4	05/08/14	19:15	GK	05/10/14	AQ	Ground Water	GP-48-43
FA14906-5	05/08/14	22:30	GK	05/10/14	AQ	Ground Water	GP-50-48
FA14906-6	05/08/14	21:00	GK	05/10/14	SO	Soil	GP-49-5-7
FA14906-7	05/08/14	21:10	GK	05/10/14	SO	Soil	GP-49-28-30
FA14906-8	05/08/14	00:00	GK	05/10/14	AQ	Trip Blank Water	TRIP BLANK-3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA14906
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/08/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14906-1	**GP-45-41**					
Toluene		0.32 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		2.0	1.0	0.30	ug/l	SW846 8260B
Total TIC, Volatile		25 J			ug/l	
FA14906-2	**GP-46-39.5**					
Chloroform		0.62 J	1.0	0.31	ug/l	SW846 8260B
Toluene		0.28 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		4.1	1.0	0.30	ug/l	SW846 8260B
FA14906-3	**GP-47-39**					
Chloroform		1.1	1.0	0.31	ug/l	SW846 8260B
Methyl Tert Butyl Ether		0.47 J	1.0	0.20	ug/l	SW846 8260B
Toluene		0.25 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		8.0	1.0	0.30	ug/l	SW846 8260B
FA14906-4	**GP-48-43**					
Chloroform		4.1	1.0	0.31	ug/l	SW846 8260B
Carbon disulfide		0.33 J	2.0	0.20	ug/l	SW846 8260B
Toluene		0.22 J	1.0	0.20	ug/l	SW846 8260B
Total TIC, Volatile		267 J			ug/l	
FA14906-5	**GP-50-48**					
Chloroform		1.3	1.0	0.31	ug/l	SW846 8260B
Toluene		0.49 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		53.8	1.0	0.30	ug/l	SW846 8260B
FA14906-6	**GP-49-5-7**					
Beryllium		0.12 B	0.28	0.028	mg/kg	SW846 6010C
Copper		11.8	1.4	0.057	mg/kg	SW846 6010C
Manganese		55.8	0.85	0.028	mg/kg	SW846 6010C
Nickel		2.1 B	2.3	0.028	mg/kg	SW846 6010C
Zinc		5.8	1.1	0.17	mg/kg	SW846 6010C
FA14906-7	**GP-49-28-30**					

No hits reported in this sample.

Summary of Hits

Job Number: FA14906
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/08/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14906-8	**TRIP BLANK-3**					
Total TIC, Volatile		30 J			ug/l	

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GP-45-41		
Lab Sample ID:	FA14906-1	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25676.D	1	05/19/14	DP	n/a	n/a	VZ1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	108%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-45-41		
Lab Sample ID:	FA14906-1	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25594.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-45-41		
Lab Sample ID:	FA14906-1	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.32	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	2.0	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-45-41		
Lab Sample ID:	FA14906-1	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	113%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	94%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
75-07-0	Acetaldehyde	3.35	25	ug/l	JN
	Total TIC, Volatile		25	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-46-39.5		
Lab Sample ID:	FA14906-2	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25653.D	1	05/16/14	DP	n/a	n/a	VZ1003
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	100%		74-125%
2037-26-5	Toluene-D8	108%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-46-39.5		
Lab Sample ID:	FA14906-2	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25595.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.62	1.0	0.31	ug/l	J
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-46-39.5		
Lab Sample ID:	FA14906-2	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.28	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	4.1	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-46-39.5		
Lab Sample ID:	FA14906-2	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	112%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	93%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-47-39		
Lab Sample ID:	FA14906-3	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25654.D	1	05/16/14	DP	n/a	n/a	VZ1003
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		74-125%
2037-26-5	Toluene-D8	108%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-47-39		
Lab Sample ID:	FA14906-3	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25596.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.1	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-47-39		
Lab Sample ID:	FA14906-3	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.47	1.0	0.20	ug/l	J
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.25	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	8.0	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-47-39		
Lab Sample ID:	FA14906-3	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	113%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-48-43		
Lab Sample ID:	FA14906-4	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25655.D	1	05/16/14	DP	n/a	n/a	VZ1003
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	105%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-48-43		
Lab Sample ID:	FA14906-4	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25597.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	4.1	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.33	2.0	0.20	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-48-43		
Lab Sample ID:	FA14906-4	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.22	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-48-43		
Lab Sample ID:	FA14906-4	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	114%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	94%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
74-99-7	1-Propyne	2.69	49	ug/l	JN
106-98-9	1-Butene	2.89	97	ug/l	JN
106-97-8	Butane	2.98	32	ug/l	JN
1191-96-4	Cyclopropane, ethyl-	3.72	33	ug/l	JN
67-64-1	Acetone	5.05	56	ug/l	JN
	Total TIC, Volatile		267	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-50-48		
Lab Sample ID:	FA14906-5	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25656.D	1	05/16/14	DP	n/a	n/a	VZ1003
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		74-125%
2037-26-5	Toluene-D8	109%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-50-48		
Lab Sample ID:	FA14906-5	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25598.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.3	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-50-48		
Lab Sample ID:	FA14906-5	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.49	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	53.8	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-50-48		
Lab Sample ID:	FA14906-5	**Date Sampled:**	05/08/14
Matrix:	AQ - Ground Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	112%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	92%		83-118%

CAS No.	Tentatively Identified Compounds [a]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-49-5-7		
Lab Sample ID:	FA14906-6	**Date Sampled:**	05/08/14
Matrix:	SO - Soil	**Date Received:**	05/10/14
		Percent Solids:	79.7
Project:	ECI; 100 Rego Dr, Elon, NC		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.11 U	1.1	0.11	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Beryllium	0.12 B	0.28	0.028	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Copper	11.8	1.4	0.057	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Manganese	55.8	0.85	0.028	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Nickel	2.1 B	2.3	0.028	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Thallium	0.085 U	0.57	0.085	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]
Zinc	5.8	1.1	0.17	mg/kg	1	05/15/14	05/15/14	LM	SW846 6010C [1]	SW846 3050B [2]

(1) Instrument QC Batch: MA11602
(2) Prep QC Batch: MP27261

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GP-49-28-30		
Lab Sample ID:	FA14906-7	**Date Sampled:**	05/08/14
Matrix:	SO - Soil	**Date Received:**	05/10/14
		Percent Solids:	59.3
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	59.3		%	1	05/13/14 10:52	LE	SM19 2540G

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK-3		
Lab Sample ID:	FA14906-8	**Date Sampled:**	05/08/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25599.D	1	05/15/14	KW	n/a	n/a	VZ1001
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-3		
Lab Sample ID:	FA14906-8	**Date Sampled:**	05/08/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-3		
Lab Sample ID:	FA14906-8	**Date Sampled:**	05/08/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/10/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	115%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	90%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
75-37-6	Ethane, 1,1-difluoro-	2.56	30	ug/l	JN
	Total TIC, Volatile		30	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA14906

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 Situs Ct. Suite 250
City: Raleigh State: NC Zip: 27606
Project Contact: Lane Berman E-mail: lane.berman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): G. Kunelis

Project Information

Project Name: ECI Elon
Street: 100 Rego Dr.
City: Elon State: NC
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By:	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOC +10 TICs 8260	1,4 Dioxane 8260 SIM	Total Sb, Be, Cu, Mg, Ni, Tl, Zn
1	GP-45-41	5/9/14	1900	GK	GW	6			6							X	X	
2	GP-46-39.5		1745															
3	GP-47-39		1830															
4	GP-48-43		1915															
5	GP-50-48		2200															
6	GP-49-5-7		2100		SO	1			1									X
7	GP-49-28-30		2110		SO	1			1									X
8	Trip Blank-3		-	-	WW	2			2							X		

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH.NC

SVC CENTER

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 [signature]	5/9/13 1110	2 Brent Nadler	3 Brent Nadler	5/9/14 1705	4 FX
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5 FP 05/10/14	10:15	6 [signature]	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 20

FA14906: Chain of Custody
Page 1 of 4

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA14906 CLIENT: ERM PROJECT: ECI

DATE/TIME RECEIVED: 051014 1015 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7988 1586 8674

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 1.6
- [ ] CORRECTED TEMPS: 2.0

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 051014 REVIEWER SIGNATURE/DATE 05/10/14

RS 04/14 receipt confirmation 041514.xls

4.1

4

FA14906: Chain of Custody

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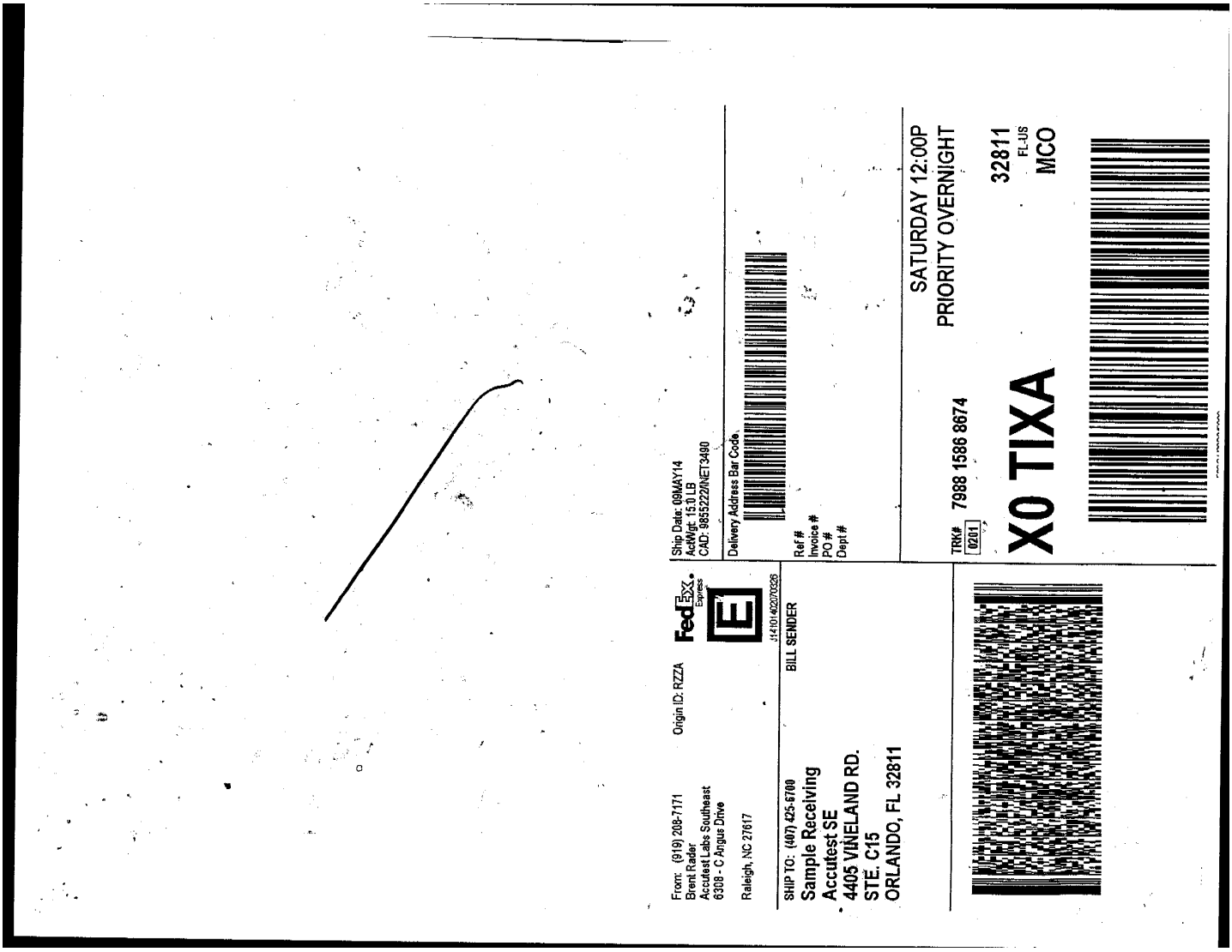

FA14906: Chain of Custody
Page 3 of 4

Job Change Order: FA14906_5/14/2014

Requested Date:	5/14/2014	**Received Date:**	5/10/2014
Account Name:	ERM	**Due Date:**	5/20/2014
Project	ECI; 100 Rego Dr, Elon, NC	**Deliverable:**	COMMB
CSR:	JDS	**TAT (Days):**	10

Sample #:
FA14906-7

Change: Per client, please hold sample until further notice.
Thank you.

GP-49-28-30

Above Changes Per: client, Greg Kanellis, via e-mail **Date:** 5/14/2014

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

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FA14906: Chain of Custody
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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1003-MB	Z25633.D	1	05/16/14	DP	n/a	n/a	VZ1003

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-2, FA14906-3, FA14906-4, FA14906-5

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.34	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	112%	74-125%
2037-26-5	Toluene-D8	107%	88-111%

Method Blank Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1004-MB	Z25667.D	1	05/19/14	DP	n/a	n/a	VZ1004

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-1

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	101%	74-125%
2037-26-5	Toluene-D8	108%	88-111%

Method Blank Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.65	1.0	0.50	ug/l	J
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-MB	Z25573.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

Blank Spike Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1003-BS	Z25632.D	1	05/16/14	DP	n/a	n/a	VZ1003

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-2, FA14906-3, FA14906-4, FA14906-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	40.9	82	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	112%	74-125%
2037-26-5	Toluene-D8	106%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1004-BS	Z25665.D	1	05/19/14	DP	n/a	n/a	VZ1004

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	41.0	82	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	74-125%
2037-26-5	Toluene-D8	109%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	137	110	50-147
107-02-8	Acrolein	125	125	100	31-154
107-13-1	Acrylonitrile	125	149	119	58-126
71-43-2	Benzene	25	23.9	96	81-122
108-86-1	Bromobenzene	25	21.9	88	80-121
74-97-5	Bromochloromethane	25	21.0	84	76-123
75-27-4	Bromodichloromethane	25	21.4	86	79-123
75-25-2	Bromoform	25	21.7	87	66-123
104-51-8	n-Butylbenzene	25	23.3	93	79-126
135-98-8	sec-Butylbenzene	25	27.2	109	83-133
98-06-6	tert-Butylbenzene	25	26.4	106	80-133
108-90-7	Chlorobenzene	25	24.7	99	82-124
75-00-3	Chloroethane	25	26.6	106	62-144
67-66-3	Chloroform	25	23.7	95	80-124
95-49-8	o-Chlorotoluene	25	25.9	104	81-127
106-43-4	p-Chlorotoluene	25	27.0	108	83-130
110-75-8	2-Chloroethyl vinyl ether	125	117	94	56-122
75-15-0	Carbon disulfide	25	23.8	95	66-148
56-23-5	Carbon tetrachloride	25	21.2	85	76-136
75-34-3	1,1-Dichloroethane	25	24.4	98	81-122
75-35-4	1,1-Dichloroethylene	25	23.9	96	78-137
563-58-6	1,1-Dichloropropene	25	25.6	102	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	23.5	94	64-123
106-93-4	1,2-Dibromoethane	25	21.8	87	75-120
107-06-2	1,2-Dichloroethane	25	23.1	92	75-125
78-87-5	1,2-Dichloropropane	25	23.3	93	76-124
142-28-9	1,3-Dichloropropane	25	23.1	92	80-118
594-20-7	2,2-Dichloropropane	25	25.9	104	74-139
124-48-1	Dibromochloromethane	25	19.5	78	78-122
75-71-8	Dichlorodifluoromethane	25	32.5	130	42-167
156-59-2	cis-1,2-Dichloroethylene	25	22.0	88	78-120
10061-01-5	cis-1,3-Dichloropropene	25	21.1	84	75-118
541-73-1	m-Dichlorobenzene	25	24.2	97	84-125
95-50-1	o-Dichlorobenzene	25	22.7	91	82-124
106-46-7	p-Dichlorobenzene	25	22.3	89	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.7	95	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	24.5	98	80-120
100-41-4	Ethylbenzene	25	23.7	95	81-121
591-78-6	2-Hexanone	125	121	97	61-129
87-68-3	Hexachlorobutadiene	25	24.2	97	75-142
98-82-8	Isopropylbenzene	25	23.8	95	83-132
99-87-6	p-Isopropyltoluene	25	24.2	97	79-130
108-10-1	4-Methyl-2-pentanone	125	121	97	66-122
74-83-9	Methyl bromide	25	29.6	118	59-143
74-87-3	Methyl chloride	25	32.2	129	50-159
74-95-3	Methylene bromide	25	22.8	91	78-119
75-09-2	Methylene chloride	25	24.3	97	69-135
78-93-3	Methyl ethyl ketone	125	113	90	56-143
1634-04-4	Methyl Tert Butyl Ether	25	22.0	88	72-117
91-20-3	Naphthalene	25	22.6	90	63-132
103-65-1	n-Propylbenzene	25	27.2	109	82-133
100-42-5	Styrene	25	19.4	78	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	23.8	95	77-122
71-55-6	1,1,1-Trichloroethane	25	24.1	96	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	24.5	98	72-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	76-119
87-61-6	1,2,3-Trichlorobenzene	25	24.6	98	68-131
96-18-4	1,2,3-Trichloropropane	25	22.1	88	77-120
120-82-1	1,2,4-Trichlorobenzene	25	22.0	88	73-129
95-63-6	1,2,4-Trimethylbenzene	25	24.1	96	79-120
108-67-8	1,3,5-Trimethylbenzene	25	23.1	92	79-120
127-18-4	Tetrachloroethylene	25	23.1	92	76-135
108-88-3	Toluene	25	23.6	94	80-120
79-01-6	Trichloroethylene	25	24.1	96	81-126
75-69-4	Trichlorofluoromethane	25	29.2	117	71-156
75-01-4	Vinyl chloride	25	28.3	113	69-159
108-05-4	Vinyl Acetate	125	147	118	43-154
	m,p-Xylene	50	49.2	98	79-126
95-47-6	o-Xylene	25	25.3	101	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1001-BS	Z25572.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	93%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14837-2MS	Z25657.D	1	05/16/14	DP	n/a	n/a	VZ1003
FA14837-2MSD	Z25658.D	1	05/16/14	DP	n/a	n/a	VZ1003
FA14837-2 [a]	Z25647.D	1	05/16/14	DP	n/a	n/a	VZ1003

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-2, FA14906-3, FA14906-4, FA14906-5

CAS No.	Compound	FA14837-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	4.2		50	42.9	77	50	44.6	81	4	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA14837-2	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	100%	103%	74-125%
2037-26-5	Toluene-D8	109%	109%	108%	88-111%

(a) Confirmation run.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15066-1MS	Z25687.D	1	05/19/14	DP	n/a	n/a	VZ1004
FA15066-1MSD	Z25688.D	1	05/19/14	DP	n/a	n/a	VZ1004
FA15066-1 [a]	Z25682.D	1	05/19/14	DP	n/a	n/a	VZ1004

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA14906-1

CAS No.	Compound	FA15066-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	1.1		50	38.7	75	50	40.0	78	3	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA15066-1	Limits
17060-07-0	1,2-Dichloroethane-D4	96%	95%	99%	74-125%
2037-26-5	Toluene-D8	111%	110%	112%* [b]	88-111%

(a) Confirmation run.
(b) Outside control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	FA14697-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	72.4	58	125	78.7	63	8	50-147/21
107-02-8	Acrolein	ND		125	83.3	67	125	89.7	72	7	31-154/29
107-13-1	Acrylonitrile	ND		125	109	87	125	122	98	11	58-126/16
71-43-2	Benzene	ND		25	23.7	95	25	23.3	93	2	81-122/14
108-86-1	Bromobenzene	ND		25	20.9	84	25	20.8	83	0	80-121/14
74-97-5	Bromochloromethane	ND		25	19.4	78	25	20.0	80	3	76-123/14
75-27-4	Bromodichloromethane	ND		25	20.0	80	25	19.4	78*	3	79-123/19
75-25-2	Bromoform	ND		25	16.4	66	25	16.7	67	2	66-123/21
104-51-8	n-Butylbenzene	ND		25	22.1	88	25	21.2	85	4	79-126/16
135-98-8	sec-Butylbenzene	ND		25	25.8	103	25	25.2	101	2	83-133/16
98-06-6	tert-Butylbenzene	ND		25	25.2	101	25	24.9	100	1	80-133/16
108-90-7	Chlorobenzene	ND		25	24.1	96	25	23.3	93	3	82-124/14
75-00-3	Chloroethane	ND		25	26.2	105	25	25.6	102	2	62-144/20
67-66-3	Chloroform	ND		25	22.7	91	25	22.7	91	0	80-124/15
95-49-8	o-Chlorotoluene	ND		25	25.1	100	25	24.8	99	1	81-127/15
106-43-4	p-Chlorotoluene	ND		25	25.2	101	25	24.9	100	1	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	125	ND	0*	nc	56-122/23
75-15-0	Carbon disulfide	ND		25	19.6	78	25	19.7	79	1	66-148/23
56-23-5	Carbon tetrachloride	ND		25	19.9	80	25	19.1	76	4	76-136/23
75-34-3	1,1-Dichloroethane	3.4		25	27.3	96	25	27.0	94	1	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	23.0	92	25	23.6	94	3	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	23.2	93	25	23.4	94	1	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.0	92	25	24.3	97	5	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	20.5	82	25	20.9	84	2	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	23.3	93	25	22.9	92	2	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	23.1	92	25	22.8	91	1	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	22.1	88	25	22.2	89	0	80-118/13
594-20-7	2,2-Dichloropropane	ND		25	23.3	93	25	22.9	92	2	74-139/17
124-48-1	Dibromochloromethane	ND		25	16.1	64*	25	16.0	64*	1	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	29.0	116	25	28.7	115	1	42-167/19
156-59-2	cis-1,2-Dichloroethylene	1.2		25	21.3	80	25	21.9	83	3	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	17.8	71*	25	17.5	70*	2	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	22.7	91	25	22.1	88	3	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	21.8	87	25	21.4	86	2	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	21.5	86	25	21.2	85	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	22.6	90	25	22.8	91	1	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Compound	FA14697-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	22.7	91	25	20.1	80	12	80-120/22
100-41-4	Ethylbenzene	ND		25	23.5	94	25	22.5	90	4	81-121/14
591-78-6	2-Hexanone	ND		125	99.8	80	125	106	85	6	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	21.2	85	25	21.4	86	1	75-142/19
98-82-8	Isopropylbenzene	ND		25	22.3	89	25	20.9	84	6	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	22.8	91	25	21.7	87	5	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	123	98	125	127	102	3	66-122/16
74-83-9	Methyl bromide	ND		25	27.8	111	25	28.9	116	4	59-143/19
74-87-3	Methyl chloride	ND		25	32.2	129	25	33.7	135	5	50-159/19
74-95-3	Methylene bromide	ND		25	22.1	88	25	22.5	90	2	78-119/14
75-09-2	Methylene chloride	ND		25	24.9	100	25	24.7	99	1	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	83.3	67	125	89.5	72	7	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	20.4	82	25	21.7	87	6	72-117/14
91-20-3	Naphthalene	ND		25	20.2	81	25	22.7	91	12	63-132/25
103-65-1	n-Propylbenzene	ND		25	25.6	102	25	25.5	102	0	82-133/15
100-42-5	Styrene	ND		25	16.6	66*	25	15.3	61*	8	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	22.6	90	25	20.3	81	11	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	22.8	91	25	22.9	92	0	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.6	98	25	25.5	102	4	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	22.6	90	25	22.0	88	3	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	20.9	84	25	23.2	93	10	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	21.3	85	25	22.3	89	5	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	19.9	80	25	20.6	82	3	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	22.3	89	25	21.1	84	6	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	21.4	86	25	20.2	81	6	79-120/19
127-18-4	Tetrachloroethylene	ND		25	22.0	88	25	20.4	82	8	76-135/16
108-88-3	Toluene	ND		25	22.2	89	25	21.1	84	5	80-120/14
79-01-6	Trichloroethylene	0.72	J	25	23.8	92	25	24.1	94	1	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	28.7	115	25	27.4	110	5	71-156/21
75-01-4	Vinyl chloride	0.91	J	25	28.1	109	25	28.9	112	3	69-159/18
108-05-4	Vinyl Acetate	ND		125	113	90	125	115	92	2	43-154/14
	m,p-Xylene	ND		50	47.3	95	50	45.0	90	5	79-126/15
95-47-6	o-Xylene	ND		25	23.4	94	25	22.0	88	6	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14906
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14697-19MS	Z25584.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19MSD	Z25585.D	1	05/15/14	KW	n/a	n/a	VZ1001
FA14697-19	Z25576.D	1	05/15/14	KW	n/a	n/a	VZ1001

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA14906-1, FA14906-2, FA14906-3, FA14906-4, FA14906-5, FA14906-8

CAS No.	Surrogate Recoveries	MS	MSD	FA14697-19	Limits
1868-53-7	Dibromofluoromethane	99%	101%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	109%	107%	110%	79-125%
2037-26-5	Toluene-D8	96%	95%	100%	85-112%
460-00-4	4-Bromofluorobenzene	90%	93%	98%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.75	1.6		
Antimony	1.0	.1	.1	0.040	<1.0
Arsenic	0.50	.1	.1		
Barium	10	.05	.05		
Beryllium	0.25	.025	.025	-0.0050	<0.25
Cadmium	0.20	.025	.025		
Calcium	250	2.5	2.5		
Chromium	0.50	.05	.05		
Cobalt	2.5	.025	.025		
Copper	1.3	.05	.05	-0.015	<1.3
Iron	15	.85	1.3		
Lead	1.0	.055	.08		
Magnesium	250	2.5	2.5		
Manganese	0.75	.025	.025	0.0050	<0.75
Molybdenum	2.5	.025	.03		
Nickel	2.0	.025	.025	0.0	<2.0
Potassium	500	10	10		
Selenium	1.0	.12	.15		
Silver	0.50	.033	.033		
Sodium	500	25	25		
Strontium	0.50	.02	.025		
Thallium	0.50	.075	.075	-0.10	<0.50
Tin	2.5	.035	.035		
Titanium	0.50	.045	.045		
Vanadium	2.5	.025	.025		
Zinc	1.0	.15	.15	0.15	<1.0

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:			05/15/14					05/15/14	
Metal	FA14745-26 Original	DUP	RPD	QC Limits	FA14745-26 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0	NC	0-20	0.0	8.6	25.7	33.5N(a)	80-120
Arsenic	anr								
Barium	anr								
Beryllium	0.061	0.063	3.2	0-20	0.061	2.8	2.57	106.6	80-120
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	0.51	0.59	14.5	0-20	0.51	14.0	12.8	105.0	80-120
Iron									
Lead	anr								
Magnesium									
Manganese	3.7	3.9	5.3	0-20	3.7	30.2	25.7	103.2	80-120
Molybdenum									
Nickel	0.92	0.99	7.3	0-20	0.92	27.3	25.7	102.7	80-120
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	99.4	103	96.7	80-120
Tin									
Titanium									
Vanadium									
Zinc	8.4	8.4	0.0	0-20	8.4	34.4	25.7	101.2	80-120

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/14

Metal	FA14745-26 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	6.2	22.3	27.8N(a)	32.4 (b)	20
Arsenic	anr					
Barium	anr					
Beryllium	0.061	2.4	2.23	104.9	15.4	20
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	0.51	12.2	11.2	104.8	13.7	20
Iron						
Lead	anr					
Magnesium						
Manganese	3.7	26.6	22.3	102.7	12.7	20
Molybdenum						
Nickel	0.92	23.4	22.3	100.8	15.4	20
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	0.0	85.3	89.2	95.6	15.3	20
Tin						
Titanium						
Vanadium						
Zinc	8.4	30.7	22.3	100.0	11.4	20

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.
(b) High RPD due to possible sample non-homogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/15/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	25.5	25	102.0	80-120
Arsenic	anr			
Barium	anr			
Beryllium	2.8	2.5	112.0	80-120
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	13.6	12.5	108.8	80-120
Iron				
Lead	anr			
Magnesium				
Manganese	27.3	25	109.2	80-120
Molybdenum				
Nickel	27.6	25	110.4	80-120
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	99.9	100	99.9	80-120
Tin				
Titanium				
Vanadium				
Zinc	27.2	25	108.8	80-120

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/15/14

Metal	FA14745-26 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	anr			
Barium	anr			
Beryllium	1.10	0.00	100.0(a)	0-10
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	9.20	10.1	9.8	0-10
Iron				
Lead	anr			
Magnesium				
Manganese	65.4	68.6	4.9	0-10
Molybdenum				
Nickel	16.4	15.4	6.1	0-10
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium				
Zinc	150	161	7.1	0-10

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA14906
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27261
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/15/14

Metal	Sample ml	Final ml	FA14745-26 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			96.1	0.2	5	100	96.1	80-120
Arsenic										
Barium										
Beryllium	9.8	10	1.1	1.078	54.3	0.2	2.5	50	106.4	80-120
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper	9.8	10	9.2	9.016	112.2	0.2	5	100	103.2	80-120
Iron										
Lead										
Magnesium										
Manganese	9.8	10	65.4	64.092	117	0.2	2.5	50	105.8	80-120
Molybdenum										
Nickel	9.8	10	16.4	16.072	120.1	0.2	5	100	104.0	80-120
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium	9.8	10			97.7	0.2	5	100	97.7	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	150.3	147.294	400.1	0.2	12.5	250	101.1	80-120

Associated samples MP27261: FA14906-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA15149

Sampling Dates: 05/19/14 - 05/20/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **93**

Norm Farmer
Technical Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Accutest LabLink@153230 11:48 12-Aug-2014

Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA15149

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA15149-1	05/20/14	09:25	RMTF	05/21/14	AQ	Ground Water	MW-1
FA15149-2	05/19/14	15:50	RMTF	05/21/14	AQ	Ground Water	DW-2
FA15149-3	05/19/14	17:05	RMTF	05/21/14	AQ	Ground Water	MW-2
FA15149-4	05/20/14	11:40	RMTF	05/21/14	AQ	Ground Water	MW-3
FA15149-5	05/20/14	10:50	RMTF	05/21/14	AQ	Ground Water	MW-4
FA15149-6	05/20/14	12:20	RMTF	05/21/14	AQ	Ground Water	MW-5
FA15149-7	05/19/14	17:00	RMTF	05/21/14	AQ	Ground Water	MW-6
FA15149-8	05/20/14	14:45	RMTF	05/21/14	AQ	Ground Water	MW-10
FA15149-9	05/20/14	00:00	RMTF	05/21/14	AQ	Ground Water	DUP-1
FA15149-10	05/20/14	15:10	RMTF	05/21/14	AQ	Ground Water	MW-12
FA15149-11	05/19/14	15:40	RMTF	05/21/14	AQ	Ground Water	MW-13
FA15149-12	05/19/14	00:00	RMTF	05/21/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: FA15149
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/19/14 thru 05/20/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15149-1	**MW-1**					
Copper		4.9 B	25	1.0	ug/l	SW846 6010C
Manganese		117	15	1.0	ug/l	SW846 6010C
Nickel		1.4 B	40	0.50	ug/l	SW846 6010C
Zinc		22.3	20	3.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.34	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		1.0 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.23 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15149-2	**DW-2**					
Ethylbenzene		0.37 J	1.0	0.28	ug/l	SW846 8260B
Tetrachloroethylene		0.56 J	1.0	0.26	ug/l	SW846 8260B
Toluene		0.22 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		49.7	1.0	0.30	ug/l	SW846 8260B
m,p-Xylene		1.1 J	2.0	0.48	ug/l	SW846 8260B
o-Xylene		0.34 J	1.0	0.20	ug/l	SW846 8260B
FA15149-3	**MW-2**					
Total TIC, Volatile		32 J			ug/l	
FA15149-4	**MW-3**					
Total TIC, Volatile		36 J			ug/l	
Iron		6980	300	17	ug/l	SW846 6010C
Manganese		89.5	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.11	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		1.1 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
FA15149-5	**MW-4**					
Chloroform		8.4	1.0	0.31	ug/l	SW846 8260B
Total TIC, Volatile		29 J			ug/l	
Nitrogen, Nitrate		0.17	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		11.3	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.31 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15149-6	**MW-5**					
1,4-Dioxane		0.47 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Total TIC, Volatile		38 J			ug/l	
Copper		6.6 B	25	1.0	ug/l	SW846 6010C
Manganese		45.0	15	1.0	ug/l	SW846 6010C

Summary of Hits

Job Number: FA15149
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/19/14 thru 05/20/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Nickel		4.7 B	40	0.50	ug/l	SW846 6010C
Zinc		33.3	20	3.0	ug/l	SW846 6010C
FA15149-7	**MW-6**					
No hits reported in this sample.						
FA15149-8	**MW-10**					
Trichloroethylene		9.5	1.0	0.30	ug/l	SW846 8260B
m,p-Xylene		0.51 J	2.0	0.48	ug/l	SW846 8260B
o-Xylene		0.25 J	1.0	0.20	ug/l	SW846 8260B
1,4-Dioxane		0.44 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Total TIC, Volatile		44 J			ug/l	
Copper		3.7 B	25	1.0	ug/l	SW846 6010C
Iron		2540	300	17	ug/l	SW846 6010C
Manganese		24.1	15	1.0	ug/l	SW846 6010C
Nickel		3.2 B	40	0.50	ug/l	SW846 6010C
Zinc		26.9	20	3.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.78	0.10	0.050	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.28 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15149-9	**DUP-1**					
Trichloroethylene		9.5	1.0	0.30	ug/l	SW846 8260B
1,4-Dioxane		0.39 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Copper		4.2 B	25	1.0	ug/l	SW846 6010C
Manganese		28.8	15	1.0	ug/l	SW846 6010C
Nickel		3.6 B	40	0.50	ug/l	SW846 6010C
Zinc		29.7	20	3.0	ug/l	SW846 6010C
FA15149-10	**MW-12**					
Total TIC, Volatile		56 J			ug/l	
FA15149-11	**MW-13**					
No hits reported in this sample.						
FA15149-12	**TRIP BLANK**					
Total TIC, Volatile		113 J			ug/l	

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25738.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	101%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	95%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	2.3 U	6.0	2.3	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	0.50 U	4.0	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	4.9 B	25	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Iron	17 U	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	117	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	1.4 B	40	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	2.0 U	10	2.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	22.3	20	3.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	FA15149-1	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.34	0.10	0.050	mg/l	1	05/21/14 16:53	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/21/14 16:53	CH	EPA 300/SW846 9056A
Sulfate	1.0 B	2.0	0.60	mg/l	1	05/21/14 16:53	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.23 B	1.0	0.23	mg/l	1	05/21/14 20:28	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15149-2	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25739.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	100%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15149-2	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74735.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15149-2	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.37	1.0	0.28	ug/l	J
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.56	1.0	0.26	ug/l	J
108-88-3	Toluene	0.22	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	49.7	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	1.1	2.0	0.48	ug/l	J
95-47-6	o-Xylene	0.34	1.0	0.20	ug/l	J

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15149-2	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	97%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA15149-3	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25740.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	101%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA15149-3	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74736.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA15149-3	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA15149-3	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
62-55-5	Ethanethioamide	5.81	32	ug/l	JN
	Total TIC, Volatile		32	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25741.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	100%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74737.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
764-48-7	Ethanol, 2-(ethenyloxy)-	4.24	36	ug/l	JN
	Total TIC, Volatile		36	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6980	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	89.5	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA15149-4	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.11	0.10	0.050	mg/l	1	05/21/14 17:10	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/21/14 17:10	CH	EPA 300/SW846 9056A
Sulfate	1.1 B	2.0	0.60	mg/l	1	05/21/14 17:10	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.23 U	1.0	0.23	mg/l	1	05/21/14 21:11	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25742.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	99%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74738.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	8.4	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
992-94-9	Silane, methyl-	4.69	29	ug/l	JN
	Total TIC, Volatile		29	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	17 U	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	1.0 U	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA15149-5	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.17	0.10	0.050	mg/l	1	05/21/14 17:27	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/21/14 17:27	CH	EPA 300/SW846 9056A
Sulfate	11.3	2.0	0.60	mg/l	1	05/21/14 17:27	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.31 B	1.0	0.23	mg/l	1	05/21/14 21:25	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	FA15149-6	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25743.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.47	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	100%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	FA15149-6	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74739.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	FA15149-6	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	FA15149-6	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
2345-38-2	Acetic acid, (trimethylsilyl)-	5.81	38	ug/l	JN
	Total TIC, Volatile		38	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	FA15149-6	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	2.3 U	6.0	2.3	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	0.50 U	4.0	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	6.6 B	25	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	45.0	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	4.7 B	40	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	2.0 U	10	2.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	33.3	20	3.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	FA15149-7	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25744.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	99%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	FA15149-7	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74740.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	FA15149-7	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	FA15149-7	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	97%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25747.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.44	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	98%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74741.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	9.5	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	0.51	2.0	0.48	ug/l	J
95-47-6	o-Xylene	0.25	1.0	0.20	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
1000226-68-3	2-Bromoethyl methyl sulfide	5.80	44	ug/l	JN
	Total TIC, Volatile		44	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	2.3 U	6.0	2.3	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	0.50 U	4.0	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	3.7 B	25	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Iron	2540	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	24.1	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	3.2 B	40	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	2.0 U	10	2.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	26.9	20	3.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-10		
Lab Sample ID:	FA15149-8	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.78	0.10	0.050	mg/l	1	05/21/14 17:44	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/21/14 17:44	CH	EPA 300/SW846 9056A
Sulfate	0.60 U	2.0	0.60	mg/l	1	05/21/14 17:44	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.28 B	1.0	0.23	mg/l	1	05/21/14 21:40	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA15149-9	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25748.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.39	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	98%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA15149-9	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74742.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA15149-9	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	9.5	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA15149-9	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-1		
Lab Sample ID:	FA15149-9	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	2.3 U	6.0	2.3	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	0.50 U	4.0	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	4.2 B	25	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	28.8	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	3.6 B	40	0.50	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	2.0 U	10	2.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	29.7	20	3.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	FA15149-10	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25745.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		74-125%
2037-26-5	Toluene-D8	100%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	FA15149-10	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74743.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	FA15149-10	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12		
Lab Sample ID:	FA15149-10	**Date Sampled:**	05/20/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
57502-48-4	Azocine, 1,2,3,4,7,8-hexahydro-	2.97	29	ug/l	JN
1000223-11-5	5-Dimethylaminomethyleneamino-4-methyl	3.19	27	ug/l	JN
	Total TIC, Volatile		56	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	FA15149-11	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25746.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%
2037-26-5	Toluene-D8	99%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	FA15149-11	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74744.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	FA15149-11	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13		
Lab Sample ID:	FA15149-11	**Date Sampled:**	05/19/14
Matrix:	AQ - Ground Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15149-12	**Date Sampled:**	05/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/21/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z25737.D	1	05/21/14	KW	n/a	n/a	VZ1006
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%
2037-26-5	Toluene-D8	101%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15149-12	**Date Sampled:**	05/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74729.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [a]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15149-12	**Date Sampled:**	05/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15149-12	**Date Sampled:**	05/19/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/21/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
632-14-4	Urea, trimethyl-	2.92	32	ug/l	JN
110-70-3	1,2-Ethanediamine, N,N'-dimethyl-	3.26	39	ug/l	JN
74-98-6	Propane	4.26	42	ug/l	JN
	Total TIC, Volatile		113	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA15149

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM NC, Inc
Address: 15720 John J. Delaney Dr Ste 170
City: Charlotte State: NC Zip: 28277
Project Contact: Lane Dorman E-mail: Lane.Dorman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): Thomas Fisher / Ryan Mayette

Project Information

Project Name: ECI-Elon
Street: 100 Reso Dr
City: Elon, NC State:
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOC 8260	MNA*	HSL**	1,4 D									Matrix Codes / Lab Use Only
1	MW-1	5/20/14	0925	Rm	GW	8		X	X		X					X	X	X	X									
2	DW-2	5/19/14	1650	TF	GW	3			X							X			X									
3	MW-2	5/19/14	1705	TF	GW	3			X							X			X									
4	MW-3	5/20/14	1140	TF	GW	7		X	X		X					X	X		X									
5	MW-4	5/20/14	1050	Rm	GW	7		X	X		X					X	X		X									
6	MW-5	5/20/14	1220	Rm	GW	4			X		X					X		X	X									
7	MW-6	5/19/14	1700	Rm	GW	3			X							X			X									
8	MW-10	5/20/14	1445	TF	GW	8		X	X		X					X	X	X	X									
9	Dup-1	5/20/14	—	TF	GW	4			X		X					X		X	X									
10	MW-12	5/20/14	1510	Rm	GW	3			X							X			X									
11	MW-13	5/19/14	1540	Rm	GW	3			X							X			X									
12	Trip Blank	—	—	—	LIQ	2			X							X			X									

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH.NC

SVC CENTER

Comments / Remarks

*MNA - Nitrate/Nitrite, Sulfate/Sulfite, Iron manganese, and Total Organic Carbon

**HSL - antimony, beryllium, copper, manganese, nickel, thallium, and zinc.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Thomas Fisher / ERM NC, Inc.	5/20/14 1530	2 Brent Rader	3 Brent Rader	5/20/14 1740	4 FX
5 RM 05-21-14	915	6 [illegible]	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 1.8

4.1 4

FA15149: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA15149 CLIENT: ERM PROJECT: ELI E400

DATE/TIME RECEIVED: 05-21-14 915 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7700 4373 6281

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 1.4
- [ ] CORRECTED TEMPS: 1.8

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [x] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

SUMMARY OF COMMENTS: No Dior vials Received For Samples 1-7, 10, 11

TECHNICIAN SIGNATURE/DATE [signature] 05-21-14 REVIEWER SIGNATURE/DATE [signature] 05/21/14

RS 04/14 receipt confirmation 041514.xls

4.1

4

FA15149: Chain of Custody
Page 2 of 3

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J1410140207032E

Ship Date: 20MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
BILL SENDER

Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

2 of 3

WED - 21 MAY AA
STANDARD OVERNIGHT

MPS# 7700 4373 6281
0263

Mstr# 7700 4373 6215

0201

XH TIXA

32811
FL-US
MCO

522G1/62D3/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1006-MB	Z25732.D	1	05/21/14	KW	n/a	n/a	VZ1006

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	100%	74-125%
2037-26-5	Toluene-D8	100%	88-111%

Method Blank Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
75-07-0	Acetaldehyde	2.19	65	ug/l	JN
	Total TIC, Volatile		65	ug/l	J

Blank Spike Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1006-BS	Z25731.D	1	05/21/14	KW	n/a	n/a	VZ1006

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	41.7	83	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	74-125%
2037-26-5	Toluene-D8	100%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	178	142	50-147
107-02-8	Acrolein	125	197	158*	31-154
107-13-1	Acrylonitrile	125	128	102	58-126
71-43-2	Benzene	25	25.4	102	81-122
108-86-1	Bromobenzene	25	21.6	86	80-121
74-97-5	Bromochloromethane	25	23.5	94	76-123
75-27-4	Bromodichloromethane	25	25.9	104	79-123
75-25-2	Bromoform	25	27.9	112	66-123
104-51-8	n-Butylbenzene	25	20.7	83	79-126
135-98-8	sec-Butylbenzene	25	24.4	98	83-133
98-06-6	tert-Butylbenzene	25	24.5	98	80-133
108-90-7	Chlorobenzene	25	26.6	106	82-124
75-00-3	Chloroethane	25	20.7	83	62-144
67-66-3	Chloroform	25	23.2	93	80-124
95-49-8	o-Chlorotoluene	25	23.7	95	81-127
106-43-4	p-Chlorotoluene	25	25.2	101	83-130
110-75-8	2-Chloroethyl vinyl ether	125	136	109	56-122
75-15-0	Carbon disulfide	25	24.2	97	66-148
56-23-5	Carbon tetrachloride	25	25.0	100	76-136
75-34-3	1,1-Dichloroethane	25	24.5	98	81-122
75-35-4	1,1-Dichloroethylene	25	28.2	113	78-137
563-58-6	1,1-Dichloropropene	25	28.2	113	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	22.7	91	64-123
106-93-4	1,2-Dibromoethane	25	25.4	102	75-120
107-06-2	1,2-Dichloroethane	25	24.1	96	75-125
78-87-5	1,2-Dichloropropane	25	25.2	101	76-124
142-28-9	1,3-Dichloropropane	25	24.9	100	80-118
594-20-7	2,2-Dichloropropane	25	26.2	105	74-139
124-48-1	Dibromochloromethane	25	24.1	96	78-122
75-71-8	Dichlorodifluoromethane	25	24.1	96	42-167
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	78-120
10061-01-5	cis-1,3-Dichloropropene	25	25.2	101	75-118
541-73-1	m-Dichlorobenzene	25	24.3	97	84-125
95-50-1	o-Dichlorobenzene	25	24.0	96	82-124
106-46-7	p-Dichlorobenzene	25	21.7	87	78-120
156-60-5	trans-1,2-Dichloroethylene	25	26.6	106	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	24.3	97	80-120
100-41-4	Ethylbenzene	25	25.1	100	81-121
591-78-6	2-Hexanone	125	153	122	61-129
87-68-3	Hexachlorobutadiene	25	23.8	95	75-142
98-82-8	Isopropylbenzene	25	27.2	109	83-132
99-87-6	p-Isopropyltoluene	25	23.2	93	79-130
108-10-1	4-Methyl-2-pentanone	125	141	113	66-122
74-83-9	Methyl bromide	25	22.6	90	59-143
74-87-3	Methyl chloride	25	23.9	96	50-159
74-95-3	Methylene bromide	25	25.1	100	78-119
75-09-2	Methylene chloride	25	27.5	110	69-135
78-93-3	Methyl ethyl ketone	125	146	117	56-143
1634-04-4	Methyl Tert Butyl Ether	25	24.1	96	72-117
91-20-3	Naphthalene	25	21.2	85	63-132
103-65-1	n-Propylbenzene	25	25.1	100	82-133
100-42-5	Styrene	25	23.8	95	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	24.9	100	77-122
71-55-6	1,1,1-Trichloroethane	25	25.0	100	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	22.3	89	72-120
79-00-5	1,1,2-Trichloroethane	25	24.8	99	76-119
87-61-6	1,2,3-Trichlorobenzene	25	21.8	87	68-131
96-18-4	1,2,3-Trichloropropane	25	22.9	92	77-120
120-82-1	1,2,4-Trichlorobenzene	25	19.7	79	73-129
95-63-6	1,2,4-Trimethylbenzene	25	21.8	87	79-120
108-67-8	1,3,5-Trimethylbenzene	25	23.2	93	79-120
127-18-4	Tetrachloroethylene	25	26.7	107	76-135
108-88-3	Toluene	25	24.5	98	80-120
79-01-6	Trichloroethylene	25	25.0	100	81-126
75-69-4	Trichlorofluoromethane	25	36.6	146	71-156
75-01-4	Vinyl chloride	25	23.8	95	69-159
108-05-4	Vinyl Acetate	125	148	118	43-154
	m,p-Xylene	50	55.5	111	79-126
95-47-6	o-Xylene	25	25.4	102	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	91%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA14987-1MS	Z25754.D	1	05/21/14	KW	n/a	n/a	VZ1006
FA14987-1MSD	Z25755.D	1	05/21/14	KW	n/a	n/a	VZ1006
FA14987-1	Z25735.D	1	05/21/14	KW	n/a	n/a	VZ1006

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	FA14987-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	10		50	51.4	83	50	52.9	86	3	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA14987-1	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	101%	101%	74-125%
2037-26-5	Toluene-D8	100%	100%	100%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	FA15149-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	88.9	71	125	89.7	72	1	50-147/21
107-02-8	Acrolein	ND		125	168	134	125	167	134	1	31-154/29
107-13-1	Acrylonitrile	ND		125	119	95	125	124	99	4	58-126/16
71-43-2	Benzene	ND		25	28.4	114	25	26.8	107	6	81-122/14
108-86-1	Bromobenzene	ND		25	24.4	98	25	24.3	97	0	80-121/14
74-97-5	Bromochloromethane	ND		25	27.9	112	25	27.8	111	0	76-123/14
75-27-4	Bromodichloromethane	ND		25	28.3	113	25	27.2	109	4	79-123/19
75-25-2	Bromoform	ND		25	29.8	119	25	28.3	113	5	66-123/21
104-51-8	n-Butylbenzene	ND		25	23.3	93	25	22.6	90	3	79-126/16
135-98-8	sec-Butylbenzene	ND		25	27.5	110	25	27.1	108	1	83-133/16
98-06-6	tert-Butylbenzene	ND		25	26.6	106	25	27.1	108	2	80-133/16
108-90-7	Chlorobenzene	ND		25	29.3	117	25	27.6	110	6	82-124/14
75-00-3	Chloroethane	ND		25	21.0	84	25	18.8	75	11	62-144/20
67-66-3	Chloroform	ND		25	27.7	111	25	25.9	104	7	80-124/15
95-49-8	o-Chlorotoluene	ND		25	25.4	102	25	25.7	103	1	81-127/15
106-43-4	p-Chlorotoluene	ND		25	27.4	110	25	28.1	112	3	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	3.8	3*	125	ND	0*	200*	56-122/23
75-15-0	Carbon disulfide	ND		25	23.6	94	25	18.3	73	25*	66-148/23
56-23-5	Carbon tetrachloride	ND		25	28.1	112	25	26.9	108	4	76-136/23
75-34-3	1,1-Dichloroethane	ND		25	28.4	114	25	26.0	104	9	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	30.8	123	25	28.9	116	6	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	32.0	128	25	29.9	120	7	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	24.2	97	25	25.2	101	4	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	27.5	110	25	26.7	107	3	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	27.7	111	25	26.7	107	4	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	28.4	114	25	27.3	109	4	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	27.1	108	25	26.5	106	2	80-118/13
594-20-7	2,2-Dichloropropane	ND		25	31.0	124	25	28.5	114	8	74-139/17
124-48-1	Dibromochloromethane	ND		25	25.6	102	25	25.2	101	2	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	22.4	90	25	23.2	93	4	42-167/19
156-59-2	cis-1,2-Dichloroethylene	ND		25	28.6	114	25	29.6	118	3	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.6	102	25	23.3	93	9	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	26.4	106	25	26.8	107	2	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	26.7	107	25	27.5	110	3	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	23.5	94	25	23.7	95	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	29.3	117	25	27.5	110	6	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Compound	FA15149-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	26.5	106	25	25.6	102	3	80-120/22
100-41-4	Ethylbenzene	ND		25	27.3	109	25	25.6	102	6	81-121/14
591-78-6	2-Hexanone	ND		125	110	88	125	109	87	1	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	24.7	99	25	25.5	102	3	75-142/19
98-82-8	Isopropylbenzene	ND		25	29.5	118	25	27.6	110	7	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	25.4	102	25	25.4	102	0	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	144	115	125	144	115	0	66-122/16
74-83-9	Methyl bromide	ND		25	20.7	83	25	20.3	81	2	59-143/19
74-87-3	Methyl chloride	ND		25	23.1	92	25	23.1	92	0	50-159/19
74-95-3	Methylene bromide	ND		25	27.8	111	25	28.3	113	2	78-119/14
75-09-2	Methylene chloride	ND		25	31.4	126	25	30.0	120	5	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	108	86	125	112	90	4	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	26.5	106	25	26.7	107	1	72-117/14
91-20-3	Naphthalene	ND		25	20.3	81	25	22.4	90	10	63-132/25
103-65-1	n-Propylbenzene	ND		25	27.4	110	25	27.3	109	0	82-133/15
100-42-5	Styrene	ND		25	26.2	105	25	25.1	100	4	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	27.0	108	25	25.8	103	5	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	27.9	112	25	26.5	106	5	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.2	97	25	26.0	104	7	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	27.3	109	25	26.9	108	1	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	22.2	89	25	23.3	93	5	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	23.9	96	25	25.7	103	7	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	20.1	80	25	22.1	88	9	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	23.6	94	25	23.8	95	1	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	25.2	101	25	24.8	99	2	79-120/19
127-18-4	Tetrachloroethylene	ND		25	29.0	116	25	27.3	109	6	76-135/16
108-88-3	Toluene	ND		25	26.5	106	25	25.1	100	5	80-120/14
79-01-6	Trichloroethylene	ND		25	28.1	112	25	26.5	106	6	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	37.7	151	25	35.7	143	5	71-156/21
75-01-4	Vinyl chloride	ND		25	22.9	92	25	22.7	91	1	69-159/18
108-05-4	Vinyl Acetate	ND		125	158	126	125	155	124	2	43-154/14
	m,p-Xylene	ND		50	60.7	121	50	54.7	109	10	79-126/15
95-47-6	o-Xylene	ND		25	27.8	111	25	26.2	105	6	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15149
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15149-1, FA15149-2, FA15149-3, FA15149-4, FA15149-5, FA15149-6, FA15149-7, FA15149-8, FA15149-9, FA15149-10, FA15149-11, FA15149-12

CAS No.	Surrogate Recoveries	MS	MSD	FA15149-1	Limits
1868-53-7	Dibromofluoromethane	101%	102%	105%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	106%	107%	79-125%
2037-26-5	Toluene-D8	94%	93%	102%	85-112%
460-00-4	4-Bromofluorobenzene	87%	93%	95%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	2	2.3	1.9	<6.0
Arsenic	10	2	2.4		
Barium	200	1	1		
Beryllium	4.0	.5	.5	0.0	<4.0
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1	2		
Cobalt	50	.5	.5		
Copper	25	1	1	0.30	<25
Iron	300	17	17	2.6	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	50	56		
Manganese	15	.5	1	0.0	<15
Molybdenum	50	.5	.5		
Nickel	40	.5	.5	-0.10	<40
Potassium	10000	200	200		
Selenium	10	2.3	2.3		
Silver	10	.65	.77		
Sodium	10000	500	500		
Strontium	10	.4	.4		
Thallium	10	1.5	2	-1.0	<10
Tin	50	.7	1		
Titanium	10	.9	1		
Vanadium	50	.5	.5		
Zinc	20	3	3	3.2	<20

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			05/28/14					05/28/14	
Metal	FA15195-1 Original	DUP	RPD	QC Limits	FA15195-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0	NC	0-20	0.0	529	500	105.8	80-120
Arsenic	anr								
Barium									
Beryllium	0.0	0.0	NC	0-20	0.0	55.3	50	110.6	80-120
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	1.2	1.3	8.0	0-20	1.2	287	250	114.3	80-120
Iron	5910	5760	2.6	0-20	5910	34400	26000	109.6	80-120
Lead	anr								
Magnesium									
Manganese	554	552	0.4	0-20	554	1110	500	111.2	80-120
Molybdenum									
Nickel	5.6	5.5	1.8	0-20	5.6	550	500	108.9	80-120
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	2100	2000	105.0	80-120
Tin									
Titanium									
Vanadium									
Zinc	16.5	19.3	15.6	0-20	16.5	529	500	102.5	80-120

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	526	500	105.2	0.6	20
Arsenic	anr					
Barium						
Beryllium	0.0	54.8	50	109.6	0.9	20
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	1.2	280	250	111.5	2.5	20
Iron	5910	33900	26000	107.7	1.5	20
Lead	anr					
Magnesium						
Manganese	554	1100	500	109.2	0.9	20
Molybdenum						
Nickel	5.6	547	500	108.3	0.5	20
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	0.0	2080	2000	104.0	1.0	20
Tin						
Titanium						
Vanadium						
Zinc	16.5	526	500	101.9	0.6	20

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	529	500	105.8	80-120
Arsenic	anr			
Barium				
Beryllium	54.9	50	109.8	80-120
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	283	250	113.2	80-120
Iron	28300	26000	108.8	80-120
Lead	anr			
Magnesium				
Manganese	557	500	111.4	80-120
Molybdenum				
Nickel	546	500	109.2	80-120
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	2070	2000	103.5	80-120
Tin				
Titanium				
Vanadium				
Zinc	517	500	103.4	80-120

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	anr			
Barium				
Beryllium	0.00	0.00	NC	0-10
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	1.20	0.00	100.0(a)	0-10
Iron	5910	5600	5.3	0-10
Lead	anr			
Magnesium				
Manganese	554	528	4.6	0-10
Molybdenum				
Nickel	5.60	5.00	10.7 (a)	0-10
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium				
Zinc	16.5	16.0	3.0	0-10

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	Sample ml	Final ml	FA15195-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			108	0.2	5	100	108.0	80-120
Arsenic										
Barium										
Beryllium	9.8	10			55.8	0.2	2.5	50	111.6	80-120
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper	9.8	10	1.2	1.176	115.7	0.2	5	100	114.5	80-120
Iron	9.8	10	5910	5791.8	8987	0.2	150	3000	106.5	80-120
Lead										
Magnesium										
Manganese	9.8	10	553.6	542.528	592.8	0.2	2.5	50	100.5	80-120
Molybdenum										
Nickel	9.8	10	5.6	5.488	118.7	0.2	5	100	113.2	80-120
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium	9.8	10			106.1	0.2	5	100	106.1	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	16.5	16.17	295.3	0.2	12.5	250	111.7	80-120

Associated samples MP27307: FA15149-1, FA15149-4, FA15149-5, FA15149-6, FA15149-8, FA15149-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate	GP24044/GN61556	0.10	0.0	mg/l	2.5	2.36	94.4	90-110%
Nitrogen, Nitrite	GP24044/GN61556	0.10	0.0	mg/l	2.5	2.54	101.6	90-110%
Sulfate	GP24044/GN61556	2.0	0.0	mg/l	50	49.2	98.4	90-110%
Sulfite	GN61564	3.0	0.0	mg/l	34.5	34.0	98.6	80-120%
Total Organic Carbon	GP24043/GN61535	1.0	0.0	mg/l	15	16.1	107.3	90-110%

Associated Samples:
Batch GN61564: FA15149-1, FA15149-4, FA15149-5, FA15149-8
Batch GP24043: FA15149-1, FA15149-4, FA15149-5, FA15149-8
Batch GP24044: FA15149-1, FA15149-4, FA15149-5, FA15149-8
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Total Organic Carbon	GP24043/GN61535	FA15149-1	mg/l	0.23 B	0.0	200.0(a)	0-20%

Associated Samples:
Batch GP24043: FA15149-1, FA15149-4, FA15149-5, FA15149-8
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate	GP24044/GN61556	FA15149-1	mg/l	0.34	2.5	2.7	94.4	90-110%
Nitrogen, Nitrate	GP24044/GN61556	FA15149-4	mg/l	0.11	2.5	2.5	95.6	90-110%
Nitrogen, Nitrite	GP24044/GN61556	FA15149-1	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Nitrogen, Nitrite	GP24044/GN61556	FA15149-4	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Sulfate	GP24044/GN61556	FA15149-1	mg/l	1.0 B	50	53.7	105.4	90-110%
Sulfate	GP24044/GN61556	FA15149-4	mg/l	1.1 B	50	51.9	101.6	90-110%
Sulfite	GN61564	FA15149-1	mg/l	1.5 U	34.5	36.0	101.0	75-125%
Total Organic Carbon	GP24043/GN61535	FA15149-1	mg/l	0.23 B	15	17.8	117.1N(a)	90-110%

Associated Samples:
Batch GN61564: FA15149-1, FA15149-4, FA15149-5, FA15149-8
Batch GP24043: FA15149-1, FA15149-4, FA15149-5, FA15149-8
Batch GP24044: FA15149-1, FA15149-4, FA15149-5, FA15149-8
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15149
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrate	GP24044/GN61556	FA15149-1	mg/l	0.34	2.5	2.7	0.0	20%
Nitrogen, Nitrate	GP24044/GN61556	FA15149-4	mg/l	0.11	2.5	2.4	4.1	20%
Nitrogen, Nitrite	GP24044/GN61556	FA15149-1	mg/l	0.050 U	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP24044/GN61556	FA15149-4	mg/l	0.050 U	2.5	2.5	0.0	20%
Sulfate	GP24044/GN61556	FA15149-1	mg/l	1.0 B	50	54.1	0.7	20%
Sulfate	GP24044/GN61556	FA15149-4	mg/l	1.1 B	50	51.7	0.4	20%
Sulfite	GN61564	FA15149-1	mg/l	1.5 U	34.5mg/l	35.0	2.8	

Associated Samples:
Batch GN61564: FA15149-1, FA15149-4, FA15149-5, FA15149-8
Batch GP24044: FA15149-1, FA15149-4, FA15149-5, FA15149-8
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA15195

Sampling Date: 05/21/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **93**

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Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

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Accutest LabLink@153230 12:00 12-Aug-2014

Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA15195

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA15195-1	05/21/14	09:30	RMTF	05/22/14	AQ	Ground Water	MW-16
FA15195-2	05/21/14	11:00	RMTF	05/22/14	AQ	Ground Water	DW-3
FA15195-3	05/21/14	13:05	RMTF	05/22/14	AQ	Ground Water	DW-4
FA15195-4	05/21/14	12:45	RMTF	05/22/14	AQ	Ground Water	DW-1
FA15195-5	05/21/14	11:40	RMTF	05/22/14	AQ	Ground Water	DW-5
FA15195-6	05/21/14	17:55	RMTF	05/22/14	AQ	Ground Water	MW-8
FA15195-7	05/21/14	16:45	RMTF	05/22/14	AQ	Ground Water	MW-9
FA15195-8	05/21/14	10:25	RMTF	05/22/14	AQ	Ground Water	MW-14
FA15195-9	05/21/14	09:40	RMTF	05/22/14	AQ	Ground Water	MW-15
FA15195-10	05/21/14	16:30	RMTF	05/22/14	AQ	Ground Water	MW-11
FA15195-11	05/21/14	00:00	RMTF	05/22/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: FA15195
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/21/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15195-1	**MW-16**					
Iron		5910	300	17	ug/l	SW846 6010C
Manganese		554	15	1.0	ug/l	SW846 6010C
Total Organic Carbon		0.49 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15195-2	**DW-3**					
Iron		374	300	17	ug/l	SW846 6010C
Manganese		26.1	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.79	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		25.8	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		1.4	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15195-3	**DW-4**					
Iron		3260	300	17	ug/l	SW846 6010C
Manganese		221	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.56	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		51.8	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		2.0	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15195-4	**DW-1**					
Chloroform		0.33 J	1.0	0.31	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		16.4	1.0	0.33	ug/l	SW846 8260B
Tetrachloroethylene		1.7	1.0	0.26	ug/l	SW846 8260B
Toluene		0.23 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		85.3	1.0	0.30	ug/l	SW846 8260B
Total TIC, Volatile		36 J			ug/l	
Iron		356	300	17	ug/l	SW846 6010C
Manganese		45.4	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.15	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		8.0	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.40 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15195-5	**DW-5**					
Chloroform		1.8	1.0	0.31	ug/l	SW846 8260B
Iron		2800	300	17	ug/l	SW846 6010C
Manganese		61.5	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.25	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		31.7	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.71 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A

Summary of Hits

Job Number: FA15195
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/21/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15195-6	**MW-8**					
Chloroform		0.35 J	1.0	0.31	ug/l	SW846 8260B
Carbon disulfide		0.50 J	2.0	0.20	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		0.49 J	1.0	0.33	ug/l	SW846 8260B
Tetrachloroethylene		0.73 J	1.0	0.26	ug/l	SW846 8260B
Trichloroethylene		92.3	2.0	0.60	ug/l	SW846 8260B
Iron		468	300	17	ug/l	SW846 6010C
Manganese		138	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		1.4	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		0.97 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
FA15195-7	**MW-9**					
Chloroform		1.2 J	2.0	0.62	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		14.7	2.0	0.65	ug/l	SW846 8260B
Tetrachloroethylene		39.7	2.0	0.51	ug/l	SW846 8260B
Trichloroethylene		1950	25	7.6	ug/l	SW846 8260B
m,p-Xylene		0.97 J	4.0	0.96	ug/l	SW846 8260B
1,4-Dioxane		0.52 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Total TIC, Volatile		88 J			ug/l	
Iron		10300	300	17	ug/l	SW846 6010C
Manganese		203	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.34	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		0.86 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.24 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15195-8	**MW-14**					
No hits reported in this sample.						
FA15195-9	**MW-15**					
Total TIC, Volatile		75 J			ug/l	
FA15195-10	**MW-11**					
No hits reported in this sample.						
FA15195-11	**TRIP BLANK**					
Total TIC, Volatile		87 J			ug/l	

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26107.D	1	06/02/14	KW	n/a	n/a	VZ1018
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	107%		74-125%
2037-26-5	Toluene-D8	89%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076793.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	93%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	9100	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	5910	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	554	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	FA15195-1	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	05/22/14 15:18	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 15:18	CH	EPA 300/SW846 9056A
Sulfate	0.60 U	2.0	0.60	mg/l	1	05/22/14 15:18	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.49 B	1.0	0.23	mg/l	1	05/24/14 18:39	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26085.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	112%		74-125%
2037-26-5	Toluene-D8	91%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076794.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	12000	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	374	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	26.1	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15195-2	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.79	0.10	0.050	mg/l	1	05/22/14 16:09	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 16:09	CH	EPA 300/SW846 9056A
Sulfate	25.8	2.0	0.60	mg/l	1	05/22/14 16:09	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	1.4	1.0	0.23	mg/l	1	05/24/14 19:24	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15195-3	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3260	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	221	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15195-3	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.56	0.10	0.050	mg/l	1	05/22/14 16:26	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 16:26	CH	EPA 300/SW846 9056A
Sulfate	51.8	2.0	0.60	mg/l	1	05/22/14 16:26	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	2.0	1.0	0.23	mg/l	1	05/24/14 19:39	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26087.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	111%		74-125%
2037-26-5	Toluene-D8	91%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076796.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.33	1.0	0.31	ug/l	J
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	16.4	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	1.7	1.0	0.26	ug/l	
108-88-3	Toluene	0.23	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	85.3	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	8800	ug/l	JNB
115-11-7	1-Propene, 2-methyl-	2.88	36	ug/l	JN
	Total TIC, Volatile		36	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	356	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	45.4	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-1		
Lab Sample ID:	FA15195-4	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.15	0.10	0.050	mg/l	1	05/22/14 16:43	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 16:43	CH	EPA 300/SW846 9056A
Sulfate	8.0	2.0	0.60	mg/l	1	05/22/14 16:43	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.40 B	1.0	0.23	mg/l	1	05/24/14 19:54	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26088.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	112%		74-125%
2037-26-5	Toluene-D8	90%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076797.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	1.8	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	8300	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2800	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	61.5	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DW-5		
Lab Sample ID:	FA15195-5	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.25	0.10	0.050	mg/l	1	05/22/14 17:00	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 17:00	CH	EPA 300/SW846 9056A
Sulfate	31.7	2.0	0.60	mg/l	1	05/22/14 17:00	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.71 B	1.0	0.23	mg/l	1	05/24/14 20:40	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26089.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	110%		74-125%
2037-26-5	Toluene-D8	92%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076807.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2	N0076798.D	2	05/30/14	RB	n/a	n/a	VN3362

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	0.35	1.0	0.31	ug/l	J
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.50	2.0	0.20	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.49	1.0	0.33	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.73	1.0	0.26	ug/l	J
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	92.3 [b]	2.0	0.60	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	109%	79-125%
2037-26-5	Toluene-D8	98%	97%	85-112%
460-00-4	4-Bromofluorobenzene	101%	101%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	11000	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	468	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	138	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	FA15195-6	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	1.4	0.10	0.050	mg/l	1	05/22/14 13:20	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 13:20	CH	EPA 300/SW846 9056A
Sulfate	0.97 B	2.0	0.60	mg/l	1	05/22/14 13:20	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.23 U	1.0	0.23	mg/l	1	05/24/14 20:54	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26090.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.52	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	111%		74-125%
2037-26-5	Toluene-D8	89%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076799.D	2	05/30/14	RB	n/a	n/a	VN3362
Run #2	N0076808.D	25	05/30/14	RB	n/a	n/a	VN3362

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	50	21	ug/l	
107-02-8	Acrolein	ND	40	13	ug/l	
107-13-1	Acrylonitrile	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	2.0	0.49	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.63	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.75	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.52	ug/l	
75-25-2	Bromoform	ND	2.0	0.77	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.60	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.57	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.48	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	1.2	2.0	0.62	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.45	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.58	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.0	ug/l	
75-15-0	Carbon disulfide	ND	4.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.79	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.51	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.51	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.48	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.71	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.68	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.66	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.72	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	0.66	ug/l	
156-59-2	cis-1,2-Dichloroethylene	14.7	2.0	0.65	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.42	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.59	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.40	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.69	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.42	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.48	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.1	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.1	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.58	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.40	ug/l	
91-20-3	Naphthalene	ND	10	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.48	ug/l	
100-42-5	Styrene	ND	2.0	0.47	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.67	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.55	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.63	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.49	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	4.0	0.40	ug/l	
127-18-4	Tetrachloroethylene	39.7	2.0	0.51	ug/l	
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	1950 [b]	25	7.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.65	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	0.97	4.0	0.96	ug/l	J
95-47-6	o-Xylene	ND	2.0	0.40	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	111%	79-125%
2037-26-5	Toluene-D8	98%	99%	85-112%
460-00-4	4-Bromofluorobenzene	103%	101%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	14000	ug/l	JNB
625-31-0	4-Penten-2-ol	4.80	88	ug/l	JN
	Total TIC, Volatile		88	ug/l	J

(a) Associated BS recovery outside control limits.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	10300	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	203	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	FA15195-7	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.34	0.10	0.050	mg/l	1	05/22/14 13:03	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/22/14 13:03	CH	EPA 300/SW846 9056A
Sulfate	0.86 B	2.0	0.60	mg/l	1	05/22/14 13:03	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.24 B	1.0	0.23	mg/l	1	05/24/14 21:09	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	FA15195-8	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26091.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	111%		74-125%
2037-26-5	Toluene-D8	91%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	FA15195-8	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076800.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	FA15195-8	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14		
Lab Sample ID:	FA15195-8	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	7800	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	FA15195-9	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26092.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	111%		74-125%
2037-26-5	Toluene-D8	92%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	FA15195-9	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076802.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	FA15195-9	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	FA15195-9	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.39	7300	ug/l	JNB
75-04-7	Ethylamine	4.79	75	ug/l	JN
	Total TIC, Volatile		75	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA15195-10	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26093.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	111%		74-125%
2037-26-5	Toluene-D8	91%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA15195-10	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076803.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA15195-10	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	FA15195-10	**Date Sampled:**	05/21/14
Matrix:	AQ - Ground Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.40	11000	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15195-11	**Date Sampled:**	05/21/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/22/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Z26077.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	114%		74-125%
2037-26-5	Toluene-D8	90%		88-111%

(a) Sample vial(s) contained significant headspace; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15195-11	**Date Sampled:**	05/21/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076804.D	1	05/30/14	RB	n/a	n/a	VN3362
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15195-11	**Date Sampled:**	05/21/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15195-11	**Date Sampled:**	05/21/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/22/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	110%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.39	1500	ug/l	JNB
75-04-7	Ethylamine	4.78	87	ug/l	JN
	Total TIC, Volatile		87	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA15195

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM NC INC
Address: 15720 John Delaney Dr.
City: Charlotte State: NC Zip: 28277
Project Contact: Lane Damon E-mail: Lane.Damon@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): Ryan Mayette Tomas Fisher

Project Information

Project Name: ECI - ELON
Street: 100 Regis Dr.
City: Elon State: NC
Project #
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	VOC 8260	1,4 D	MNA**	HSL**									LAB USE ONLY
1	MW-16	5/21/14	0930	RM	GW	10		X	X		X					X	X	X										
2	DW-3	5/21/14	1100	RM	GW	10		X	X		X					X	X	X										
3	DW-4	5/21/14	1305	RM	GW	10		X	X		X					X	X	X										
4	DW-1	5/21/14	1245	TF	GW	10		X	X		X					X	X	X										
5	DW-5	5/21/14	1140	TF	GW	10		X	X		X					X	X	X										
6	MW-8	5/20/14	1755	TF	GW	10		X	X		X					X	X	X										
7	MW-9	5/20/14	1645	TF	GW	10		X	X		X					X	X	X										
8	MW-14	5/21/14	1025	TF	GW	6			X							X	X											
9	MW-15	5/21/14	0940	TF	GW	6			X							X	X											
10	MW-11	5/20/14	1630	RM	GW	6			X							X	X											
11	Trip Blank	5/20/14	—	—	LIQ	2			X							X	X											

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

RALEIGH, NC

SVC CENTER

Comments / Remarks

*MNA - Nitrate/Nitrite, Sulfate/Sulfite, Iron MN, and total organic carbon

**HSL - antimony, beryllium, Cu, MN, Ni Th, Zn

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Ryan Mayette/ERM NC Inc.	5/21/14 1345	2 [signature]	3 [signature]	5/21/14 1740	4 FX
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5 RM 05-22-14	1000	6 [signature]	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 1.8 2.2

FA15195: Chain of Custody
Page 1 of 4

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA15195 CLIENT: ERM PROJECT: GCI ELON

DATE/TIME RECEIVED: 05-22-14 1000 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7700 5844 0500 / 0521

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 1.4 1.8
- [ ] CORRECTED TEMPS: 1.8 2.2

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [X] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: Sample # 3 All 3 8260 vial Have Macro Bubbles

TECHNICIAN SIGNATURE/DATE 05-22-14 REVIEWER SIGNATURE/DATE 05/22/14

RS 04/14 receipt confirmation 041514.xls

4.1

4

FA15195: Chain of Custody

Page 2 of 2

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J14101402070326

Ship Date: 21MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

BILL SENDER

2 of 3

THU - 22 MAY AA
STANDARD OVERNIGHT

MPS# 7700 5844 0521
0263
Mstr# 7700 5844 0500
0201

XH TIXA

32811
FL-US
MCO

522G1/52D3/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

/templates/components/dotcom_label_contents/WarningsOriginalLabel/en/Folding_warning.html loading...
/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading...

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J14101402070326

Ship Date: 21MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

BILL SENDER

3 of 3

MPS# 7700 5844 0359
0263

Mstr# 7700 5844 0500

0201

THU - 22 MAY AA
STANDARD OVERNIGHT

XH TIXA

32811
FL-US
MCO

522G1/62D3/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

/templates/components/dotcom_label_contents/WarningsOriginalLabel/en/Folding_w arning.html loading...
/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading...

4.1 4

FA15195: Chain of Custody
Page 4 of 4

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-MB	Z26076.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	115%	74-125%
2037-26-5	Toluene-D8	91%	88-111%

Method Blank Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1018-MB	Z26105.D	1	06/02/14	KW	n/a	n/a	VZ1018

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-1

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	108%	74-125%
2037-26-5	Toluene-D8	92%	88-111%

Method Blank Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-MB	N0076790.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-MB	N0076790.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-MB	N0076790.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	102%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.39	340	ug/l	JN
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-BS	Z26075.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	47.0	94	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	114%	74-125%
2037-26-5	Toluene-D8	92%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1018-BS	Z26104.D	1	06/02/14	KW	n/a	n/a	VZ1018

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	46.9	94	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	106%	74-125%
2037-26-5	Toluene-D8	92%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-BS	N0076788.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	210	168*	50-147
107-02-8	Acrolein	125	58.7	47	31-154
107-13-1	Acrylonitrile	125	129	103	58-126
71-43-2	Benzene	25	25.0	100	81-122
108-86-1	Bromobenzene	25	24.5	98	80-121
74-97-5	Bromochloromethane	25	24.6	98	76-123
75-27-4	Bromodichloromethane	25	24.9	100	79-123
75-25-2	Bromoform	25	23.3	93	66-123
104-51-8	n-Butylbenzene	25	26.5	106	79-126
135-98-8	sec-Butylbenzene	25	26.6	106	83-133
98-06-6	tert-Butylbenzene	25	27.3	109	80-133
108-90-7	Chlorobenzene	25	26.8	107	82-124
75-00-3	Chloroethane	25	24.0	96	62-144
67-66-3	Chloroform	25	25.3	101	80-124
95-49-8	o-Chlorotoluene	25	26.4	106	81-127
106-43-4	p-Chlorotoluene	25	26.8	107	83-130
110-75-8	2-Chloroethyl vinyl ether	125	124	99	56-122
75-15-0	Carbon disulfide	25	24.7	99	66-148
56-23-5	Carbon tetrachloride	25	27.3	109	76-136
75-34-3	1,1-Dichloroethane	25	25.7	103	81-122
75-35-4	1,1-Dichloroethylene	25	28.3	113	78-137
563-58-6	1,1-Dichloropropene	25	27.1	108	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	24.6	98	64-123
106-93-4	1,2-Dibromoethane	25	24.1	96	75-120
107-06-2	1,2-Dichloroethane	25	24.9	100	75-125
78-87-5	1,2-Dichloropropane	25	24.5	98	76-124
142-28-9	1,3-Dichloropropane	25	23.9	96	80-118
594-20-7	2,2-Dichloropropane	25	28.8	115	74-139
124-48-1	Dibromochloromethane	25	24.0	96	78-122
75-71-8	Dichlorodifluoromethane	25	25.9	104	42-167
156-59-2	cis-1,2-Dichloroethylene	25	25.2	101	78-120
10061-01-5	cis-1,3-Dichloropropene	25	24.9	100	75-118
541-73-1	m-Dichlorobenzene	25	26.5	106	84-125
95-50-1	o-Dichlorobenzene	25	26.5	106	82-124
106-46-7	p-Dichlorobenzene	25	24.1	96	78-120
156-60-5	trans-1,2-Dichloroethylene	25	26.3	105	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-BS	N0076788.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	26.9	108	80-120
100-41-4	Ethylbenzene	25	25.3	101	81-121
591-78-6	2-Hexanone	125	160	128	61-129
87-68-3	Hexachlorobutadiene	25	26.4	106	75-142
98-82-8	Isopropylbenzene	25	28.8	115	83-132
99-87-6	p-Isopropyltoluene	25	26.3	105	79-130
108-10-1	4-Methyl-2-pentanone	125	116	93	66-122
74-83-9	Methyl bromide	25	25.2	101	59-143
74-87-3	Methyl chloride	25	26.8	107	50-159
74-95-3	Methylene bromide	25	24.3	97	78-119
75-09-2	Methylene chloride	25	24.1	96	69-135
78-93-3	Methyl ethyl ketone	125	145	116	56-143
1634-04-4	Methyl Tert Butyl Ether	25	23.7	95	72-117
91-20-3	Naphthalene	25	22.3	89	63-132
103-65-1	n-Propylbenzene	25	26.2	105	82-133
100-42-5	Styrene	25	26.0	104	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	25.1	100	77-122
71-55-6	1,1,1-Trichloroethane	25	27.5	110	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	24.1	96	72-120
79-00-5	1,1,2-Trichloroethane	25	24.0	96	76-119
87-61-6	1,2,3-Trichlorobenzene	25	25.4	102	68-131
96-18-4	1,2,3-Trichloropropane	25	24.3	97	77-120
120-82-1	1,2,4-Trichlorobenzene	25	26.1	104	73-129
95-63-6	1,2,4-Trimethylbenzene	25	23.9	96	79-120
108-67-8	1,3,5-Trimethylbenzene	25	25.2	101	79-120
127-18-4	Tetrachloroethylene	25	25.9	104	76-135
108-88-3	Toluene	25	24.8	99	80-120
79-01-6	Trichloroethylene	25	24.4	98	81-126
75-69-4	Trichlorofluoromethane	25	27.9	112	71-156
75-01-4	Vinyl chloride	25	25.4	102	69-159
108-05-4	Vinyl Acetate	125	148	118	43-154
	m,p-Xylene	50	50.5	101	79-126
95-47-6	o-Xylene	25	25.6	102	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3362-BS	N0076788.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-2MS	Z26098.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2MSD	Z26099.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2	Z26085.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	FA15195-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		50	46.8	94	50	48.1	96	3	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA15195-2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%	108%	112%	74-125%
2037-26-5	Toluene-D8	91%	91%	91%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15234-2MS	Z26109.D	1	06/02/14	KW	n/a	n/a	VZ1018
FA15234-2MSD	Z26110.D	1	06/02/14	KW	n/a	n/a	VZ1018
FA15234-2	Z26108.D	1	06/02/14	KW	n/a	n/a	VZ1018

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15195-1

CAS No.	Compound	FA15234-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	22.0		50	70.8	98	50	72.2	100	2	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA15234-2	Limits
17060-07-0	1,2-Dichloroethane-D4	107%	107%	106%	74-125%
2037-26-5	Toluene-D8	92%	91%	91%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-1MS	N0076809.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1MSD	N0076810.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1	N0076793.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	FA15195-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	93.9	75	125	91.1	73	3	50-147/21
107-02-8	Acrolein	ND		125	54.8	44	125	54.6	44	0	31-154/29
107-13-1	Acrylonitrile	ND		125	125	100	125	122	98	2	58-126/16
71-43-2	Benzene	ND		25	26.3	105	25	24.6	98	7	81-122/14
108-86-1	Bromobenzene	ND		25	25.8	103	25	24.2	97	6	80-121/14
74-97-5	Bromochloromethane	ND		25	26.3	105	25	24.7	99	6	76-123/14
75-27-4	Bromodichloromethane	ND		25	27.0	108	25	24.4	98	10	79-123/19
75-25-2	Bromoform	ND		25	19.1	76	25	18.5	74	3	66-123/21
104-51-8	n-Butylbenzene	ND		25	27.3	109	25	25.5	102	7	79-126/16
135-98-8	sec-Butylbenzene	ND		25	27.6	110	25	25.6	102	8	83-133/16
98-06-6	tert-Butylbenzene	ND		25	28.8	115	25	26.7	107	8	80-133/16
108-90-7	Chlorobenzene	ND		25	28.0	112	25	25.9	104	8	82-124/14
75-00-3	Chloroethane	ND		25	19.0	76	25	18.6	74	2	62-144/20
67-66-3	Chloroform	ND		25	27.9	112	25	25.8	103	8	80-124/15
95-49-8	o-Chlorotoluene	ND		25	27.6	110	25	25.7	103	7	81-127/15
106-43-4	p-Chlorotoluene	ND		25	28.0	112	25	25.7	103	9	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	ND	0*	125	ND	0*	nc	56-122/23
75-15-0	Carbon disulfide	ND		25	24.6	98	25	21.8	87	12	66-148/23
56-23-5	Carbon tetrachloride	ND		25	31.5	126	25	27.4	110	14	76-136/23
75-34-3	1,1-Dichloroethane	ND		25	26.9	108	25	24.6	98	9	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	30.3	121	25	27.3	109	10	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	29.2	117	25	26.9	108	8	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	25.1	100	25	26.3	105	5	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	25.0	100	25	24.1	96	4	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	28.5	114	25	27.7	111	3	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	25.9	104	25	23.4	94	10	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	24.9	100	25	24.1	96	3	80-118/13
594-20-7	2,2-Dichloropropane	ND		25	31.6	126	25	28.9	116	9	74-139/17
124-48-1	Dibromochloromethane	ND		25	21.9	88	25	21.1	84	4	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	23.6	94	25	21.3	85	10	42-167/19
156-59-2	cis-1,2-Dichloroethylene	ND		25	26.3	105	25	24.4	98	7	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.1	100	25	22.3	89	12	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	27.6	110	25	26.0	104	6	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	28.1	112	25	26.3	105	7	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	25.6	102	25	23.7	95	8	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.6	110	25	24.8	99	11	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-1MS	N0076809.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1MSD	N0076810.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1	N0076793.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Compound	FA15195-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	27.8	111	25	25.9	104	7	80-120/22
100-41-4	Ethylbenzene	ND		25	26.2	105	25	24.3	97	8	81-121/14
591-78-6	2-Hexanone	ND		125	117	94	125	115	92	2	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	27.5	110	25	25.8	103	6	75-142/19
98-82-8	Isopropylbenzene	ND		25	29.6	118	25	27.4	110	8	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	26.6	106	25	24.7	99	7	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	117	94	125	119	95	2	66-122/16
74-83-9	Methyl bromide	ND		25	21.6	86	25	19.6	78	10	59-143/19
74-87-3	Methyl chloride	ND		25	20.6	82	25	19.4	78	6	50-159/19
74-95-3	Methylene bromide	ND		25	26.7	107	25	26.0	104	3	78-119/14
75-09-2	Methylene chloride	ND		25	26.1	104	25	24.4	98	7	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	99.7	80	125	98.5	79	1	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	24.6	98	25	23.8	95	3	72-117/14
91-20-3	Naphthalene	ND		25	21.8	87	25	22.4	90	3	63-132/25
103-65-1	n-Propylbenzene	ND		25	27.3	109	25	25.1	100	8	82-133/15
100-42-5	Styrene	ND		25	23.5	94	25	21.7	87	8	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	26.3	105	25	25.4	102	3	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	31.0	124	25	27.6	110	12	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	25.0	100	25	24.4	98	2	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	24.7	99	25	23.9	96	3	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	25.9	104	25	25.8	103	0	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	26.8	107	25	26.1	104	3	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	26.2	105	25	25.8	103	2	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	23.6	94	25	21.8	87	8	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	24.5	98	25	22.8	91	7	79-120/19
127-18-4	Tetrachloroethylene	ND		25	27.5	110	25	25.2	101	9	76-135/16
108-88-3	Toluene	ND		25	25.0	100	25	23.6	94	6	80-120/14
79-01-6	Trichloroethylene	ND		25	26.8	107	25	24.7	99	8	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	27.4	110	25	24.1	96	13	71-156/21
75-01-4	Vinyl chloride	ND		25	20.9	84	25	19.2	77	8	69-159/18
108-05-4	Vinyl Acetate	ND		125	170	136	125	165	132	3	43-154/14
	m,p-Xylene	ND		50	52.5	105	50	48.3	97	8	79-126/15
95-47-6	o-Xylene	ND		25	25.6	102	25	24.2	97	6	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15195
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-1MS	N0076809.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1MSD	N0076810.D	1	05/30/14	RB	n/a	n/a	VN3362
FA15195-1	N0076793.D	1	05/30/14	RB	n/a	n/a	VN3362

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15195-1, FA15195-2, FA15195-4, FA15195-5, FA15195-6, FA15195-7, FA15195-8, FA15195-9, FA15195-10, FA15195-11

CAS No.	Surrogate Recoveries	MS	MSD	FA15195-1	Limits
1868-53-7	Dibromofluoromethane	103%	103%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	112%	111%	104%	79-125%
2037-26-5	Toluene-D8	96%	98%	93%	85-112%
460-00-4	4-Bromofluorobenzene	96%	96%	99%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	2	2.3		
Arsenic	10	2	2.4		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	17	17	2.6	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	50	56		
Manganese	15	.5	1	0.0	<15
Molybdenum	50	.5	.5		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2.3	2.3		
Silver	10	.65	.77		
Sodium	10000	500	500		
Strontium	10	.4	.4		
Thallium	10	1.5	2		
Tin	50	.7	1		
Titanium	10	.9	1		
Vanadium	50	.5	.5		
Zinc	20	3	3		

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	05/28/14						05/28/14		
Metal	FA15195-1 Original	DUP	RPD	QC Limits	FA15195-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5910	5760	2.6	0-20	5910	34400	26000	109.6	80-120
Lead	anr								
Magnesium									
Manganese	554	552	0.4	0-20	554	1110	500	111.2	80-120
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium						
Beryllium	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	5910	33900	26000	107.7	1.5	20
Lead	anr					
Magnesium						
Manganese	554	1100	500	109.2	0.9	20
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium				
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	28300	26000	108.8	80-120
Lead	anr			
Magnesium				
Manganese	557	500	111.4	80-120
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium				
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	5910	5600	5.3	0-10
Lead	anr			
Magnesium				
Manganese	554	528	4.6	0-10
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	Sample ml	Final ml	FA15195-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	5910	5791.8	8987	0.2	150	3000	106.5	80-120
Lead										
Magnesium										
Manganese	9.8	10	553.6	542.528	592.8	0.2	2.5	50	100.5	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP27307: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP24050/GN61571			mg/l	12.5	13.4	107.2	90-110%
Nitrogen, Nitrate	GP24050/GN61571	0.10	0.0	mg/l	2.5	2.42	96.8	90-110%
Nitrogen, Nitrite	GP24050/GN61571	0.10	0.0	mg/l	2.5	2.61	104.4	90-110%
Sulfate	GP24050/GN61571	2.0	0.0	mg/l	50	48.8	97.6	90-110%
Sulfite	GN61564	3.0	0.0	mg/l	34.5	34.0	98.6	80-120%
Total Organic Carbon	GP24060/GN61587	1.0	0.0	mg/l	15	15.2	101.3	90-110%

Associated Samples:
Batch GN61564: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
Batch GP24050: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
Batch GP24060: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Total Organic Carbon	GP24060/GN61587	FA15195-1	mg/l	0.49 B	0.32	42.0(a)	0-20%

Associated Samples:
Batch GP24060: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate	GP24050/GN61571	FA15195-2	mg/l	0.79	2.5	3.2	96.4	90-110%
Nitrogen, Nitrate	GP24050/GN61571	FA15195-3	mg/l	0.56	2.5	3.1	101.6	90-110%
Nitrogen, Nitrite	GP24050/GN61571	FA15195-2	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Nitrogen, Nitrite	GP24050/GN61571	FA15195-3	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Sulfate	GP24050/GN61571	FA15195-2	mg/l	25.8	50	73.8	96.0	90-110%
Sulfate	GP24050/GN61571	FA15195-3	mg/l	51.8	50	97.9	92.2	90-110%
Sulfite	GN61564	FA15195-7	mg/l	1.5 U	34.5	36.5	106.0	75-125%
Total Organic Carbon	GP24060/GN61587	FA15195-1	mg/l	0.49 B	15	15.2	98.1	90-110%

Associated Samples:
Batch GN61564: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
Batch GP24050: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
Batch GP24060: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15195
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrate	GP24050/GN61571	FA15195-2	mg/l	0.79	2.5	3.2	0.0	20%
Nitrogen, Nitrate	GP24050/GN61571	FA15195-3	mg/l	0.56	2.5	3.1	0.0	20%
Nitrogen, Nitrite	GP24050/GN61571	FA15195-2	mg/l	0.050 U	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP24050/GN61571	FA15195-3	mg/l	0.050 U	2.5	2.6	3.9	20%
Sulfate	GP24050/GN61571	FA15195-2	mg/l	25.8	50	73.7	0.1	20%
Sulfate	GP24050/GN61571	FA15195-3	mg/l	51.8	50	97.8	0.1	20%
Sulfite	GN61564	FA15195-7	mg/l	1.5 U	34.5mg/l	35.5	2.8	

Associated Samples:
Batch GN61564: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
Batch GP24050: FA15195-1, FA15195-2, FA15195-3, FA15195-4, FA15195-5, FA15195-6, FA15195-7
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA15249

Sampling Date: 05/22/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **26**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest LabLink@153230 13:25 12-Aug-2014

Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA15249

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA15249-1	05/22/14	12:05	RMTF	05/23/14	AQ	Ground Water	DW-4

Summary of Hits

Job Number: FA15249
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/22/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15249-1	**DW-4**					
Trichloroethylene		7.6	1.0	0.30	ug/l	SW846 8260B
m,p-Xylene		0.61 J	2.0	0.48	ug/l	SW846 8260B
o-Xylene		0.40 J	1.0	0.20	ug/l	SW846 8260B

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15249-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26094.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	110%		74-125%
2037-26-5	Toluene-D8	91%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15249-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0076832.D	1	06/02/14	RB	n/a	n/a	VN3364
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15249-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	7.6	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	0.61	2.0	0.48	ug/l	J
95-47-6	o-Xylene	0.40	1.0	0.20	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15249-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.39	8800	ug/l	JN
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA15244 PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: ERM NC INC
Address: 5720 Dolly Delany Pt.
City: Charlotte State: NC Zip: 28277
Project Contact: Lane Dorman E-mail: lane.dorman@erm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): R. Mayette, T. Fisher

Project Information

Project Name: ECI - ELON
Street: 100 Rogo Dr.
City: ELON State: NC
Project #
Fax #
Client Purchase Order #

Analytical Information

VOC 8260
1,4-D

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	VOC 8260	1,4-D	LAB USE ONLY
1	DW-4	5/22/14	1205	RM	GW	6			X							X	X	

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3) RALEIGH, NC
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S SVC CENTER

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 ERM	5/22/14 1210	2	3	5/22/14 1300	4 FX
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5 FX	05/22/14 1:45	6 05/22/14 1:45	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 4.0

4.1
4

FA15249: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: HA15249 CLIENT: ERM PROJECT: ECI

DATE/TIME RECEIVED: 05/23/14 9:45 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7700 7309 2470

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 4.2
- [ ] CORRECTED TEMPS: 4.0

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 05/23/14 REVIEWER SIGNATURE/DATE 05-23-14

RS 04/14

receipt confirmation 041514.xls

4.1

4

FA15249: Chain of Custody

Page 2 of 3

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx. Express

J14101402070326

Ship Date: 22MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

SHIP TO: (407) 425-6700
Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

BILL SENDER

Ref #
Invoice #
PO #
Dept #

3 of 4

MPS# 0263 7700 7309 2470

Mstr# 7700 7309 1922 0201

FRI - 23 MAY AA
STANDARD OVERNIGHT

XH TIXA

32811
FL-US
MCO

522G1/6203/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-MB	Z26076.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15249-1

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	115%	74-125%
2037-26-5	Toluene-D8	91%	88-111%

Method Blank Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-MB	N0076817.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-MB	N0076817.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-MB	N0076817.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	101%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
75-21-8	Ethylene oxide	2.39	500	ug/l	JN
	Total TIC, Volatile		500	ug/l	J

Blank Spike Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-BS	Z26075.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15249-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	47.0	94	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	114%	74-125%
2037-26-5	Toluene-D8	92%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-BS	N0076816.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	180	144	50-147
107-02-8	Acrolein	125	41.1	33	31-154
107-13-1	Acrylonitrile	125	125	100	58-126
71-43-2	Benzene	25	24.5	98	81-122
108-86-1	Bromobenzene	25	24.5	98	80-121
74-97-5	Bromochloromethane	25	24.3	97	76-123
75-27-4	Bromodichloromethane	25	25.3	101	79-123
75-25-2	Bromoform	25	23.7	95	66-123
104-51-8	n-Butylbenzene	25	26.4	106	79-126
135-98-8	sec-Butylbenzene	25	26.8	107	83-133
98-06-6	tert-Butylbenzene	25	27.5	110	80-133
108-90-7	Chlorobenzene	25	26.2	105	82-124
75-00-3	Chloroethane	25	23.3	93	62-144
67-66-3	Chloroform	25	25.7	103	80-124
95-49-8	o-Chlorotoluene	25	26.3	105	81-127
106-43-4	p-Chlorotoluene	25	26.8	107	83-130
110-75-8	2-Chloroethyl vinyl ether	125	122	98	56-122
75-15-0	Carbon disulfide	25	25.5	102	66-148
56-23-5	Carbon tetrachloride	25	28.1	112	76-136
75-34-3	1,1-Dichloroethane	25	25.3	101	81-122
75-35-4	1,1-Dichloroethylene	25	28.6	114	78-137
563-58-6	1,1-Dichloropropene	25	27.2	109	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	25.7	103	64-123
106-93-4	1,2-Dibromoethane	25	24.3	97	75-120
107-06-2	1,2-Dichloroethane	25	26.1	104	75-125
78-87-5	1,2-Dichloropropane	25	24.4	98	76-124
142-28-9	1,3-Dichloropropane	25	24.0	96	80-118
594-20-7	2,2-Dichloropropane	25	29.7	119	74-139
124-48-1	Dibromochloromethane	25	24.0	96	78-122
75-71-8	Dichlorodifluoromethane	25	29.8	119	42-167
156-59-2	cis-1,2-Dichloroethylene	25	24.7	99	78-120
10061-01-5	cis-1,3-Dichloropropene	25	25.6	102	75-118
541-73-1	m-Dichlorobenzene	25	26.5	106	84-125
95-50-1	o-Dichlorobenzene	25	26.9	108	82-124
106-46-7	p-Dichlorobenzene	25	24.1	96	78-120
156-60-5	trans-1,2-Dichloroethylene	25	25.5	102	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-BS	N0076816.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	27.2	109	80-120
100-41-4	Ethylbenzene	25	25.3	101	81-121
591-78-6	2-Hexanone	125	152	122	61-129
87-68-3	Hexachlorobutadiene	25	27.5	110	75-142
98-82-8	Isopropylbenzene	25	28.6	114	83-132
99-87-6	p-Isopropyltoluene	25	26.1	104	79-130
108-10-1	4-Methyl-2-pentanone	125	116	93	66-122
74-83-9	Methyl bromide	25	23.9	96	59-143
74-87-3	Methyl chloride	25	26.3	105	50-159
74-95-3	Methylene bromide	25	24.7	99	78-119
75-09-2	Methylene chloride	25	23.5	94	69-135
78-93-3	Methyl ethyl ketone	125	145	116	56-143
1634-04-4	Methyl Tert Butyl Ether	25	24.0	96	72-117
91-20-3	Naphthalene	25	22.7	91	63-132
103-65-1	n-Propylbenzene	25	26.1	104	82-133
100-42-5	Styrene	25	25.8	103	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	24.9	100	77-122
71-55-6	1,1,1-Trichloroethane	25	28.2	113	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	23.4	94	72-120
79-00-5	1,1,2-Trichloroethane	25	23.3	93	76-119
87-61-6	1,2,3-Trichlorobenzene	25	25.6	102	68-131
96-18-4	1,2,3-Trichloropropane	25	25.0	100	77-120
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	73-129
95-63-6	1,2,4-Trimethylbenzene	25	23.7	95	79-120
108-67-8	1,3,5-Trimethylbenzene	25	25.5	102	79-120
127-18-4	Tetrachloroethylene	25	26.0	104	76-135
108-88-3	Toluene	25	24.5	98	80-120
79-01-6	Trichloroethylene	25	25.0	100	81-126
75-69-4	Trichlorofluoromethane	25	29.5	118	71-156
75-01-4	Vinyl chloride	25	24.8	99	69-159
108-05-4	Vinyl Acetate	125	146	117	43-154
	m,p-Xylene	50	51.1	102	79-126
95-47-6	o-Xylene	25	25.4	102	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3364-BS	N0076816.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-2MS	Z26098.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2MSD	Z26099.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2	Z26085.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15249-1

CAS No.	Compound	FA15195-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		50	46.8	94	50	48.1	96	3	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA15195-2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%	108%	112%	74-125%
2037-26-5	Toluene-D8	91%	91%	91%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15249-1MS	N0076833.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1MSD	N0076834.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1	N0076832.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	FA15249-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	97.0	78	125	93.9	75	3	50-147/21
107-02-8	Acrolein	ND		125	184	147	125	167	134	10	31-154/29
107-13-1	Acrylonitrile	ND		125	128	102	125	127	102	1	58-126/16
71-43-2	Benzene	ND		25	26.8	107	25	24.9	100	7	81-122/14
108-86-1	Bromobenzene	ND		25	26.7	107	25	24.6	98	8	80-121/14
74-97-5	Bromochloromethane	ND		25	25.5	102	25	24.0	96	6	76-123/14
75-27-4	Bromodichloromethane	ND		25	26.5	106	25	24.9	100	6	79-123/19
75-25-2	Bromoform	ND		25	24.0	96	25	22.4	90	7	66-123/21
104-51-8	n-Butylbenzene	ND		25	27.8	111	25	24.9	100	11	79-126/16
135-98-8	sec-Butylbenzene	ND		25	27.8	111	25	24.9	100	11	83-133/16
98-06-6	tert-Butylbenzene	ND		25	28.5	114	25	26.1	104	9	80-133/16
108-90-7	Chlorobenzene	ND		25	28.5	114	25	26.7	107	7	82-124/14
75-00-3	Chloroethane	ND		25	21.0	84	25	19.8	79	6	62-144/20
67-66-3	Chloroform	ND		25	26.5	106	25	25.1	100	5	80-124/15
95-49-8	o-Chlorotoluene	ND		25	27.7	111	25	25.7	103	7	81-127/15
106-43-4	p-Chlorotoluene	ND		25	28.7	115	25	26.5	106	8	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	24.8	20*	125	ND	0*	200*	56-122/23
75-15-0	Carbon disulfide	ND		25	25.1	100	25	22.2	89	12	66-148/23
56-23-5	Carbon tetrachloride	ND		25	28.8	115	25	25.6	102	12	76-136/23
75-34-3	1,1-Dichloroethane	ND		25	26.4	106	25	24.7	99	7	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	29.2	117	25	26.8	107	9	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	29.4	118	25	27.1	108	8	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	26.2	105	25	25.2	101	4	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	26.0	104	25	25.1	100	4	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	26.7	107	25	25.4	102	5	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	26.8	107	25	25.4	102	5	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	26.1	104	25	25.1	100	4	80-118/13
594-20-7	2,2-Dichloropropane	ND		25	30.9	124	25	27.8	111	11	74-139/17
124-48-1	Dibromochloromethane	ND		25	24.7	99	25	23.5	94	5	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	26.2	105	25	24.2	97	8	42-167/19
156-59-2	cis-1,2-Dichloroethylene	ND		25	26.8	107	25	25.4	102	5	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	26.5	106	25	24.7	99	7	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	28.2	113	25	26.2	105	7	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	28.1	112	25	26.5	106	6	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	25.6	102	25	23.9	96	7	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.0	108	25	24.9	100	8	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15249-1MS	N0076833.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1MSD	N0076834.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1	N0076832.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Compound	FA15249-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	28.1	112	25	26.6	106	5	80-120/22
100-41-4	Ethylbenzene	ND		25	27.2	109	25	25.1	100	8	81-121/14
591-78-6	2-Hexanone	ND		125	132	106	125	128	102	3	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	26.6	106	25	19.9	80	29*	75-142/19
98-82-8	Isopropylbenzene	ND		25	30.5	122	25	27.7	111	10	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	27.4	110	25	24.6	98	11	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	123	98	125	121	97	2	66-122/16
74-83-9	Methyl bromide	ND		25	23.0	92	25	21.2	85	8	59-143/19
74-87-3	Methyl chloride	ND		25	26.1	104	25	23.3	93	11	50-159/19
74-95-3	Methylene bromide	ND		25	26.2	105	25	25.3	101	3	78-119/14
75-09-2	Methylene chloride	ND		25	25.6	102	25	23.9	96	7	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	109	87	125	108	86	1	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	25.0	100	25	24.3	97	3	72-117/14
91-20-3	Naphthalene	ND		25	23.4	94	25	22.7	91	3	63-132/25
103-65-1	n-Propylbenzene	ND		25	28.2	113	25	25.6	102	10	82-133/15
100-42-5	Styrene	ND		25	27.4	110	25	25.4	102	8	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	26.5	106	25	24.6	98	7	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	28.6	114	25	26.1	104	9	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	25.9	104	25	25.1	100	3	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	25.2	101	25	25.2	101	0	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	25.7	103	25	24.0	96	7	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	26.5	106	25	26.5	106	0	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	26.9	108	25	24.9	100	8	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	25.2	101	25	23.1	92	9	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	26.8	107	25	24.8	99	8	79-120/19
127-18-4	Tetrachloroethylene	ND		25	27.9	112	25	25.7	103	8	76-135/16
108-88-3	Toluene	ND		25	26.4	106	25	24.7	99	7	80-120/14
79-01-6	Trichloroethylene	7.6		25	33.7	104	25	31.2	94	8	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	26.1	104	25	22.9	92	13	71-156/21
75-01-4	Vinyl chloride	ND		25	23.9	96	25	21.6	86	10	69-159/18
108-05-4	Vinyl Acetate	ND		125	155	124	125	151	121	3	43-154/14
	m,p-Xylene	0.61	J	50	54.7	108	50	50.0	99	9	79-126/15
95-47-6	o-Xylene	0.40	J	25	28.0	110	25	25.9	102	8	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15249
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15249-1MS	N0076833.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1MSD	N0076834.D	1	06/02/14	RB	n/a	n/a	VN3364
FA15249-1	N0076832.D	1	06/02/14	RB	n/a	n/a	VN3364

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15249-1

CAS No.	Surrogate Recoveries	MS	MSD	FA15249-1	Limits
1868-53-7	Dibromofluoromethane	99%	100%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	103%	100%	79-125%
2037-26-5	Toluene-D8	99%	99%	98%	85-112%
460-00-4	4-Bromofluorobenzene	98%	98%	101%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

Accutest Job Number: FA15250

Sampling Date: 05/22/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **76**

NELAP ACCREDITED TNI LABORATORY

Norm Farmer
Technical Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Accutest LabLink@153230 14:26 12-Aug-2014

Sample Summary

ERM

ECI; 100 Rego Dr, Elon, NC

Job No: FA15250

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA15250-1	05/22/14	08:20	RMTF	05/23/14	AQ	Ground Water	MW-7
FA15250-2	05/22/14	09:20	RMTF	05/23/14	AQ	Ground Water	GP-2
FA15250-3	05/22/14	00:00	RMTF	05/23/14	AQ	Ground Water	DUP-2
FA15250-4	05/22/14	09:25	RMTF	05/23/14	AQ	Equipment Blank	EB-1
FA15250-5	05/22/14	00:00	RMTF	05/23/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: FA15250
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/22/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15250-1	**MW-7**					
cis-1,2-Dichloroethylene		59.6	50	16	ug/l	SW846 8260B
Tetrachloroethylene		99.7	50	13	ug/l	SW846 8260B
Trichloroethylene		3030	50	15	ug/l	SW846 8260B
1,4-Dioxane		0.82 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Iron		399	300	17	ug/l	SW846 6010C
Manganese		85.2	15	1.0	ug/l	SW846 6010C
Nitrogen, Nitrate		0.25	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		0.67 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
FA15250-2	**GP-2**					
Chloroform		3.3	2.0	0.62	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		1.5 J	2.0	0.65	ug/l	SW846 8260B
Tetrachloroethylene		75.7	2.0	0.51	ug/l	SW846 8260B
Trichloroethylene		1470	20	6.0	ug/l	SW846 8260B
1,4-Dioxane		0.43 J	1.0	0.30	ug/l	SW846 8260B BY SIM
Total TIC, Volatile		140 J			ug/l	
Copper [a]		1410	500	20	ug/l	SW846 6010C
Iron [a]		344000	6000	340	ug/l	SW846 6010C
Manganese [a]		8610	300	20	ug/l	SW846 6010C
Nickel [a]		422 B	800	10	ug/l	SW846 6010C
Zinc [a]		983	400	60	ug/l	SW846 6010C
Nitrogen, Nitrate		0.99	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate		1.3 B	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		0.40 B	1.0	0.23	mg/l	SM5310 B-11/SW9060A
FA15250-3	**DUP-2**					
cis-1,2-Dichloroethylene		55.8	50	16	ug/l	SW846 8260B
Tetrachloroethylene		98.7	50	13	ug/l	SW846 8260B
Toluene		10.9 J	50	10	ug/l	SW846 8260B
Trichloroethylene		2960	50	15	ug/l	SW846 8260B
1,4-Dioxane		0.81 J	1.0	0.30	ug/l	SW846 8260B BY SIM
FA15250-4	**EB-1**					
Toluene		0.30 J	1.0	0.20	ug/l	SW846 8260B
Total TIC, Volatile		154 J			ug/l	
Iron		64.6 B	300	17	ug/l	SW846 6010C
FA15250-5	**TRIP BLANK**					
Total TIC, Volatile		250 J			ug/l	

Summary of Hits

Job Number: FA15250
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 05/22/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

(a) Elevated reporting limit(s) due to matrix interference.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26095.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.82	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	110%		74-125%
2037-26-5	Toluene-D8	88%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O24263.D	50	05/31/14	MM	n/a	n/a	VO941
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1300	530	ug/l	
107-02-8	Acrolein	ND	1000	320	ug/l	
107-13-1	Acrylonitrile	ND	500	100	ug/l	
71-43-2	Benzene	ND	50	12	ug/l	
108-86-1	Bromobenzene	ND	50	16	ug/l	
74-97-5	Bromochloromethane	ND	50	19	ug/l	
75-27-4	Bromodichloromethane	ND	50	13	ug/l	
75-25-2	Bromoform	ND	50	19	ug/l	
104-51-8	n-Butylbenzene	ND	50	15	ug/l	
135-98-8	sec-Butylbenzene	ND	50	14	ug/l	
98-06-6	tert-Butylbenzene	ND	50	14	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
67-66-3	Chloroform	ND	50	16	ug/l	
95-49-8	o-Chlorotoluene	ND	50	11	ug/l	
106-43-4	p-Chlorotoluene	ND	50	15	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	50	ug/l	
75-15-0	Carbon disulfide	ND	100	10	ug/l	
56-23-5	Carbon tetrachloride	ND	50	20	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	13	ug/l	
75-35-4	1,1-Dichloroethylene	ND	50	13	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	14	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	39	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	12	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	12	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	18	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	17	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	17	ug/l	
124-48-1	Dibromochloromethane	ND	50	18	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	17	ug/l	
156-59-2	cis-1,2-Dichloroethylene	59.6	50	16	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	10	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	50	10	ug/l	
95-50-1	o-Dichlorobenzene	ND	50	15	ug/l	
106-46-7	p-Dichlorobenzene	ND	50	10	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	50	17	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	11	ug/l	
100-41-4	Ethylbenzene	ND	50	14	ug/l	
591-78-6	2-Hexanone	ND	500	100	ug/l	
87-68-3	Hexachlorobutadiene	ND	100	25	ug/l	
98-82-8	Isopropylbenzene	ND	50	10	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	12	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	50	ug/l	
74-83-9	Methyl bromide	ND	100	27	ug/l	
74-87-3	Methyl chloride	ND	100	27	ug/l	
74-95-3	Methylene bromide	ND	100	15	ug/l	
75-09-2	Methylene chloride	ND	250	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	74	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	10	ug/l	
91-20-3	Naphthalene	ND	250	50	ug/l	
103-65-1	n-Propylbenzene	ND	50	12	ug/l	
100-42-5	Styrene	ND	50	12	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	13	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	14	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	25	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	100	29	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	25	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	100	12	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	100	10	ug/l	
127-18-4	Tetrachloroethylene	99.7	50	13	ug/l	
108-88-3	Toluene	ND	50	10	ug/l	
79-01-6	Trichloroethylene	3030	50	15	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	25	ug/l	
75-01-4	Vinyl chloride	ND	50	16	ug/l	
108-05-4	Vinyl Acetate	ND	500	100	ug/l	
	m,p-Xylene	ND	100	24	ug/l	
95-47-6	o-Xylene	ND	50	10	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.28	730000	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	399	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	85.2	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	FA15250-1	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.25	0.10	0.050	mg/l	1	05/23/14 14:17	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/23/14 14:17	CH	EPA 300/SW846 9056A
Sulfate	0.67 B	2.0	0.60	mg/l	1	05/23/14 14:17	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.23 U	1.0	0.23	mg/l	1	05/30/14 21:06	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26096.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.43	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%		74-125%
2037-26-5	Toluene-D8	89%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O24264.D	2	05/31/14	MM	n/a	n/a	VO941
Run #2	O24304.D	20	06/02/14	MM	n/a	n/a	VO942

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	21	ug/l	
107-02-8	Acrolein	ND	40	13	ug/l	
107-13-1	Acrylonitrile	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	2.0	0.49	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.63	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.75	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.52	ug/l	
75-25-2	Bromoform	ND	2.0	0.77	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.60	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.54	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.57	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.48	ug/l	
75-00-3	Chloroethane	ND	4.0	1.0	ug/l	
67-66-3	Chloroform	3.3	2.0	0.62	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.45	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.58	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.0	ug/l	
75-15-0	Carbon disulfide	ND	4.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.79	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.51	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.51	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.56	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.48	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.48	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.71	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.68	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.66	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.72	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	0.66	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.5	2.0	0.65	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.42	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.59	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.40	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	0.69	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.42	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.56	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.48	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	1.1	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.1	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.58	ug/l	
75-09-2	Methylene chloride	ND	10	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	3.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.40	ug/l	
91-20-3	Naphthalene	ND	10	2.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.48	ug/l	
100-42-5	Styrene	ND	2.0	0.47	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.67	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.55	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.63	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.49	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	4.0	0.40	ug/l	
127-18-4	Tetrachloroethylene	75.7	2.0	0.51	ug/l	
108-88-3	Toluene	ND	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	1470 [a]	20	6.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.65	ug/l	
108-05-4	Vinyl Acetate	ND	20	4.0	ug/l	
	m,p-Xylene	ND	4.0	0.96	ug/l	
95-47-6	o-Xylene	ND	2.0	0.40	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	105%	79-125%
2037-26-5	Toluene-D8	98%	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	100%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.28	71000	ug/l	JNB
75-12-7	Formamide	4.71	140	ug/l	JN
	Total TIC, Volatile		140	ug/l	J

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony [a]	46 U	120	46	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium [a]	10 U	80	10	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Copper [a]	1410	500	20	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Iron [a]	344000	6000	340	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese [a]	8610	300	20	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel [a]	422 B	800	10	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium [a]	40 U	200	40	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc [a]	983	400	60	ug/l	20	05/28/14	05/29/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11630
(2) Prep QC Batch: MP27307

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GP-2		
Lab Sample ID:	FA15250-2	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.99	0.10	0.050	mg/l	1	05/23/14 14:34	CH	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	05/23/14 14:34	CH	EPA 300/SW846 9056A
Sulfate	1.3 B	2.0	0.60	mg/l	1	05/23/14 14:34	CH	EPA 300/SW846 9056A
Sulfite [a]	1.5 U	3.0	1.5	mg/l	1	05/23/14 10:11	LE	SM4500SO3 B-11
Total Organic Carbon	0.40 B	1.0	0.23	mg/l	1	05/30/14 21:20	FN	SM5310 B-11/SW9060A

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA15250-3	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26097.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	0.81	1.0	0.30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%		74-125%
2037-26-5	Toluene-D8	89%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA15250-3	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O24265.D	50	05/31/14	MM	n/a	n/a	VO941
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1300	530	ug/l	
107-02-8	Acrolein	ND	1000	320	ug/l	
107-13-1	Acrylonitrile	ND	500	100	ug/l	
71-43-2	Benzene	ND	50	12	ug/l	
108-86-1	Bromobenzene	ND	50	16	ug/l	
74-97-5	Bromochloromethane	ND	50	19	ug/l	
75-27-4	Bromodichloromethane	ND	50	13	ug/l	
75-25-2	Bromoform	ND	50	19	ug/l	
104-51-8	n-Butylbenzene	ND	50	15	ug/l	
135-98-8	sec-Butylbenzene	ND	50	14	ug/l	
98-06-6	tert-Butylbenzene	ND	50	14	ug/l	
108-90-7	Chlorobenzene	ND	50	12	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
67-66-3	Chloroform	ND	50	16	ug/l	
95-49-8	o-Chlorotoluene	ND	50	11	ug/l	
106-43-4	p-Chlorotoluene	ND	50	15	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	50	ug/l	
75-15-0	Carbon disulfide	ND	100	10	ug/l	
56-23-5	Carbon tetrachloride	ND	50	20	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	13	ug/l	
75-35-4	1,1-Dichloroethylene	ND	50	13	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	14	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	39	ug/l	
106-93-4	1,2-Dibromoethane	ND	50	12	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	12	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	18	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	17	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	17	ug/l	
124-48-1	Dibromochloromethane	ND	50	18	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	17	ug/l	
156-59-2	cis-1,2-Dichloroethylene	55.8	50	16	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	10	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA15250-3	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	50	10	ug/l	
95-50-1	o-Dichlorobenzene	ND	50	15	ug/l	
106-46-7	p-Dichlorobenzene	ND	50	10	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	50	17	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	11	ug/l	
100-41-4	Ethylbenzene	ND	50	14	ug/l	
591-78-6	2-Hexanone	ND	500	100	ug/l	
87-68-3	Hexachlorobutadiene	ND	100	25	ug/l	
98-82-8	Isopropylbenzene	ND	50	10	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	12	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	50	ug/l	
74-83-9	Methyl bromide	ND	100	27	ug/l	
74-87-3	Methyl chloride	ND	100	27	ug/l	
74-95-3	Methylene bromide	ND	100	15	ug/l	
75-09-2	Methylene chloride	ND	250	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	74	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	10	ug/l	
91-20-3	Naphthalene	ND	250	50	ug/l	
103-65-1	n-Propylbenzene	ND	50	12	ug/l	
100-42-5	Styrene	ND	50	12	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	13	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	17	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	14	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	25	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	100	29	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	25	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	100	12	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	100	10	ug/l	
127-18-4	Tetrachloroethylene	98.7	50	13	ug/l	
108-88-3	Toluene	10.9	50	10	ug/l	J
79-01-6	Trichloroethylene	2960	50	15	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	25	ug/l	
75-01-4	Vinyl chloride	ND	50	16	ug/l	
108-05-4	Vinyl Acetate	ND	500	100	ug/l	
	m,p-Xylene	ND	100	24	ug/l	
95-47-6	o-Xylene	ND	50	10	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-2		
Lab Sample ID:	FA15250-3	**Date Sampled:**	05/22/14
Matrix:	AQ - Ground Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.28	690000	ug/l	JNB
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26080.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	114%		74-125%
2037-26-5	Toluene-D8	92%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M74749.D	1	05/30/14	RB	n/a	n/a	VM3156
Run #2 [a]	O24260.D	1	05/31/14	MM	n/a	n/a	VO941

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein [b]	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	0.30	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	101%	79-125%
2037-26-5	Toluene-D8	99%	99%	85-112%
460-00-4	4-Bromofluorobenzene	97%	100%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
6630-30-4	2,4(1H,3H)-Pyrimidinedione, 6-chloro-5-n	2.79	69	ug/l	JN
15780-65-1	Acetoacetic acid, 1-thio-, S-allyl ester	4.26	85	ug/l	JN
	Total TIC, Volatile		154	ug/l	J

(a) Confirmation run.
(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	64.6 B	300	17	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	1.0 U	15	1.0	ug/l	1	05/28/14	05/28/14	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA11628
(2) Prep QC Batch: MP27307

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	EB-1		
Lab Sample ID:	FA15250-4	**Date Sampled:**	05/22/14
Matrix:	AQ - Equipment Blank	**Date Received:**	05/23/14
		Percent Solids:	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.23 U	1.0	0.23	mg/l	1	05/30/14 21:34	FN	SM5310 B-11/SW9060A

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15250-5	**Date Sampled:**	05/22/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/23/14
Method:	SW846 8260B BY SIM	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z26081.D	1	05/30/14	KW	n/a	n/a	VZ1017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	113%		74-125%
2037-26-5	Toluene-D8	90%		88-111%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15250-5	**Date Sampled:**	05/22/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O24261.D	1	05/31/14	MM	n/a	n/a	VO941
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15250-5	**Date Sampled:**	05/22/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15250-5	**Date Sampled:**	05/22/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	102%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.28	12000	ug/l	JNB
67-63-0	Isopropyl Alcohol	4.71	250	ug/l	JN
	Total TIC, Volatile		250	ug/l	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA15250 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: EPM NC INC
Address: 15720 John Delaney Dr.
City: Charlotte State: NC Zip: 28277
Project Contact: Lane Darmon E-mail: Lane.Darmon@epm.com
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): RYAN MAyette Thomas Fisher

Project Information

Project Name: ECI - ELON
Street: 100 Rogo Dr.
City: ELON State: NC
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	VOC 8260	1,4 D	MNA*	HSL**	TOC
1	MW-7	5/22/14	820	RM	GW	10			X		X					X	X	X		X
2	GP-2	5/22/14	920	RM	GW	11			X		X					X	X	X	X	X
3	Dup-2	~~5/22/14~~	—	RM	GW	6			X							X	X			
4	EB-1	5/22/14	925	TF	W	10			X							X	X	X		X
5	Trip Blank	5/22/14	—	—	LIQ	2			X							X	X			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

RALEIGH.NC

SVC CENTER

Comments / Remarks

*MNA - Nitrate/Nitrite, Sulfate/Sulfate Iron, Mn and TOC

**HSL - antimony, barrillium, Cu, Mn, Ni, Th, Zn

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 EPM	5/22/14 1000	2 Grant Radell	3 Grant Radell	5/23/14 1803	4 FX
Relinquished by: 5 FX	Date Time: 05/23/14 9:45	Received By: 6 05/23/14 9:45	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 4.0

FA15250: Chain of Custody
Page 1 of 6

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA15250 CLIENT: ERM PROJECT: ELON

DATE/TIME RECEIVED: 05/23/14 9:45 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7700 7309 2470

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 4.2
- [ ] CORRECTED TEMPS: 4.0

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 05/23/14 REVIEWER SIGNATURE/DATE [signature] 05-23-14

RS 04/14

receipt confirmation 041514.xls

4.1

4

FA15250: Chain of Custody

Page 2 of 6

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J1410140207032G

Ship Date: 22MAY14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

SHIP TO: (407) 425-6700
BILL SENDER

Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

Ref #
Invoice #
PO #
Dept #

3 of 4

FRI - 23 MAY AA
STANDARD OVERNIGHT

MPS# 7700 7309 2470
0263

Mstr# 7700 7309 1922
0201

XH TIXA

32811
FL-US
MCO

522G1/6203/F220

FA15250: Chain of Custody
Page 3 of 6

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA16250 PAGE_____OF_____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: AET
Address: 1933 Commonwelth lane
City: Tallahassee State: Florida Zip: 32303
Project Contact: Mitch Byler E-mail:
Phone#:
Sampler(s) Name(s) (Printed): Danny Clayton

Project Information

Project Name: Petro Mart 108
Street: 1824 Tennessee St
City: Lynn Haven State: Florida
Project #: 24082.13
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	8021B BTEX/MTBE										Matrix Codes / LAB USE ONLY
1	DW 12	6/25	2:27	DC	GW	3			X							X										
2	DW 9	6/25	2:55	DC	GW	3			X							X										
3	DW 11	6/25	3:20	DC	GW	3			X							X										
4	DW 1R	6/25	3:50	DC	GW	3			X							X										
5	MW4	6/25	4:15	DC	GW	3			X							X										
6	DW 4	6/25	4:40	DC	GW	3			X							X										
7	DW 8	6/25	5:02	DC	GW	3			X							X										
8	DW 10	6/25	5:25	DC	GW	3			X							X										

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Danny Clayton		2	3		4 9:30 06-27-14
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.8

4.1
4

FA15250: Chain of Custody
Page 4 of 6

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA11250 CLIENT: AET PROJECT: Petromart 108

DATE/TIME RECEIVED: 06/27/14 9:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8047 2601 2240

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.4
- [ ] CORRECTED TEMPS: 2.8

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 06/27/14 REVIEWER SIGNATURE/DATE

RS 04/14

receipt confirmation 041514.xls

4.1

4

FA15250: Chain of Custody

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FedEx Express Package US Airbill

FedEx Tracking Number 8047 2601 2240

1 From

Date 6/26/2014

Sender's Name Advanced Environmental Phone 800 989-8298

Company

Address 1933 Commonwealth lane

Dept./Floor/Suite/Room

City Tallahassee State FL ZIP 32303

2 Your Internal Billing Reference

3 To

Recipient's Name SUPPLY REQ Phone 407 425-6700

Company ACCUTEST LABORATORIES FL, INC

Address 4405 VINE AVE RD STE C-5

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City ORLANDO State FL ZIP 32803-2003

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8047 2601 2240

fedex.com 1800.GoFedEx 1800.463.3339

MDR4

No. 0215 7/8/14

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No. [ ]

- [ ] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages 1 Total Weight 22 lbs.

Credit Card Auth.

611

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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fedex.com 1800.GoFedEx 1800.463.3339

FA15250: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-MB	Z26076.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15250-1, FA15250-2, FA15250-3, FA15250-4, FA15250-5

CAS No.	Compound	Result	RL	MDL	Units	Q
123-91-1	1,4-Dioxane	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	115%	74-125%
2037-26-5	Toluene-D8	91%	88-111%

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-MB	M74727.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
75-07-0	Acetaldehyde	2.19	65	ug/l	JN
	Total TIC, Volatile		65	ug/l	J

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-MB	O24259.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-MB	O24259.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-MB	O24259.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	2.27	6000	ug/l	JN
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO942-MB	O24288.D	1	06/02/14	MM	n/a	n/a	VO942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-2

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ1017-BS	Z26075.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15250-1, FA15250-2, FA15250-3, FA15250-4, FA15250-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
123-91-1	1,4-Dioxane	50	47.0	94	65-121

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	114%	74-125%
2037-26-5	Toluene-D8	92%	88-111%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	178	142	50-147
107-02-8	Acrolein	125	197	158*	31-154
107-13-1	Acrylonitrile	125	128	102	58-126
71-43-2	Benzene	25	25.4	102	81-122
108-86-1	Bromobenzene	25	21.6	86	80-121
74-97-5	Bromochloromethane	25	23.5	94	76-123
75-27-4	Bromodichloromethane	25	25.9	104	79-123
75-25-2	Bromoform	25	27.9	112	66-123
104-51-8	n-Butylbenzene	25	20.7	83	79-126
135-98-8	sec-Butylbenzene	25	24.4	98	83-133
98-06-6	tert-Butylbenzene	25	24.5	98	80-133
108-90-7	Chlorobenzene	25	26.6	106	82-124
75-00-3	Chloroethane	25	20.7	83	62-144
67-66-3	Chloroform	25	23.2	93	80-124
95-49-8	o-Chlorotoluene	25	23.7	95	81-127
106-43-4	p-Chlorotoluene	25	25.2	101	83-130
110-75-8	2-Chloroethyl vinyl ether	125	136	109	56-122
75-15-0	Carbon disulfide	25	24.2	97	66-148
56-23-5	Carbon tetrachloride	25	25.0	100	76-136
75-34-3	1,1-Dichloroethane	25	24.5	98	81-122
75-35-4	1,1-Dichloroethylene	25	28.2	113	78-137
563-58-6	1,1-Dichloropropene	25	28.2	113	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	22.7	91	64-123
106-93-4	1,2-Dibromoethane	25	25.4	102	75-120
107-06-2	1,2-Dichloroethane	25	24.1	96	75-125
78-87-5	1,2-Dichloropropane	25	25.2	101	76-124
142-28-9	1,3-Dichloropropane	25	24.9	100	80-118
594-20-7	2,2-Dichloropropane	25	26.2	105	74-139
124-48-1	Dibromochloromethane	25	24.1	96	78-122
75-71-8	Dichlorodifluoromethane	25	24.1	96	42-167
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	78-120
10061-01-5	cis-1,3-Dichloropropene	25	25.2	101	75-118
541-73-1	m-Dichlorobenzene	25	24.3	97	84-125
95-50-1	o-Dichlorobenzene	25	24.0	96	82-124
106-46-7	p-Dichlorobenzene	25	21.7	87	78-120
156-60-5	trans-1,2-Dichloroethylene	25	26.6	106	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	24.3	97	80-120
100-41-4	Ethylbenzene	25	25.1	100	81-121
591-78-6	2-Hexanone	125	153	122	61-129
87-68-3	Hexachlorobutadiene	25	23.8	95	75-142
98-82-8	Isopropylbenzene	25	27.2	109	83-132
99-87-6	p-Isopropyltoluene	25	23.2	93	79-130
108-10-1	4-Methyl-2-pentanone	125	141	113	66-122
74-83-9	Methyl bromide	25	22.6	90	59-143
74-87-3	Methyl chloride	25	23.9	96	50-159
74-95-3	Methylene bromide	25	25.1	100	78-119
75-09-2	Methylene chloride	25	27.5	110	69-135
78-93-3	Methyl ethyl ketone	125	146	117	56-143
1634-04-4	Methyl Tert Butyl Ether	25	24.1	96	72-117
91-20-3	Naphthalene	25	21.2	85	63-132
103-65-1	n-Propylbenzene	25	25.1	100	82-133
100-42-5	Styrene	25	23.8	95	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	24.9	100	77-122
71-55-6	1,1,1-Trichloroethane	25	25.0	100	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	22.3	89	72-120
79-00-5	1,1,2-Trichloroethane	25	24.8	99	76-119
87-61-6	1,2,3-Trichlorobenzene	25	21.8	87	68-131
96-18-4	1,2,3-Trichloropropane	25	22.9	92	77-120
120-82-1	1,2,4-Trichlorobenzene	25	19.7	79	73-129
95-63-6	1,2,4-Trimethylbenzene	25	21.8	87	79-120
108-67-8	1,3,5-Trimethylbenzene	25	23.2	93	79-120
127-18-4	Tetrachloroethylene	25	26.7	107	76-135
108-88-3	Toluene	25	24.5	98	80-120
79-01-6	Trichloroethylene	25	25.0	100	81-126
75-69-4	Trichlorofluoromethane	25	36.6	146	71-156
75-01-4	Vinyl chloride	25	23.8	95	69-159
108-05-4	Vinyl Acetate	125	148	118	43-154
	m,p-Xylene	50	55.5	111	79-126
95-47-6	o-Xylene	25	25.4	102	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM3156-BS	M74725.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	91%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-BS	O24257.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	168	134	50-147
107-02-8	Acrolein	125	172	138	31-154
107-13-1	Acrylonitrile	125	138	110	58-126
71-43-2	Benzene	25	27.1	108	81-122
108-86-1	Bromobenzene	25	27.7	111	80-121
74-97-5	Bromochloromethane	25	25.9	104	76-123
75-27-4	Bromodichloromethane	25	26.2	105	79-123
75-25-2	Bromoform	25	23.5	94	66-123
104-51-8	n-Butylbenzene	25	26.9	108	79-126
135-98-8	sec-Butylbenzene	25	29.2	117	83-133
98-06-6	tert-Butylbenzene	25	28.5	114	80-133
108-90-7	Chlorobenzene	25	29.5	118	82-124
75-00-3	Chloroethane	25	31.0	124	62-144
67-66-3	Chloroform	25	27.5	110	80-124
95-49-8	o-Chlorotoluene	25	29.7	119	81-127
106-43-4	p-Chlorotoluene	25	29.0	116	83-130
110-75-8	2-Chloroethyl vinyl ether	125	144	115	56-122
75-15-0	Carbon disulfide	25	26.7	107	66-148
56-23-5	Carbon tetrachloride	25	29.6	118	76-136
75-34-3	1,1-Dichloroethane	25	28.4	114	81-122
75-35-4	1,1-Dichloroethylene	25	32.9	132	78-137
563-58-6	1,1-Dichloropropene	25	29.8	119	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	23.7	95	64-123
106-93-4	1,2-Dibromoethane	25	25.4	102	75-120
107-06-2	1,2-Dichloroethane	25	27.4	110	75-125
78-87-5	1,2-Dichloropropane	25	26.8	107	76-124
142-28-9	1,3-Dichloropropane	25	25.2	101	80-118
594-20-7	2,2-Dichloropropane	25	30.6	122	74-139
124-48-1	Dibromochloromethane	25	25.2	101	78-122
75-71-8	Dichlorodifluoromethane	25	32.5	130	42-167
156-59-2	cis-1,2-Dichloroethylene	25	26.8	107	78-120
10061-01-5	cis-1,3-Dichloropropene	25	25.9	104	75-118
541-73-1	m-Dichlorobenzene	25	29.8	119	84-125
95-50-1	o-Dichlorobenzene	25	29.2	117	82-124
106-46-7	p-Dichlorobenzene	25	26.5	106	78-120
156-60-5	trans-1,2-Dichloroethylene	25	29.0	116	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-BS	O24257.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	27.7	111	80-120
100-41-4	Ethylbenzene	25	28.0	112	81-121
591-78-6	2-Hexanone	125	157	126	61-129
87-68-3	Hexachlorobutadiene	25	29.1	116	75-142
98-82-8	Isopropylbenzene	25	29.0	116	83-132
99-87-6	p-Isopropyltoluene	25	29.2	117	79-130
108-10-1	4-Methyl-2-pentanone	125	132	106	66-122
74-83-9	Methyl bromide	25	30.4	122	59-143
74-87-3	Methyl chloride	25	32.6	130	50-159
74-95-3	Methylene bromide	25	25.6	102	78-119
75-09-2	Methylene chloride	25	32.0	128	69-135
78-93-3	Methyl ethyl ketone	125	150	120	56-143
1634-04-4	Methyl Tert Butyl Ether	25	26.3	105	72-117
91-20-3	Naphthalene	25	25.3	101	63-132
103-65-1	n-Propylbenzene	25	30.8	123	82-133
100-42-5	Styrene	25	25.7	103	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	26.1	104	77-122
71-55-6	1,1,1-Trichloroethane	25	29.8	119	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	25.0	100	72-120
79-00-5	1,1,2-Trichloroethane	25	24.8	99	76-119
87-61-6	1,2,3-Trichlorobenzene	25	26.1	104	68-131
96-18-4	1,2,3-Trichloropropane	25	25.8	103	77-120
120-82-1	1,2,4-Trichlorobenzene	25	26.2	105	73-129
95-63-6	1,2,4-Trimethylbenzene	25	25.9	104	79-120
108-67-8	1,3,5-Trimethylbenzene	25	26.0	104	79-120
127-18-4	Tetrachloroethylene	25	26.2	105	76-135
108-88-3	Toluene	25	27.0	108	80-120
79-01-6	Trichloroethylene	25	27.6	110	81-126
75-69-4	Trichlorofluoromethane	25	30.2	121	71-156
75-01-4	Vinyl chloride	25	28.4	114	69-159
108-05-4	Vinyl Acetate	125	170	136	43-154
	m,p-Xylene	50	57.9	116	79-126
95-47-6	o-Xylene	25	29.1	116	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO941-BS	O24257.D	1	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO942-BS	O24289.D	1	06/02/14	MM	n/a	n/a	VO942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-01-6	Trichloroethylene	25	27.6	110	81-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15195-2MS	Z26098.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2MSD	Z26099.D	1	05/30/14	KW	n/a	n/a	VZ1017
FA15195-2	Z26085.D	1	05/30/14	KW	n/a	n/a	VZ1017

The QC reported here applies to the following samples: **Method:** SW846 8260B BY SIM

FA15250-1, FA15250-2, FA15250-3, FA15250-4, FA15250-5

CAS No.	Compound	FA15195-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
123-91-1	1,4-Dioxane	ND		50	46.8	94	50	48.1	96	3	65-121/27

CAS No.	Surrogate Recoveries	MS	MSD	FA15195-2	Limits
17060-07-0	1,2-Dichloroethane-D4	109%	108%	112%	74-125%
2037-26-5	Toluene-D8	91%	91%	91%	88-111%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	FA15149-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	88.9	71	125	89.7	72	1	50-147/21
107-02-8	Acrolein	ND		125	168	134	125	167	134	1	31-154/29
107-13-1	Acrylonitrile	ND		125	119	95	125	124	99	4	58-126/16
71-43-2	Benzene	ND		25	28.4	114	25	26.8	107	6	81-122/14
108-86-1	Bromobenzene	ND		25	24.4	98	25	24.3	97	0	80-121/14
74-97-5	Bromochloromethane	ND		25	27.9	112	25	27.8	111	0	76-123/14
75-27-4	Bromodichloromethane	ND		25	28.3	113	25	27.2	109	4	79-123/19
75-25-2	Bromoform	ND		25	29.8	119	25	28.3	113	5	66-123/21
104-51-8	n-Butylbenzene	ND		25	23.3	93	25	22.6	90	3	79-126/16
135-98-8	sec-Butylbenzene	ND		25	27.5	110	25	27.1	108	1	83-133/16
98-06-6	tert-Butylbenzene	ND		25	26.6	106	25	27.1	108	2	80-133/16
108-90-7	Chlorobenzene	ND		25	29.3	117	25	27.6	110	6	82-124/14
75-00-3	Chloroethane	ND		25	21.0	84	25	18.8	75	11	62-144/20
67-66-3	Chloroform	ND		25	27.7	111	25	25.9	104	7	80-124/15
95-49-8	o-Chlorotoluene	ND		25	25.4	102	25	25.7	103	1	81-127/15
106-43-4	p-Chlorotoluene	ND		25	27.4	110	25	28.1	112	3	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		125	3.8	3*	125	ND	0*	200*	56-122/23
75-15-0	Carbon disulfide	ND		25	23.6	94	25	18.3	73	25*	66-148/23
56-23-5	Carbon tetrachloride	ND		25	28.1	112	25	26.9	108	4	76-136/23
75-34-3	1,1-Dichloroethane	ND		25	28.4	114	25	26.0	104	9	81-122/15
75-35-4	1,1-Dichloroethylene	ND		25	30.8	123	25	28.9	116	6	78-137/18
563-58-6	1,1-Dichloropropene	ND		25	32.0	128	25	29.9	120	7	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	24.2	97	25	25.2	101	4	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	27.5	110	25	26.7	107	3	75-120/13
107-06-2	1,2-Dichloroethane	ND		25	27.7	111	25	26.7	107	4	75-125/14
78-87-5	1,2-Dichloropropane	ND		25	28.4	114	25	27.3	109	4	76-124/14
142-28-9	1,3-Dichloropropane	ND		25	27.1	108	25	26.5	106	2	80-118/13
594-20-7	2,2-Dichloropropane	ND		25	31.0	124	25	28.5	114	8	74-139/17
124-48-1	Dibromochloromethane	ND		25	25.6	102	25	25.2	101	2	78-122/19
75-71-8	Dichlorodifluoromethane	ND		25	22.4	90	25	23.2	93	4	42-167/19
156-59-2	cis-1,2-Dichloroethylene	ND		25	28.6	114	25	29.6	118	3	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.6	102	25	23.3	93	9	75-118/23
541-73-1	m-Dichlorobenzene	ND		25	26.4	106	25	26.8	107	2	84-125/14
95-50-1	o-Dichlorobenzene	ND		25	26.7	107	25	27.5	110	3	82-124/14
106-46-7	p-Dichlorobenzene	ND		25	23.5	94	25	23.7	95	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	29.3	117	25	27.5	110	6	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Compound	FA15149-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	26.5	106	25	25.6	102	3	80-120/22
100-41-4	Ethylbenzene	ND		25	27.3	109	25	25.6	102	6	81-121/14
591-78-6	2-Hexanone	ND		125	110	88	125	109	87	1	61-129/18
87-68-3	Hexachlorobutadiene	ND		25	24.7	99	25	25.5	102	3	75-142/19
98-82-8	Isopropylbenzene	ND		25	29.5	118	25	27.6	110	7	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	25.4	102	25	25.4	102	0	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		125	144	115	125	144	115	0	66-122/16
74-83-9	Methyl bromide	ND		25	20.7	83	25	20.3	81	2	59-143/19
74-87-3	Methyl chloride	ND		25	23.1	92	25	23.1	92	0	50-159/19
74-95-3	Methylene bromide	ND		25	27.8	111	25	28.3	113	2	78-119/14
75-09-2	Methylene chloride	ND		25	31.4	126	25	30.0	120	5	69-135/16
78-93-3	Methyl ethyl ketone	ND		125	108	86	125	112	90	4	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		25	26.5	106	25	26.7	107	1	72-117/14
91-20-3	Naphthalene	ND		25	20.3	81	25	22.4	90	10	63-132/25
103-65-1	n-Propylbenzene	ND		25	27.4	110	25	27.3	109	0	82-133/15
100-42-5	Styrene	ND		25	26.2	105	25	25.1	100	4	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	27.0	108	25	25.8	103	5	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		25	27.9	112	25	26.5	106	5	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.2	97	25	26.0	104	7	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		25	27.3	109	25	26.9	108	1	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	22.2	89	25	23.3	93	5	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		25	23.9	96	25	25.7	103	7	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	20.1	80	25	22.1	88	9	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		25	23.6	94	25	23.8	95	1	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		25	25.2	101	25	24.8	99	2	79-120/19
127-18-4	Tetrachloroethylene	ND		25	29.0	116	25	27.3	109	6	76-135/16
108-88-3	Toluene	ND		25	26.5	106	25	25.1	100	5	80-120/14
79-01-6	Trichloroethylene	ND		25	28.1	112	25	26.5	106	6	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	37.7	151	25	35.7	143	5	71-156/21
75-01-4	Vinyl chloride	ND		25	22.9	92	25	22.7	91	1	69-159/18
108-05-4	Vinyl Acetate	ND		125	158	126	125	155	124	2	43-154/14
	m,p-Xylene	ND		50	60.7	121	50	54.7	109	10	79-126/15
95-47-6	o-Xylene	ND		25	27.8	111	25	26.2	105	6	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15149-1MS	M74745.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1MSD	M74746.D	1	05/30/14	RB	n/a	n/a	VM3156
FA15149-1	M74734.D	1	05/30/14	RB	n/a	n/a	VM3156

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-4

CAS No.	Surrogate Recoveries	MS	MSD	FA15149-1	Limits
1868-53-7	Dibromofluoromethane	101%	102%	105%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	106%	107%	79-125%
2037-26-5	Toluene-D8	94%	93%	102%	85-112%
460-00-4	4-Bromofluorobenzene	87%	93%	95%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15250-1MS	O24281.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1MSD	O24282.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1	O24263.D	50	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	FA15250-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		6250	4420	71	6250	4620	74	4	50-147/21
107-02-8	Acrolein	ND		6250	8310	133	6250	8170	131	2	31-154/29
107-13-1	Acrylonitrile	ND		6250	6780	108	6250	7030	112	4	58-126/16
71-43-2	Benzene	ND		1250	1340	107	1250	1340	107	0	81-122/14
108-86-1	Bromobenzene	ND		1250	1390	111	1250	1350	108	3	80-121/14
74-97-5	Bromochloromethane	ND		1250	1280	102	1250	1310	105	2	76-123/14
75-27-4	Bromodichloromethane	ND		1250	1290	103	1250	1290	103	0	79-123/19
75-25-2	Bromoform	ND		1250	1070	86	1250	1090	87	2	66-123/21
104-51-8	n-Butylbenzene	ND		1250	1270	102	1250	1230	98	3	79-126/16
135-98-8	sec-Butylbenzene	ND		1250	1440	115	1250	1400	112	3	83-133/16
98-06-6	tert-Butylbenzene	ND		1250	1430	114	1250	1380	110	4	80-133/16
108-90-7	Chlorobenzene	ND		1250	1450	116	1250	1440	115	1	82-124/14
75-00-3	Chloroethane	ND		1250	1380	110	1250	1380	110	0	62-144/20
67-66-3	Chloroform	ND		1250	1390	111	1250	1380	110	1	80-124/15
95-49-8	o-Chlorotoluene	ND		1250	1480	118	1250	1440	115	3	81-127/15
106-43-4	p-Chlorotoluene	ND		1250	1440	115	1250	1420	114	1	83-130/15
110-75-8	2-Chloroethyl vinyl ether	ND		6250	1030	16*	6250	943	15*	9	56-122/23
75-15-0	Carbon disulfide	ND		1250	1240	99	1250	1220	98	2	66-148/23
56-23-5	Carbon tetrachloride	ND		1250	1420	114	1250	1420	114	0	76-136/23
75-34-3	1,1-Dichloroethane	ND		1250	1410	113	1250	1410	113	0	81-122/15
75-35-4	1,1-Dichloroethylene	ND		1250	1600	128	1250	1590	127	1	78-137/18
563-58-6	1,1-Dichloropropene	ND		1250	1480	118	1250	1460	117	1	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		1250	1150	92	1250	1160	93	1	64-123/18
106-93-4	1,2-Dibromoethane	ND		1250	1270	102	1250	1270	102	0	75-120/13
107-06-2	1,2-Dichloroethane	ND		1250	1400	112	1250	1400	112	0	75-125/14
78-87-5	1,2-Dichloropropane	ND		1250	1320	106	1250	1320	106	0	76-124/14
142-28-9	1,3-Dichloropropane	ND		1250	1260	101	1250	1270	102	1	80-118/13
594-20-7	2,2-Dichloropropane	ND		1250	1190	95	1250	1170	94	2	74-139/17
124-48-1	Dibromochloromethane	ND		1250	1210	97	1250	1200	96	1	78-122/19
75-71-8	Dichlorodifluoromethane	ND		1250	1600	128	1250	1550	124	3	42-167/19
156-59-2	cis-1,2-Dichloroethylene	59.6		1250	1380	106	1250	1390	106	1	78-120/15
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1190	95	1250	1180	94	1	75-118/23
541-73-1	m-Dichlorobenzene	ND		1250	1470	118	1250	1440	115	2	84-125/14
95-50-1	o-Dichlorobenzene	ND		1250	1450	116	1250	1430	114	1	82-124/14
106-46-7	p-Dichlorobenzene	ND		1250	1320	106	1250	1290	103	2	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		1250	1450	116	1250	1440	115	1	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15250-1MS	O24281.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1MSD	O24282.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1	O24263.D	50	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Compound	FA15250-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1300	104	1250	1290	103	1	80-120/22
100-41-4	Ethylbenzene	ND		1250	1380	110	1250	1360	109	1	81-121/14
591-78-6	2-Hexanone	ND		6250	6180	99	6250	6400	102	3	61-129/18
87-68-3	Hexachlorobutadiene	ND		1250	1400	112	1250	1380	110	1	75-142/19
98-82-8	Isopropylbenzene	ND		1250	1420	114	1250	1390	111	2	83-132/15
99-87-6	p-Isopropyltoluene	ND		1250	1420	114	1250	1370	110	4	79-130/16
108-10-1	4-Methyl-2-pentanone	ND		6250	6480	104	6250	6660	107	3	66-122/16
74-83-9	Methyl bromide	ND		1250	1380	110	1250	1400	112	1	59-143/19
74-87-3	Methyl chloride	ND		1250	1580	126	1250	1550	124	2	50-159/19
74-95-3	Methylene bromide	ND		1250	1280	102	1250	1280	102	0	78-119/14
75-09-2	Methylene chloride	ND		1250	1590	127	1250	1590	127	0	69-135/16
78-93-3	Methyl ethyl ketone	ND		6250	4870	78	6250	5070	81	4	56-143/18
1634-04-4	Methyl Tert Butyl Ether	ND		1250	1260	101	1250	1290	103	2	72-117/14
91-20-3	Naphthalene	ND		1250	1210	97	1250	1270	102	5	63-132/25
103-65-1	n-Propylbenzene	ND		1250	1520	122	1250	1480	118	3	82-133/15
100-42-5	Styrene	ND		1250	1250	100	1250	1250	100	0	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	ND		1250	1290	103	1250	1290	103	0	77-122/19
71-55-6	1,1,1-Trichloroethane	ND		1250	1470	118	1250	1470	118	0	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1260	101	1250	1270	102	1	72-120/14
79-00-5	1,1,2-Trichloroethane	ND		1250	1260	101	1250	1270	102	1	76-119/14
87-61-6	1,2,3-Trichlorobenzene	ND		1250	1260	101	1250	1300	104	3	68-131/25
96-18-4	1,2,3-Trichloropropane	ND		1250	1320	106	1250	1310	105	1	77-120/16
120-82-1	1,2,4-Trichlorobenzene	ND		1250	1270	102	1250	1270	102	0	73-129/20
95-63-6	1,2,4-Trimethylbenzene	ND		1250	1280	102	1250	1240	99	3	79-120/18
108-67-8	1,3,5-Trimethylbenzene	ND		1250	1290	103	1250	1250	100	3	79-120/19
127-18-4	Tetrachloroethylene	99.7		1250	1360	101	1250	1360	101	0	76-135/16
108-88-3	Toluene	ND		1250	1340	107	1250	1330	106	1	80-120/14
79-01-6	Trichloroethylene	3030		1250	4330	104	1250	4300	102	1	81-126/15
75-69-4	Trichlorofluoromethane	ND		1250	1450	116	1250	1440	115	1	71-156/21
75-01-4	Vinyl chloride	ND		1250	1320	106	1250	1310	105	1	69-159/18
108-05-4	Vinyl Acetate	ND		6250	8450	135	6250	8560	137	1	43-154/14
	m,p-Xylene	ND		2500	2840	114	2500	2800	112	1	79-126/15
95-47-6	o-Xylene	ND		1250	1420	114	1250	1410	113	1	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15250-1MS	O24281.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1MSD	O24282.D	50	05/31/14	MM	n/a	n/a	VO941
FA15250-1	O24263.D	50	05/31/14	MM	n/a	n/a	VO941

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-1, FA15250-2, FA15250-3, FA15250-5

CAS No.	Surrogate Recoveries	MS	MSD	FA15250-1	Limits
1868-53-7	Dibromofluoromethane	103%	104%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	104%	103%	79-125%
2037-26-5	Toluene-D8	99%	99%	99%	85-112%
460-00-4	4-Bromofluorobenzene	100%	100%	100%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15250
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15234-8MS	O24309.D	10	06/02/14	MM	n/a	n/a	VO942
FA15234-8MSD	O24310.D	10	06/02/14	MM	n/a	n/a	VO942
FA15234-8	O24300.D	1	06/02/14	MM	n/a	n/a	VO942
FA15234-8	O24298.D	10	06/02/14	MM	n/a	n/a	VO942

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15250-2

CAS No.	Compound	FA15234-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-01-6	Trichloroethylene	1.0	U	250	308	123	250	294	118	5	81-126/15

CAS No.	Surrogate Recoveries	MS	MSD	FA15234-8	FA15234-8	Limits
1868-53-7	Dibromofluoromethane	104%	104%	100%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	106%	104%	104%	79-125%
2037-26-5	Toluene-D8	98%	99%	98%	99%	85-112%
460-00-4	4-Bromofluorobenzene	99%	99%	100%	100%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	2	2.3	1.9	<6.0
Arsenic	10	2	2.4		
Barium	200	1	1		
Beryllium	4.0	.5	.5	0.0	<4.0
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1	2		
Cobalt	50	.5	.5		
Copper	25	1	1	0.30	<25
Iron	300	17	17	2.6	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	50	56		
Manganese	15	.5	1	0.0	<15
Molybdenum	50	.5	.5		
Nickel	40	.5	.5	-0.10	<40
Potassium	10000	200	200		
Selenium	10	2.3	2.3		
Silver	10	.65	.77		
Sodium	10000	500	500		
Strontium	10	.4	.4		
Thallium	10	1.5	2	-1.0	<10
Tin	50	.7	1		
Titanium	10	.9	1		
Vanadium	50	.5	.5		
Zinc	20	3	3	3.2	<20

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			05/28/14					05/28/14	
Metal	FA15195-1 Original	DUP	RPD	QC Limits	FA15195-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony	0.0	0.0	NC	0-20	0.0	529	500	105.8	80-120
Arsenic	anr								
Barium									
Beryllium	0.0	0.0	NC	0-20	0.0	55.3	50	110.6	80-120
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	1.2	1.3	8.0	0-20	1.2	287	250	114.3	80-120
Iron	5910	5760	2.6	0-20	5910	34400	26000	109.6	80-120
Lead	anr								
Magnesium									
Manganese	554	552	0.4	0-20	554	1110	500	111.2	80-120
Molybdenum									
Nickel	5.6	5.5	1.8	0-20	5.6	550	500	108.9	80-120
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	2100	2000	105.0	80-120
Tin									
Titanium									
Vanadium									
Zinc	16.5	19.3	15.6	0-20	16.5	529	500	102.5	80-120

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	526	500	105.2	0.6	20
Arsenic	anr					
Barium						
Beryllium	0.0	54.8	50	109.6	0.9	20
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	1.2	280	250	111.5	2.5	20
Iron	5910	33900	26000	107.7	1.5	20
Lead	anr					
Magnesium						
Manganese	554	1100	500	109.2	0.9	20
Molybdenum						
Nickel	5.6	547	500	108.3	0.5	20
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	0.0	2080	2000	104.0	1.0	20
Tin						
Titanium						
Vanadium						
Zinc	16.5	526	500	101.9	0.6	20

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony	529	500	105.8	80-120
Arsenic	anr			
Barium				
Beryllium	54.9	50	109.8	80-120
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	283	250	113.2	80-120
Iron	28300	26000	108.8	80-120
Lead	anr			
Magnesium				
Manganese	557	500	111.4	80-120
Molybdenum				
Nickel	546	500	109.2	80-120
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	2070	2000	103.5	80-120
Tin				
Titanium				
Vanadium				
Zinc	517	500	103.4	80-120

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	FA15195-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic	anr			
Barium				
Beryllium	0.00	0.00	NC	0-10
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	1.20	0.00	100.0(a)	0-10
Iron	5910	5600	5.3	0-10
Lead	anr			
Magnesium				
Manganese	554	528	4.6	0-10
Molybdenum				
Nickel	5.60	5.00	10.7 (a)	0-10
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium				
Zinc	16.5	16.0	3.0	0-10

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

QC Batch ID: MP27307
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/28/14

Metal	Sample ml	Final ml	FA15195-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			108	0.2	5	100	108.0	80-120
Arsenic										
Barium										
Beryllium	9.8	10			55.8	0.2	2.5	50	111.6	80-120
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper	9.8	10	1.2	1.176	115.7	0.2	5	100	114.5	80-120
Iron	9.8	10	5910	5791.8	8987	0.2	150	3000	106.5	80-120
Lead										
Magnesium										
Manganese	9.8	10	553.6	542.528	592.8	0.2	2.5	50	100.5	80-120
Molybdenum										
Nickel	9.8	10	5.6	5.488	118.7	0.2	5	100	113.2	80-120
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium	9.8	10			106.1	0.2	5	100	106.1	80-120
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	16.5	16.17	295.3	0.2	12.5	250	111.7	80-120

Associated samples MP27307: FA15250-1, FA15250-2, FA15250-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate	GP24058/GN61585	0.10	0.0	mg/l	2.5	2.44	97.6	90-110%
Nitrogen, Nitrite	GP24058/GN61585	0.10	0.0	mg/l	2.5	2.63	105.2	90-110%
Sulfate	GP24058/GN61585	2.0	0.0	mg/l	50	50.5	101.0	90-110%
Sulfite	GN61564	3.0	0.0	mg/l	34.5	34.0	98.6	80-120%
Total Organic Carbon	GP24081/GN61655	1.0	0.0	mg/l	15	16.1	107.3	90-110%

Associated Samples:
Batch GN61564: FA15250-1, FA15250-2
Batch GP24058: FA15250-1, FA15250-2
Batch GP24081: FA15250-1, FA15250-2, FA15250-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Total Organic Carbon	GP24081/GN61655	FA15381-1	mg/l	1.4	1.4	0.0	0-20%

Associated Samples:
Batch GP24081: FA15250-1, FA15250-2, FA15250-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate	GP24058/GN61585	FA15250-1	mg/l	0.25	2.5	2.6	94.0	90-110%
Nitrogen, Nitrite	GP24058/GN61585	FA15250-1	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Sulfate	GP24058/GN61585	FA15250-1	mg/l	0.67 B	50	50.7	100.1	90-110%
Sulfite	GN61564	FA15149-1	mg/l	1.5 U	34.5	36.0	101.0	75-125%
Total Organic Carbon	GP24081/GN61655	FA15381-1	mg/l	1.4	15	17.6	108.0	90-110%

Associated Samples:
Batch GN61564: FA15250-1, FA15250-2
Batch GP24058: FA15250-1, FA15250-2
Batch GP24081: FA15250-1, FA15250-2, FA15250-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA15250
Account: ERMNCR - ERM
Project: ECI; 100 Rego Dr, Elon, NC

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrate	GP24058/GN61585	FA15250-1	mg/l	0.25	2.5	2.7	3.8	20%
Nitrogen, Nitrite	GP24058/GN61585	FA15250-1	mg/l	0.050 U	2.5	2.5	0.0	20%
Sulfate	GP24058/GN61585	FA15250-1	mg/l	0.67 B	50	51.6	1.8	20%
Sulfite	GN61564	FA15149-1	mg/l	1.5 U	34.5mg/l	35.0	2.8	

Associated Samples:
Batch GN61564: FA15250-1, FA15250-2
Batch GP24058: FA15250-1, FA15250-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Southeast ACCUTEST LABORATORIES

08/12/14

Technical Report for

ERM

ECI; 100 Rego Dr, Elon, NC

0235393

Accutest Job Number: FA15824

Sampling Date: 06/12/14

Report to:

ERM

Robert.Laumann@erm.com

ATTN: Robert Laumann

Total number of pages in report: **31**

NELAP ACCREDITED TNI LABORATORY

Norm Farmer
Technical Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Jean Dent-Smith 407-425-6700

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Accutest LabLink@153230 14:28 12-Aug-2014

Sample Summary

ERM

Job No: FA15824

ECI; 100 Rego Dr, Elon, NC
Project No: 0235393

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA15824-1	06/12/14	14:15	TN	06/14/14	AQ	Ground Water	DW-2
FA15824-2	06/12/14	16:00	TN	06/14/14	AQ	Ground Water	DW-3
FA15824-3	06/12/14	18:45	TN	06/14/14	AQ	Ground Water	DW-4
FA15824-4	06/12/14	00:00	TN	06/14/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: FA15824
Account: ERM
Project: ECI; 100 Rego Dr, Elon, NC
Collected: 06/12/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA15824-1	**DW-2**					
Ethylbenzene		1.1	1.0	0.28	ug/l	SW846 8260B
Methyl ethyl ketone		4.2 J	5.0	1.5	ug/l	SW846 8260B
Tetrachloroethylene		0.53 J	1.0	0.26	ug/l	SW846 8260B
Toluene		0.24 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		50.9	1.0	0.30	ug/l	SW846 8260B
m,p-Xylene		3.0	2.0	0.48	ug/l	SW846 8260B
o-Xylene		1.7	1.0	0.20	ug/l	SW846 8260B
Total TIC, Volatile		88 J			ug/l	
FA15824-2	**DW-3**					
No hits reported in this sample.						
FA15824-3	**DW-4**					
Carbon disulfide		0.81 J	2.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.54 J	1.0	0.28	ug/l	SW846 8260B
Trichloroethylene		9.8	1.0	0.30	ug/l	SW846 8260B
m,p-Xylene		1.2 J	2.0	0.48	ug/l	SW846 8260B
o-Xylene		0.88 J	1.0	0.20	ug/l	SW846 8260B
FA15824-4	**TRIP BLANK**					
No hits reported in this sample.						

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15824-1	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I21774.D	1	06/20/14	DP	n/a	n/a	VI430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15824-1	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	1.1	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	4.2	5.0	1.5	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.53	1.0	0.26	ug/l	J
108-88-3	Toluene	0.24	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	50.9	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate [a]	ND	10	2.0	ug/l	
	m,p-Xylene	3.0	2.0	0.48	ug/l	
95-47-6	o-Xylene	1.7	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-2		
Lab Sample ID:	FA15824-1	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
625-55-8	Formic acid, 1-methylethyl ester	4.77	88	ug/l	JN
	Total TIC, Volatile		88	ug/l	J

(a) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15824-2	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I21775.D	1	06/20/14	DP	n/a	n/a	VI430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15824-2	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate [a]	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-3		
Lab Sample ID:	FA15824-2	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15824-3	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I21776.D	1	06/20/14	DP	n/a	n/a	VI430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.81	2.0	0.20	ug/l	J
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15824-3	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.54	1.0	0.28	ug/l	J
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	9.8	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate [a]	ND	10	2.0	ug/l	
	m,p-Xylene	1.2	2.0	0.48	ug/l	J
95-47-6	o-Xylene	0.88	1.0	0.20	ug/l	J

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DW-4		
Lab Sample ID:	FA15824-3	**Date Sampled:**	06/12/14
Matrix:	AQ - Ground Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15824-4	**Date Sampled:**	06/12/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I21764.D	1	06/20/14	DP	n/a	n/a	VI430
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15824-4	**Date Sampled:**	06/12/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate [a]	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA15824-4	**Date Sampled:**	06/12/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/14/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ECI; 100 Rego Dr, Elon, NC		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated BS recovery outside control limits.
(b) No TICs detected.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA15824 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: ERM
Address: 1130 SITUS COURT STE 250
City: RALEIGH State: NC Zip: 27606
Project Contact: LANE DORMAN E-mail: LANE.DORMAN@ERM.COM
Phone#: 919-233-4501
Sampler(s) Name(s) (Printed): TOM NAUMANN

Project Information

Project Name: ELI
Street: 100 REGO DRIVE
City: ELON State: NC
Project #: 0235393
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	VOC'S
1	DW-2	6/12/14	1415	TEN	GW	3			X							3
2	DW-3	6/12/14	1600	TEN	GW	3			X							3
3	DW-4	6/12/14	1045	TEN	GW	3			X							3
4	TRIP BLANK					2			X							2

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

RALEIGH, NC

SVC CENTER

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Tom Naumann	6/13/14 1300	2 [signature]	3 [signature]	6/13/14 1730	4 FX
Relinquished by: 5 FX	Date Time: 6-14-14	Received By: 6 J. Cooper (AAHC)	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 2.6

FA15824: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 15824 CLIENT: ERM PROJECT: EC1

DATE/TIME RECEIVED: 6-14-14 10:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7703 0154 9689

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK 2
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.2
- [ ] CORRECTED TEMPS: 2.6

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 6-14-14 REVIEWER SIGNATURE/DATE

RS 04/14

receipt confirmation 041514.xls

4.1

4

FA15824: Chain of Custody
Page 2 of 3

From: (919) 208-7171
Brent Rader
Accutest Labs Southeast
6308 - C Angus Drive

Raleigh, NC 27617

Origin ID: RZZA

FedEx Express

J14101402070326

Ship Date: 13JUN14
ActWgt: 15.0 LB
CAD: 9855222/INET3490

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (407) 425-6700
BILL SENDER

Sample Receiving
Accutest SE
4405 VINELAND RD.
STE. C15
ORLANDO, FL 32811

3 of 3

SATURDAY 12:00P
PRIORITY OVERNIGHT

MPS# 7703 0155 0086
0263
Mstr# 7703 0154 9689
0201

X0 TIXA

32811
FL-US
MCO

522G5/BC4/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-MB	I21762.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	11	ug/l	
107-02-8	Acrolein	ND	20	6.4	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.26	ug/l	
75-25-2	Bromoform	ND	1.0	0.38	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.27	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.31	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.23	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.25	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.78	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.24	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.24	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.34	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.36	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.29	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.34	ug/l	

Method Blank Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-MB	I21762.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.54	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.53	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.29	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	1.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.24	ug/l	
100-42-5	Styrene	ND	1.0	0.23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.34	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.57	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.26	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-MB	I21762.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-BS	I21760.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	194	155*	50-147
107-02-8	Acrolein	125	158	126	31-154
107-13-1	Acrylonitrile	125	121	97	58-126
71-43-2	Benzene	25	26.6	106	81-122
108-86-1	Bromobenzene	25	25.0	100	80-121
74-97-5	Bromochloromethane	25	25.8	103	76-123
75-27-4	Bromodichloromethane	25	25.6	102	79-123
75-25-2	Bromoform	25	24.5	98	66-123
104-51-8	n-Butylbenzene	25	26.4	106	79-126
135-98-8	sec-Butylbenzene	25	29.5	118	83-133
98-06-6	tert-Butylbenzene	25	28.0	112	80-133
108-90-7	Chlorobenzene	25	27.5	110	82-124
75-00-3	Chloroethane	25	29.3	117	62-144
67-66-3	Chloroform	25	25.7	103	80-124
95-49-8	o-Chlorotoluene	25	27.4	110	81-127
106-43-4	p-Chlorotoluene	25	28.6	114	83-130
110-75-8	2-Chloroethyl vinyl ether	125	115	92	56-122
75-15-0	Carbon disulfide	25	28.1	112	66-148
56-23-5	Carbon tetrachloride	25	27.0	108	76-136
75-34-3	1,1-Dichloroethane	25	26.9	108	81-122
75-35-4	1,1-Dichloroethylene	25	29.2	117	78-137
563-58-6	1,1-Dichloropropene	25	29.0	116	79-131
96-12-8	1,2-Dibromo-3-chloropropane	25	23.8	95	64-123
106-93-4	1,2-Dibromoethane	25	24.9	100	75-120
107-06-2	1,2-Dichloroethane	25	24.9	100	75-125
78-87-5	1,2-Dichloropropane	25	25.8	103	76-124
142-28-9	1,3-Dichloropropane	25	24.7	99	80-118
594-20-7	2,2-Dichloropropane	25	28.4	114	74-139
124-48-1	Dibromochloromethane	25	24.8	99	78-122
75-71-8	Dichlorodifluoromethane	25	23.4	94	42-167
156-59-2	cis-1,2-Dichloroethylene	25	26.3	105	78-120
10061-01-5	cis-1,3-Dichloropropene	25	25.4	102	75-118
541-73-1	m-Dichlorobenzene	25	28.4	114	84-125
95-50-1	o-Dichlorobenzene	25	27.8	111	82-124
106-46-7	p-Dichlorobenzene	25	25.1	100	78-120
156-60-5	trans-1,2-Dichloroethylene	25	27.2	109	76-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-BS	I21760.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	27.2	109	80-120
100-41-4	Ethylbenzene	25	26.6	106	81-121
591-78-6	2-Hexanone	125	150	120	61-129
87-68-3	Hexachlorobutadiene	25	28.9	116	75-142
98-82-8	Isopropylbenzene	25	29.3	117	83-132
99-87-6	p-Isopropyltoluene	25	29.1	116	79-130
108-10-1	4-Methyl-2-pentanone	125	123	98	66-122
74-83-9	Methyl bromide	25	27.0	108	59-143
74-87-3	Methyl chloride	25	27.8	111	50-159
74-95-3	Methylene bromide	25	25.2	101	78-119
75-09-2	Methylene chloride	25	25.2	101	69-135
78-93-3	Methyl ethyl ketone	125	142	114	56-143
1634-04-4	Methyl Tert Butyl Ether	25	24.8	99	72-117
91-20-3	Naphthalene	25	25.3	101	63-132
103-65-1	n-Propylbenzene	25	29.9	120	82-133
100-42-5	Styrene	25	26.1	104	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	25.7	103	77-122
71-55-6	1,1,1-Trichloroethane	25	26.9	108	75-130
79-34-5	1,1,2,2-Tetrachloroethane	25	25.0	100	72-120
79-00-5	1,1,2-Trichloroethane	25	24.6	98	76-119
87-61-6	1,2,3-Trichlorobenzene	25	26.5	106	68-131
96-18-4	1,2,3-Trichloropropane	25	26.1	104	77-120
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	73-129
95-63-6	1,2,4-Trimethylbenzene	25	26.0	104	79-120
108-67-8	1,3,5-Trimethylbenzene	25	25.3	101	79-120
127-18-4	Tetrachloroethylene	25	27.0	108	76-135
108-88-3	Toluene	25	25.4	102	80-120
79-01-6	Trichloroethylene	25	26.9	108	81-126
75-69-4	Trichlorofluoromethane	25	27.5	110	71-156
75-01-4	Vinyl chloride	25	28.0	112	69-159
108-05-4	Vinyl Acetate	125	198	158*	43-154
	m,p-Xylene	50	55.0	110	79-126
95-47-6	o-Xylene	25	28.4	114	80-127

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI430-BS	I21760.D	1	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15882-1MS	I21783.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1MSD	I21784.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1	I21780.D	10	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	FA15882-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	250 U		125	117	94	125	123	98	5	50-147/21
107-02-8	Acrolein	200 U		125	117	94	125	103	82	13	31-154/29
107-13-1	Acrylonitrile	100 U		125	128	102	125	131	105	2	58-126/16
71-43-2	Benzene	10 U		25	26.1	104	25	25.3	101	3	81-122/14
108-86-1	Bromobenzene	10 U		25	24.3	97	25	24.0	96	1	80-121/14
74-97-5	Bromochloromethane	10 U		25	25.3	101	25	25.1	100	1	76-123/14
75-27-4	Bromodichloromethane	10 U		25	25.6	102	25	24.1	96	6	79-123/19
75-25-2	Bromoform	10 U		25	24.5	98	25	22.3	89	9	66-123/21
104-51-8	n-Butylbenzene	10 U		25	25.6	102	25	24.8	99	3	79-126/16
135-98-8	sec-Butylbenzene	10 U		25	29.1	116	25	28.2	113	3	83-133/16
98-06-6	tert-Butylbenzene	10 U		25	28.3	113	25	26.8	107	5	80-133/16
108-90-7	Chlorobenzene	10 U		25	27.3	109	25	26.2	105	4	82-124/14
75-00-3	Chloroethane	20 U		25	31.9	128	25	32.9	132	3	62-144/20
67-66-3	Chloroform	10 U		25	25.9	104	25	25.9	104	0	80-124/15
95-49-8	o-Chlorotoluene	10 U		25	26.6	106	25	25.6	102	4	81-127/15
106-43-4	p-Chlorotoluene	10 U		25	27.2	109	25	26.3	105	3	83-130/15
110-75-8	2-Chloroethyl vinyl ether	50 U		125	ND	0*	125	ND	0*	nc	56-122/23
75-15-0	Carbon disulfide	20 U		25	27.6	110	25	24.4	98	12	66-148/23
56-23-5	Carbon tetrachloride	10 U		25	26.4	106	25	24.4	98	8	76-136/23
75-34-3	1,1-Dichloroethane	1090	L	25	1360	1080* [a]	25	1330	960* [a]	2	81-122/15
75-35-4	1,1-Dichloroethylene	87.1		25	135	192* [a]	25	128	164* [a]	5	78-137/18
563-58-6	1,1-Dichloropropene	10 U		25	28.3	113	25	27.0	108	5	79-131/16
96-12-8	1,2-Dibromo-3-chloropropane	20 U		25	26.8	107	25	27.1	108	1	64-123/18
106-93-4	1,2-Dibromoethane	10 U		25	26.0	104	25	25.4	102	2	75-120/13
107-06-2	1,2-Dichloroethane	10 U		25	25.7	103	25	25.2	101	2	75-125/14
78-87-5	1,2-Dichloropropane	10 U		25	25.0	100	25	24.7	99	1	76-124/14
142-28-9	1,3-Dichloropropane	10 U		25	25.0	100	25	24.6	98	2	80-118/13
594-20-7	2,2-Dichloropropane	10 U		25	23.7	95	25	23.2	93	2	74-139/17
124-48-1	Dibromochloromethane	10 U		25	24.6	98	25	22.5	90	9	78-122/19
75-71-8	Dichlorodifluoromethane	20 U		25	22.2	89	25	23.6	94	6	42-167/19
156-59-2	cis-1,2-Dichloroethylene	10 U		25	25.4	102	25	25.6	102	1	78-120/15
10061-01-5	cis-1,3-Dichloropropene	10 U		25	22.7	91	25	19.5	78	15	75-118/23
541-73-1	m-Dichlorobenzene	10 U		25	28.0	112	25	26.7	107	5	84-125/14
95-50-1	o-Dichlorobenzene	10 U		25	27.7	111	25	26.7	107	4	82-124/14
106-46-7	p-Dichlorobenzene	10 U		25	24.6	98	25	24.2	97	2	78-120/15
156-60-5	trans-1,2-Dichloroethylene	10 U		25	26.6	106	25	25.8	103	3	76-127/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15882-1MS	I21783.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1MSD	I21784.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1	I21780.D	10	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Compound	FA15882-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	10 U		25	25.2	101	25	21.3	85	17	80-120/22
100-41-4	Ethylbenzene	10 U		25	26.5	106	25	25.4	102	4	81-121/14
591-78-6	2-Hexanone	100 U		125	133	106	125	139	111	4	61-129/18
87-68-3	Hexachlorobutadiene	20 U		25	28.1	112	25	27.8	111	1	75-142/19
98-82-8	Isopropylbenzene	10 U		25	28.9	116	25	27.9	112	4	83-132/15
99-87-6	p-Isopropyltoluene	10 U		25	28.2	113	25	27.1	108	4	79-130/16
108-10-1	4-Methyl-2-pentanone	50 U		125	139	111	125	143	114	3	66-122/16
74-83-9	Methyl bromide	20 U		25	21.7	87	25	22.5	90	4	59-143/19
74-87-3	Methyl chloride	20 U		25	22.7	91	25	22.0	88	3	50-159/19
74-95-3	Methylene bromide	20 U		25	25.7	103	25	26.0	104	1	78-119/14
75-09-2	Methylene chloride	50 U		25	25.6	102	25	25.1	100	2	69-135/16
78-93-3	Methyl ethyl ketone	50 U		125	121	97	125	128	102	6	56-143/18
1634-04-4	Methyl Tert Butyl Ether	10 U		25	25.1	100	25	25.4	102	1	72-117/14
91-20-3	Naphthalene	50 U		25	28.2	113	25	28.8	115	2	63-132/25
103-65-1	n-Propylbenzene	10 U		25	28.6	114	25	27.3	109	5	82-133/15
100-42-5	Styrene	10 U		25	18.9	76*	25	15.6	62*	19	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	10 U		25	24.6	98	25	24.2	97	2	77-122/19
71-55-6	1,1,1-Trichloroethane	82.3		25	130	191* [a]	25	127	179* [a]	2	75-130/16
79-34-5	1,1,2,2-Tetrachloroethane	10 U		25	27.3	109	25	27.2	109	0	72-120/14
79-00-5	1,1,2-Trichloroethane	10 U		25	25.4	102	25	24.5	98	4	76-119/14
87-61-6	1,2,3-Trichlorobenzene	10 U		25	27.3	109	25	27.8	111	2	68-131/25
96-18-4	1,2,3-Trichloropropane	20 U		25	26.6	106	25	27.3	109	3	77-120/16
120-82-1	1,2,4-Trichlorobenzene	10 U		25	26.4	106	25	25.8	103	2	73-129/20
95-63-6	1,2,4-Trimethylbenzene	20 U		25	25.8	103	25	24.4	98	6	79-120/18
108-67-8	1,3,5-Trimethylbenzene	20 U		25	24.3	97	25	23.5	94	3	79-120/19
127-18-4	Tetrachloroethylene	10 U		25	26.6	106	25	25.0	100	6	76-135/16
108-88-3	Toluene	3.5	I	25	29.3	103	25	27.8	97	5	80-120/14
79-01-6	Trichloroethylene	10 U		25	26.4	106	25	25.6	102	3	81-126/15
75-69-4	Trichlorofluoromethane	20 U		25	25.4	102	25	26.4	106	4	71-156/21
75-01-4	Vinyl chloride	4.6	I	25	28.5	96	25	29.9	101	5	69-159/18
108-05-4	Vinyl Acetate	100 U		125	206	165*	125	201	161*	2	43-154/14
	m,p-Xylene	20 U		50	55.3	111	50	53.1	106	4	79-126/15
95-47-6	o-Xylene	10 U		25	27.9	112	25	26.9	108	4	80-127/14

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA15824
Account: ERMNCR ERM
Project: ECI; 100 Rego Dr, Elon, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA15882-1MS	I21783.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1MSD	I21784.D	1	06/20/14	DP	n/a	n/a	VI430
FA15882-1	I21780.D	10	06/20/14	DP	n/a	n/a	VI430

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA15824-1, FA15824-2, FA15824-3, FA15824-4

CAS No.	Surrogate Recoveries	MS	MSD	FA15882-1	Limits
1868-53-7	Dibromofluoromethane	103%	105%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	105%	103%	79-125%
2037-26-5	Toluene-D8	96%	97%	101%	85-112%
460-00-4	4-Bromofluorobenzene	95%	95%	98%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

ERM NC, Inc.
Ballantyne One
15720 Brixham Hill Avenue, Suite 120
Charlotte, NC 28277
Attention: Ed Hollifield

Project Name: **ECI**

Project Number: **235393-104-03**

Lot Number: **PJ17072**

Date Completed: **10/28/2014**

Kelly M. Maberry
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* P J 1 7 0 7 2 *

Case Narrative
ERM NC, Inc.
Lot Number: PJ17072

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
ERM NC, Inc.
Lot Number: PJ17072

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DW-1	Aqueous	10/16/2014 1055	10/17/2014
002	DW-2	Aqueous	10/16/2014 1240	10/17/2014
003	DW-2D	Aqueous	10/16/2014 1140	10/17/2014
004	DW-4	Aqueous	10/16/2014 1325	10/17/2014
005	Trip Blank	Aqueous	10/16/2014	10/17/2014

(5 samples)

Executive Summary

ERM NC, Inc.

Lot Number: PJ17072

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DW-1	Aqueous	Chloroform	8260B	0.70	J	ug/L	6
001	DW-1	Aqueous	cis-1,2-Dichloroethene	8260B	1.9		ug/L	6
001	DW-1	Aqueous	Tetrachloroethene	8260B	0.74	J	ug/L	7
001	DW-1	Aqueous	Trichloroethene	8260B	70		ug/L	7
002	DW-2	Aqueous	Tetrachloroethene	8260B	0.60	J	ug/L	10
002	DW-2	Aqueous	Trichloroethene	8260B	48		ug/L	10
002	DW-2	Aqueous	Xylenes (total)	8260B	0.58	J	ug/L	10
002	DW-2	Aqueous	m+p - Xylenes	8260B	0.58	J	ug/L	10
003	DW-2D	Aqueous	Trichloroethene	8260B	1.6		ug/L	13
004	DW-4	Aqueous	Tetrachloroethene	8260B	0.43	J	ug/L	16
004	DW-4	Aqueous	Trichloroethene	8260B	20		ug/L	16
004	DW-4	Aqueous	Xylenes (total)	8260B	1.5		ug/L	16
004	DW-4	Aqueous	m+p - Xylenes	8260B	0.85	J	ug/L	16
004	DW-4	Aqueous	o - Xylenes	8260B	0.60	J	ug/L	16

(14 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-001**
Description: **DW-1**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1055**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/18/2014 0144	JJG		58644

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-001**
Description: **DW-1**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1055**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1219	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	**67-66-3**	**8260B**	**0.70**	**J**	**1.0**	**0.33**	**ug/L**	**1**
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**1.9**		**1.0**	**0.12**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-001**
Description: **DW-1**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1055**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1219	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**0.74**	**J**	**1.0**	**0.13**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**70**		**1.0**	**0.18**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		119	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-002**
Description: **DW-2**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1240**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/18/2014 0205	JJG		58644

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-002**
Description: **DW-2**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1240**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1240	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.33	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-002**
Description: **DW-2**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1240**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1240	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**0.60**	**J**	**1.0**	**0.13**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**48**		**1.0**	**0.18**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**0.58**	**J**	**1.0**	**0.33**	**ug/L**	**1**
m+p - Xylenes	**179601-23-1**	**8260B**	**0.58**	**J**	**1.0**	**0.50**	**ug/L**	**1**
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-003**
Description: **DW-2D**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1140**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/18/2014 0227	JJG		58644

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-003**
Description: **DW-2D**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1140**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1301	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.33	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-003**
Description: **DW-2D**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1140**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1301	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**1.6**		**1.0**	**0.18**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		122	70-130
Toluene-d8		118	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-004**
Description: **DW-4**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1325**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/18/2014 0249	JJG		58644

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		120	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-004**
Description: **DW-4**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1325**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1322	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.33	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-004**
Description: **DW-4**
Matrix: **Aqueous**
Date Sampled: **10/16/2014 1325**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1322	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**0.43**	**J**	**1.0**	**0.13**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	**79-01-6**	**8260B**	**20**		**1.0**	**0.18**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**1.5**		**1.0**	**0.33**	**ug/L**	**1**
m+p - Xylenes	**179601-23-1**	**8260B**	**0.85**	**J**	**1.0**	**0.50**	**ug/L**	**1**
o - Xylenes	**95-47-6**	**8260B**	**0.60**	**J**	**1.0**	**0.50**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-005**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **10/16/2014**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1158	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.33	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **ERM NC, Inc.**
Laboratory ID: **PJ17072-005**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **10/16/2014**
Date Received: **10/17/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/24/2014 1158	EH1		59097

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 41099

Client: ERM NC, Inc	Report to Contact: Ed.Hollifield@erm.com	Telephone No. / E-mail: 704-541-8345	Quote No.: 17385
Address: 15720 Brixham Hill Ave Ste 120	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Charlotte; State: NC; Zip Code: 28277	Printed Name: Thomas Fisher		PJ17072
Project Name: ECI - Elon			
Project No.: 235393-104-03	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab G / Composite C	Matrix: Aqueous	Solid	Non-aqueous	No. of Containers by Preservative Type: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	S_2O_3 / HT	8260 VOC	1,4-Dioxane SIM	Remarks / Cooler I.D.
DW-1	10/16/14	1055	G	X						X			X	X	
DW-2	10/16/14	1240	G	X						X			X	X	
DW-2D	10/16/14	1140	G	X						X			X	X	
DW-4	10/16/14	1325	G	X						X			X	X	
Trip Blank	–	–	G	X						X			X		

Turn Around Time Required (Prior lab approval required for expedited TAT.)	Sample Disposal	Possible Hazard Identification	QC Requirements (Specify)
X Standard ☐ Rush (Specify)	☐ Return to Client X Disposal by Lab	X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by	10/16/14	1600	1. Received by	10.16.14	1600
2. Relinquished by	10.17.14	0800	2. Received by	10.17.14	0800
3. Relinquished by	10.17.14	1600	3. Received by		
4. Relinquished by			4. Laboratory received by	10/17/14	1600

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack Receipt Temp. 4-4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 15

Page 1 of 1
Replaces Date: 03/07/14
Effective Date: 07/15/14

Sample Receipt Checklist (SRC)

Client: ERM Cooler Inspected by/date: CMT / 10/17/14 Lot #: PJ17022

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
NA / 4.0 / 4.4 °C ___ / ___ / ___ °C ___ / ___ / ___ °C ___ / ___ / ___ °C
Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: #3 IR Gun Correction Factor: +0.4°C
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) using SR # _____.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)

SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR#

Sample labels applied by: CMT Verified by: _____ Date: 10/17/14

Comments:

Report of Analysis

ERM NC, Inc.
Ballantyne One
15720 Brixham Hill Avenue, Suite 120
Charlotte, NC 28277
Attention: Ed Hollifield

Project Name: ECI - Elon

Lot Number: PL12058

Date Completed: 12/20/2014

Kelly M. Nance
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* P L 1 2 0 5 8 *

Case Narrative

ERM NC, Inc.

Lot Number: PL12058

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

ERM NC, Inc.

Lot Number: PL12058

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	OB-1B	Aqueous	12/08/2014 1430	12/12/2014
002	OB-1B	Aqueous	12/10/2014 1445	12/12/2014
003	0B-2B	Aqueous	12/08/2014 1450	12/12/2014
004	0B-2B	Aqueous	12/10/2014 1505	12/12/2014
005	MW-7	Aqueous	12/08/2014 1550	12/12/2014
006	MW-7	Aqueous	12/10/2014 1425	12/12/2014
007	DW-1	Aqueous	12/08/2014 1530	12/12/2014
008	DW-1	Aqueous	12/10/2014 1405	12/12/2014
009	AS-1	Aqueous	12/08/2014 1510	12/12/2014
010	AS-1	Aqueous	12/10/2014 1530	12/12/2014

(10 samples)

Executive Summary

ERM NC, Inc.

Lot Number: PL12058

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	OB-1B	Aqueous	Trichloroethene	8260B	460		ug/L	6
002	OB-1B	Aqueous	Trichloroethene	8260B	860		ug/L	8
003	0B-2B	Aqueous	Trichloroethene	8260B	300		ug/L	10
004	0B-2B	Aqueous	Trichloroethene	8260B	2700		ug/L	12
005	MW-7	Aqueous	Trichloroethene	8260B	2700		ug/L	14
006	MW-7	Aqueous	Trichloroethene	8260B	2700		ug/L	16
007	DW-1	Aqueous	1,1,2-Trichloro-1,2,2-Trifluoroethane	8260B	5.1		ug/L	17
007	DW-1	Aqueous	Trichloroethene	8260B	94		ug/L	18
008	DW-1	Aqueous	1,1,2-Trichloro-1,2,2-Trifluoroethane	8260B	5.2		ug/L	19
008	DW-1	Aqueous	Trichloroethene	8260B	100		ug/L	20
009	AS-1	Aqueous	Trichloroethene	8260B	390		ug/L	22
010	AS-1	Aqueous	Acetone	8260B	1400		ug/L	23
010	AS-1	Aqueous	2-Butanone (MEK)	8260B	810		ug/L	23
010	AS-1	Aqueous	Trichloroethene	8260B	220		ug/L	24

(14 detections)

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-001
Description: OB-1B
Matrix: Aqueous
Date Sampled: 12/08/2014 1430
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/17/2014 0511	PMM2		63233

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		25	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	ug/L	1
Bromoform	75-25-2	8260B	ND		25	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	ug/L	1
Chloroform	67-66-3	8260B	ND		25	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	ug/L	1
Styrene	100-42-5	8260B	ND		25	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	ug/L	1
Toluene	108-88-3	8260B	ND		25	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-001
Description: OB-1B
Matrix: Aqueous
Date Sampled: 12/08/2014 1430
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/17/2014 0511	PMM2		63233

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	460		25	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		115	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-002
Description: OB-1B
Matrix: Aqueous
Date Sampled: 12/10/2014 1445
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	12/17/2014 0533	PMM2		63233

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		200	ug/L	1
Benzene	71-43-2	8260B	ND		50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	ug/L	1
Bromoform	75-25-2	8260B	ND		50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	ug/L	1
Chloroethane	75-00-3	8260B	ND		50	ug/L	1
Chloroform	67-66-3	8260B	ND		50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	ug/L	1
Styrene	100-42-5	8260B	ND		50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	ug/L	1
Toluene	108-88-3	8260B	ND		50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-002
Description: OB-1B
Matrix: Aqueous
Date Sampled: 12/10/2014 1445
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	12/17/2014 0533	PMM2		63233

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	860		50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-003
Description: 0B-2B
Matrix: Aqueous
Date Sampled: 12/08/2014 1450
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0417	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		25	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	ug/L	1
Bromoform	75-25-2	8260B	ND		25	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	ug/L	1
Chloroform	67-66-3	8260B	ND		25	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	ug/L	1
Styrene	100-42-5	8260B	ND		25	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	ug/L	1
Toluene	108-88-3	8260B	ND		25	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-003
Description: 0B-2B
Matrix: Aqueous
Date Sampled: 12/08/2014 1450
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0417	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	300		25	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-004
Description: 0B-2B
Matrix: Aqueous
Date Sampled: 12/10/2014 1505
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0439	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		1000	ug/L	1
Benzene	71-43-2	8260B	ND		250	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		250	ug/L	1
Bromoform	75-25-2	8260B	ND		250	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		250	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		250	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		250	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		250	ug/L	1
Chloroethane	75-00-3	8260B	ND		250	ug/L	1
Chloroform	67-66-3	8260B	ND		250	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		250	ug/L	1
Cyclohexane	110-82-7	8260B	ND		250	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		250	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		250	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		250	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		250	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		250	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		250	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		250	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		250	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		250	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		250	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		250	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		250	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		250	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		250	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		250	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		250	ug/L	1
Methyl acetate	79-20-9	8260B	ND		250	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	ug/L	1
Methylene chloride	75-09-2	8260B	ND		250	ug/L	1
Styrene	100-42-5	8260B	ND		250	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		250	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		250	ug/L	1
Toluene	108-88-3	8260B	ND		250	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		250	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		250	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		250	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		250	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-004
Description: 0B-2B
Matrix: Aqueous
Date Sampled: 12/10/2014 1505
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0439	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	2700		250	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		250	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		100	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-005
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/08/2014 1550
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0501	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		1000	ug/L	1
Benzene	71-43-2	8260B	ND		250	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		250	ug/L	1
Bromoform	75-25-2	8260B	ND		250	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		250	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		250	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		250	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		250	ug/L	1
Chloroethane	75-00-3	8260B	ND		250	ug/L	1
Chloroform	67-66-3	8260B	ND		250	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		250	ug/L	1
Cyclohexane	110-82-7	8260B	ND		250	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		250	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		250	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		250	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		250	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		250	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		250	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		250	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		250	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		250	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		250	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		250	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		250	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		250	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		250	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		250	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		250	ug/L	1
Methyl acetate	79-20-9	8260B	ND		250	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	ug/L	1
Methylene chloride	75-09-2	8260B	ND		250	ug/L	1
Styrene	100-42-5	8260B	ND		250	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		250	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		250	ug/L	1
Toluene	108-88-3	8260B	ND		250	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		250	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		250	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		250	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		250	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-005
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/08/2014 1550
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0501	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	2700		250	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		250	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		100	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-006
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/10/2014 1425
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0523	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		1000	ug/L	1
Benzene	71-43-2	8260B	ND		250	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		250	ug/L	1
Bromoform	75-25-2	8260B	ND		250	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		250	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		250	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		250	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		250	ug/L	1
Chloroethane	75-00-3	8260B	ND		250	ug/L	1
Chloroform	67-66-3	8260B	ND		250	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		250	ug/L	1
Cyclohexane	110-82-7	8260B	ND		250	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		250	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		250	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		250	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		250	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		250	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		250	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		250	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		250	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		250	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		250	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		250	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		250	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		250	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		250	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		250	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		250	ug/L	1
Methyl acetate	79-20-9	8260B	ND		250	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		250	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	ug/L	1
Methylene chloride	75-09-2	8260B	ND		250	ug/L	1
Styrene	100-42-5	8260B	ND		250	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		250	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		250	ug/L	1
Toluene	108-88-3	8260B	ND		250	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		250	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		250	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		250	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		250	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-006
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/10/2014 1425
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	12/18/2014 0523	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	2700		250	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		250	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		100	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		250	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-007
Description: DW-1
Matrix: Aqueous
Date Sampled: 12/08/2014 1530
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2014 0059	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	5.1		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-007
Description: DW-1
Matrix: Aqueous
Date Sampled: 12/08/2014 1530
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2014 0059	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	94		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-008
Description: DW-1
Matrix: Aqueous
Date Sampled: 12/10/2014 1405
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2014 0120	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		5.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		5.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		5.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	5.2		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-008
Description: DW-1
Matrix: Aqueous
Date Sampled: 12/10/2014 1405
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/18/2014 0120	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	100		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		93	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-009
Description: AS-1
Matrix: Aqueous
Date Sampled: 12/08/2014 1510
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0545	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		25	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	ug/L	1
Bromoform	75-25-2	8260B	ND		25	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	ug/L	1
Chloroform	67-66-3	8260B	ND		25	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	ug/L	1
Styrene	100-42-5	8260B	ND		25	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	ug/L	1
Toluene	108-88-3	8260B	ND		25	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-009
Description: AS-1
Matrix: Aqueous
Date Sampled: 12/08/2014 1510
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0545	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	390		25	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-010
Description: AS-1
Matrix: Aqueous
Date Sampled: 12/10/2014 1530
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0607	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	1400		100	ug/L	1
Benzene	71-43-2	8260B	ND		25	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		25	ug/L	1
Bromoform	75-25-2	8260B	ND		25	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		25	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	810		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		25	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		25	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		25	ug/L	1
Chloroethane	75-00-3	8260B	ND		25	ug/L	1
Chloroform	67-66-3	8260B	ND		25	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		25	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		25	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		25	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		25	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		25	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		25	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		25	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		25	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		25	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		25	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		25	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		25	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		25	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		25	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		25	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		25	ug/L	1
Methyl acetate	79-20-9	8260B	ND		25	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	1
Methylene chloride	75-09-2	8260B	ND		25	ug/L	1
Styrene	100-42-5	8260B	ND		25	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		25	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		25	ug/L	1
Toluene	108-88-3	8260B	ND		25	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		25	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		25	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		25	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		25	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: PL12058-010
Description: AS-1
Matrix: Aqueous
Date Sampled: 12/10/2014 1530
Date Received: 12/12/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/18/2014 0607	PMM2		63373

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	220		25	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		25	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ63233-001
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	20	ug/L	12/16/2014 2215
Benzene	ND		1	5.0	ug/L	12/16/2014 2215
Bromodichloromethane	ND		1	5.0	ug/L	12/16/2014 2215
Bromoform	ND		1	5.0	ug/L	12/16/2014 2215
Bromomethane (Methyl bromide)	ND		1	5.0	ug/L	12/16/2014 2215
2-Butanone (MEK)	ND		1	10	ug/L	12/16/2014 2215
Carbon disulfide	ND		1	5.0	ug/L	12/16/2014 2215
Carbon tetrachloride	ND		1	5.0	ug/L	12/16/2014 2215
Chlorobenzene	ND		1	5.0	ug/L	12/16/2014 2215
Chloroethane	ND		1	5.0	ug/L	12/16/2014 2215
Chloroform	ND		1	5.0	ug/L	12/16/2014 2215
Chloromethane (Methyl chloride)	ND		1	5.0	ug/L	12/16/2014 2215
Cyclohexane	ND		1	5.0	ug/L	12/16/2014 2215
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	ug/L	12/16/2014 2215
Dibromochloromethane	ND		1	5.0	ug/L	12/16/2014 2215
1,2-Dibromoethane (EDB)	ND		1	5.0	ug/L	12/16/2014 2215
1,2-Dichlorobenzene	ND		1	5.0	ug/L	12/16/2014 2215
1,4-Dichlorobenzene	ND		1	5.0	ug/L	12/16/2014 2215
1,3-Dichlorobenzene	ND		1	5.0	ug/L	12/16/2014 2215
Dichlorodifluoromethane	ND		1	5.0	ug/L	12/16/2014 2215
1,2-Dichloroethane	ND		1	5.0	ug/L	12/16/2014 2215
1,1-Dichloroethane	ND		1	5.0	ug/L	12/16/2014 2215
trans-1,2-Dichloroethene	ND		1	5.0	ug/L	12/16/2014 2215
cis-1,2-Dichloroethene	ND		1	5.0	ug/L	12/16/2014 2215
1,1-Dichloroethene	ND		1	5.0	ug/L	12/16/2014 2215
1,2-Dichloropropane	ND		1	5.0	ug/L	12/16/2014 2215
cis-1,3-Dichloropropene	ND		1	5.0	ug/L	12/16/2014 2215
trans-1,3-Dichloropropene	ND		1	5.0	ug/L	12/16/2014 2215
Ethylbenzene	ND		1	5.0	ug/L	12/16/2014 2215
2-Hexanone	ND		1	10	ug/L	12/16/2014 2215
Isopropylbenzene	ND		1	5.0	ug/L	12/16/2014 2215
Methyl acetate	ND		1	5.0	ug/L	12/16/2014 2215
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/L	12/16/2014 2215
4-Methyl-2-pentanone	ND		1	10	ug/L	12/16/2014 2215
Methylcyclohexane	ND		1	5.0	ug/L	12/16/2014 2215
Methylene chloride	ND		1	5.0	ug/L	12/16/2014 2215
Styrene	ND		1	5.0	ug/L	12/16/2014 2215
1,1,2,2-Tetrachloroethane	ND		1	5.0	ug/L	12/16/2014 2215
Tetrachloroethene	ND		1	5.0	ug/L	12/16/2014 2215
Toluene	ND		1	5.0	ug/L	12/16/2014 2215
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	ug/L	12/16/2014 2215
1,2,4-Trichlorobenzene	ND		1	5.0	ug/L	12/16/2014 2215
1,1,1-Trichloroethane	ND		1	5.0	ug/L	12/16/2014 2215
1,1,2-Trichloroethane	ND		1	5.0	ug/L	12/16/2014 2215

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ63233-001
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	5.0	ug/L	12/16/2014 2215
Trichlorofluoromethane	ND		1	5.0	ug/L	12/16/2014 2215
Vinyl chloride	ND		1	2.0	ug/L	12/16/2014 2215
Xylenes (total)	ND		1	5.0	ug/L	12/16/2014 2215

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ63233-002
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	81		1	81	60-140	12/16/2014 2054
Benzene	50	47		1	94	70-130	12/16/2014 2054
Bromodichloromethane	50	50		1	100	70-130	12/16/2014 2054
Bromoform	50	45		1	90	70-130	12/16/2014 2054
Bromomethane (Methyl bromide)	50	52		1	103	60-140	12/16/2014 2054
2-Butanone (MEK)	100	98		1	98	60-140	12/16/2014 2054
Carbon disulfide	50	43		1	86	60-140	12/16/2014 2054
Carbon tetrachloride	50	50		1	100	70-130	12/16/2014 2054
Chlorobenzene	50	48		1	96	70-130	12/16/2014 2054
Chloroethane	50	54		1	109	42-163	12/16/2014 2054
Chloroform	50	47		1	95	70-130	12/16/2014 2054
Chloromethane (Methyl chloride)	50	52		1	104	60-140	12/16/2014 2054
Cyclohexane	50	46		1	93	70-130	12/16/2014 2054
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	12/16/2014 2054
Dibromochloromethane	50	52		1	105	70-130	12/16/2014 2054
1,2-Dibromoethane (EDB)	50	51		1	101	70-130	12/16/2014 2054
1,2-Dichlorobenzene	50	49		1	98	70-130	12/16/2014 2054
1,4-Dichlorobenzene	50	48		1	96	70-130	12/16/2014 2054
1,3-Dichlorobenzene	50	49		1	98	70-130	12/16/2014 2054
Dichlorodifluoromethane	50	49		1	98	60-140	12/16/2014 2054
1,2-Dichloroethane	50	48		1	97	70-130	12/16/2014 2054
1,1-Dichloroethane	50	48		1	95	70-130	12/16/2014 2054
trans-1,2-Dichloroethene	50	48		1	96	70-130	12/16/2014 2054
cis-1,2-Dichloroethene	50	49		1	97	70-130	12/16/2014 2054
1,1-Dichloroethene	50	47		1	94	70-130	12/16/2014 2054
1,2-Dichloropropane	50	48		1	96	70-130	12/16/2014 2054
cis-1,3-Dichloropropene	50	54		1	107	70-130	12/16/2014 2054
trans-1,3-Dichloropropene	50	48		1	95	70-130	12/16/2014 2054
Ethylbenzene	50	51		1	102	70-130	12/16/2014 2054
2-Hexanone	100	91		1	91	60-140	12/16/2014 2054
Isopropylbenzene	50	51		1	103	70-130	12/16/2014 2054
Methyl acetate	50	49		1	99	60-140	12/16/2014 2054
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	12/16/2014 2054
4-Methyl-2-pentanone	100	93		1	93	60-140	12/16/2014 2054
Methylcyclohexane	50	54		1	108	70-130	12/16/2014 2054
Methylene chloride	50	49		1	98	70-130	12/16/2014 2054
Styrene	50	52		1	105	70-130	12/16/2014 2054
1,1,2,2-Tetrachloroethane	50	49		1	99	70-130	12/16/2014 2054
Tetrachloroethene	50	51		1	102	70-130	12/16/2014 2054
Toluene	50	51		1	101	70-130	12/16/2014 2054
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	99	70-130	12/16/2014 2054
1,2,4-Trichlorobenzene	50	54		1	108	70-130	12/16/2014 2054
1,1,1-Trichloroethane	50	49		1	98	70-130	12/16/2014 2054
1,1,2-Trichloroethane	50	50		1	100	70-130	12/16/2014 2054

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ63233-002
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	12/16/2014 2054
Trichlorofluoromethane	50	50		1	99	70-130	12/16/2014 2054
Vinyl chloride	50	48		1	97	70-130	12/16/2014 2054
Xylenes (total)	100	110		1	107	70-130	12/16/2014 2054

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		120	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		114	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PL12058-002MS
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	1100		10	109	60-140	12/17/2014 0555
Benzene	ND	500	550		10	111	70-130	12/17/2014 0555
Bromodichloromethane	ND	500	550		10	110	71-143	12/17/2014 0555
Bromoform	ND	500	450		10	90	65-131	12/17/2014 0555
Bromomethane (Methyl bromide)	ND	500	600		10	119	36-168	12/17/2014 0555
2-Butanone (MEK)	ND	1000	1100		10	111	60-140	12/17/2014 0555
Carbon disulfide	ND	500	460		10	91	60-140	12/17/2014 0555
Carbon tetrachloride	ND	500	560		10	112	37-166	12/17/2014 0555
Chlorobenzene	ND	500	520		10	104	78-129	12/17/2014 0555
Chloroethane	ND	500	640		10	128	60-140	12/17/2014 0555
Chloroform	ND	500	530		10	107	63-123	12/17/2014 0555
Chloromethane (Methyl chloride)	ND	500	560		10	113	20-158	12/17/2014 0555
Cyclohexane	ND	500	570		10	114	70-130	12/17/2014 0555
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	470		10	95	70-130	12/17/2014 0555
Dibromochloromethane	ND	500	530		10	106	74-134	12/17/2014 0555
1,2-Dibromoethane (EDB)	ND	500	540		10	108	70-130	12/17/2014 0555
1,2-Dichlorobenzene	ND	500	520		10	105	70-130	12/17/2014 0555
1,3-Dichlorobenzene	ND	500	540		10	107	70-130	12/17/2014 0555
1,4-Dichlorobenzene	ND	500	510		10	102	70-130	12/17/2014 0555
Dichlorodifluoromethane	ND	500	550		10	110	10-158	12/17/2014 0555
1,1-Dichloroethane	ND	500	560		10	111	69-132	12/17/2014 0555
1,2-Dichloroethane	ND	500	540		10	108	70-130	12/17/2014 0555
1,1-Dichloroethene	ND	500	540		10	108	50-132	12/17/2014 0555
cis-1,2-Dichloroethene	ND	500	560		10	112	70-130	12/17/2014 0555
trans-1,2-Dichloroethene	ND	500	550		10	111	70-130	12/17/2014 0555
1,2-Dichloropropane	ND	500	570		10	114	71-126	12/17/2014 0555
cis-1,3-Dichloropropene	ND	500	570		10	114	69-130	12/17/2014 0555
trans-1,3-Dichloropropene	ND	500	480		10	96	73-131	12/17/2014 0555
Ethylbenzene	ND	500	570		10	114	70-130	12/17/2014 0555
2-Hexanone	ND	1000	1000		10	104	60-140	12/17/2014 0555
Isopropylbenzene	ND	500	550		10	111	70-130	12/17/2014 0555
Methyl acetate	ND	500	550		10	110	15-128	12/17/2014 0555
Methyl tertiary butyl ether (MTBE)	ND	500	550		10	109	70-130	12/17/2014 0555
4-Methyl-2-pentanone	ND	1000	1100		10	111	60-140	12/17/2014 0555
Methylcyclohexane	ND	500	620		10	125	70-130	12/17/2014 0555
Methylene chloride	ND	500	550		10	110	69-129	12/17/2014 0555
Styrene	ND	500	580		10	115	70-130	12/17/2014 0555
1,1,2,2-Tetrachloroethane	ND	500	540		10	109	60-155	12/17/2014 0555
Tetrachloroethene	ND	500	560		10	108	70-130	12/17/2014 0555
Toluene	ND	500	590		10	118	70-130	12/17/2014 0555
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	560		10	110	70-130	12/17/2014 0555
1,2,4-Trichlorobenzene	ND	500	560		10	112	70-130	12/17/2014 0555
1,1,1-Trichloroethane	ND	500	560		10	113	77-132	12/17/2014 0555
1,1,2-Trichloroethane	ND	500	530		10	105	77-132	12/17/2014 0555

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PL12058-002MS
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	860	500	1400		10	107	73-124	12/17/2014 0555
Trichlorofluoromethane	ND	500	570		10	114	60-140	12/17/2014 0555
Vinyl chloride	ND	500	500		10	100	29-159	12/17/2014 0555
Xylenes (total)	ND	1000	1200		10	119	70-130	12/17/2014 0555

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		121	70-130
Toluene-d8		117	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PL12058-002MD
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	1000		10	105	4.1	60-140	20	12/17/2014 0617
Benzene	ND	500	550		10	110	0.75	70-130	20	12/17/2014 0617
Bromodichloromethane	ND	500	560		10	111	0.99	71-143	20	12/17/2014 0617
Bromoform	ND	500	460		10	91	1.7	65-131	20	12/17/2014 0617
Bromomethane (Methyl bromide)	ND	500	580		10	116	2.6	36-168	20	12/17/2014 0617
2-Butanone (MEK)	ND	1000	1100		10	109	1.6	60-140	20	12/17/2014 0617
Carbon disulfide	ND	500	460		10	91	0.12	60-140	20	12/17/2014 0617
Carbon tetrachloride	ND	500	570		10	115	2.6	37-166	20	12/17/2014 0617
Chlorobenzene	ND	500	520		10	105	0.27	78-129	20	12/17/2014 0617
Chloroethane	ND	500	610		10	123	3.9	60-140	20	12/17/2014 0617
Chloroform	ND	500	540		10	108	1.3	63-123	20	12/17/2014 0617
Chloromethane (Methyl chloride)	ND	500	580		10	115	2.1	20-158	20	12/17/2014 0617
Cyclohexane	ND	500	550		10	111	3.1	70-130	20	12/17/2014 0617
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	470		10	95	0.45	70-130	20	12/17/2014 0617
Dibromochloromethane	ND	500	540		10	107	1.3	74-134	20	12/17/2014 0617
1,2-Dibromoethane (EDB)	ND	500	540		10	108	0.27	70-130	20	12/17/2014 0617
1,2-Dichlorobenzene	ND	500	530		10	107	1.6	70-130	20	12/17/2014 0617
1,3-Dichlorobenzene	ND	500	530		10	106	1.1	70-130	20	12/17/2014 0617
1,4-Dichlorobenzene	ND	500	510		10	102	0.77	70-130	20	12/17/2014 0617
Dichlorodifluoromethane	ND	500	570		10	115	4.6	10-158	20	12/17/2014 0617
1,1-Dichloroethane	ND	500	540		10	108	2.8	69-132	20	12/17/2014 0617
1,2-Dichloroethane	ND	500	540		10	108	0.39	70-130	20	12/17/2014 0617
1,1-Dichloroethene	ND	500	540		10	107	0.97	50-132	20	12/17/2014 0617
cis-1,2-Dichloroethene	ND	500	560		10	112	0.15	70-130	20	12/17/2014 0617
trans-1,2-Dichloroethene	ND	500	550		10	110	0.17	70-130	20	12/17/2014 0617
1,2-Dichloropropane	ND	500	560		10	113	1.0	71-126	20	12/17/2014 0617
cis-1,3-Dichloropropene	ND	500	570		10	114	0.15	69-130	20	12/17/2014 0617
trans-1,3-Dichloropropene	ND	500	490		10	98	1.8	73-131	20	12/17/2014 0617
Ethylbenzene	ND	500	570		10	114	0.11	70-130	20	12/17/2014 0617
2-Hexanone	ND	1000	1000		10	103	0.75	60-140	20	12/17/2014 0617
Isopropylbenzene	ND	500	560		10	112	1.5	70-130	20	12/17/2014 0617
Methyl acetate	ND	500	540		10	107	2.6	15-128	20	12/17/2014 0617
Methyl tertiary butyl ether (MTBE)	ND	500	560		10	113	3.2	70-130	20	12/17/2014 0617
4-Methyl-2-pentanone	ND	1000	1100		10	109	2.3	60-140	20	12/17/2014 0617
Methylcyclohexane	ND	500	630		10	126	1.2	70-130	20	12/17/2014 0617
Methylene chloride	ND	500	550		10	110	0.00090	69-129	20	12/17/2014 0617
Styrene	ND	500	580		10	115	0.11	70-130	20	12/17/2014 0617
1,1,2,2-Tetrachloroethane	ND	500	540		10	108	0.41	60-155	20	12/17/2014 0617
Tetrachloroethene	ND	500	590		10	113	4.4	70-130	20	12/17/2014 0617
Toluene	ND	500	590		10	117	0.91	70-130	20	12/17/2014 0617
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	590		10	116	5.1	70-130	20	12/17/2014 0617
1,2,4-Trichlorobenzene	ND	500	570		10	115	2.6	70-130	20	12/17/2014 0617
1,1,1-Trichloroethane	ND	500	570		10	113	0.41	77-132	20	12/17/2014 0617
1,1,2-Trichloroethane	ND	500	540		10	109	3.0	77-132	20	12/17/2014 0617

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PL12058-002MD
Batch: 63233
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	860	500	1400		10	106	0.30	73-124	20	12/17/2014 0617
Trichlorofluoromethane	ND	500	570		10	114	0.27	60-140	20	12/17/2014 0617
Vinyl chloride	ND	500	540		10	107	7.2	29-159	20	12/17/2014 0617
Xylenes (total)	ND	1000	1200		10	120	0.93	70-130	20	12/17/2014 0617

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		123	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ63373-001
Batch: 63373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	20	ug/L	12/17/2014 2236
Benzene	ND		1	5.0	ug/L	12/17/2014 2236
Bromodichloromethane	ND		1	5.0	ug/L	12/17/2014 2236
Bromoform	ND		1	5.0	ug/L	12/17/2014 2236
Bromomethane (Methyl bromide)	ND		1	5.0	ug/L	12/17/2014 2236
2-Butanone (MEK)	ND		1	10	ug/L	12/17/2014 2236
Carbon disulfide	ND		1	5.0	ug/L	12/17/2014 2236
Carbon tetrachloride	ND		1	5.0	ug/L	12/17/2014 2236
Chlorobenzene	ND		1	5.0	ug/L	12/17/2014 2236
Chloroethane	ND		1	5.0	ug/L	12/17/2014 2236
Chloroform	ND		1	5.0	ug/L	12/17/2014 2236
Chloromethane (Methyl chloride)	ND		1	5.0	ug/L	12/17/2014 2236
Cyclohexane	ND		1	5.0	ug/L	12/17/2014 2236
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	ug/L	12/17/2014 2236
Dibromochloromethane	ND		1	5.0	ug/L	12/17/2014 2236
1,2-Dibromoethane (EDB)	ND		1	5.0	ug/L	12/17/2014 2236
1,4-Dichlorobenzene	ND		1	5.0	ug/L	12/17/2014 2236
1,3-Dichlorobenzene	ND		1	5.0	ug/L	12/17/2014 2236
1,2-Dichlorobenzene	ND		1	5.0	ug/L	12/17/2014 2236
Dichlorodifluoromethane	ND		1	5.0	ug/L	12/17/2014 2236
1,2-Dichloroethane	ND		1	5.0	ug/L	12/17/2014 2236
1,1-Dichloroethane	ND		1	5.0	ug/L	12/17/2014 2236
trans-1,2-Dichloroethene	ND		1	5.0	ug/L	12/17/2014 2236
cis-1,2-Dichloroethene	ND		1	5.0	ug/L	12/17/2014 2236
1,1-Dichloroethene	ND		1	5.0	ug/L	12/17/2014 2236
1,2-Dichloropropane	ND		1	5.0	ug/L	12/17/2014 2236
trans-1,3-Dichloropropene	ND		1	5.0	ug/L	12/17/2014 2236
cis-1,3-Dichloropropene	ND		1	5.0	ug/L	12/17/2014 2236
Ethylbenzene	ND		1	5.0	ug/L	12/17/2014 2236
2-Hexanone	ND		1	10	ug/L	12/17/2014 2236
Isopropylbenzene	ND		1	5.0	ug/L	12/17/2014 2236
Methyl acetate	ND		1	5.0	ug/L	12/17/2014 2236
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	ug/L	12/17/2014 2236
4-Methyl-2-pentanone	ND		1	10	ug/L	12/17/2014 2236
Methylcyclohexane	ND		1	5.0	ug/L	12/17/2014 2236
Methylene chloride	ND		1	5.0	ug/L	12/17/2014 2236
Styrene	ND		1	5.0	ug/L	12/17/2014 2236
1,1,2,2-Tetrachloroethane	ND		1	5.0	ug/L	12/17/2014 2236
Tetrachloroethene	ND		1	5.0	ug/L	12/17/2014 2236
Toluene	ND		1	5.0	ug/L	12/17/2014 2236
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	ug/L	12/17/2014 2236
1,2,4-Trichlorobenzene	ND		1	5.0	ug/L	12/17/2014 2236
1,1,2-Trichloroethane	ND		1	5.0	ug/L	12/17/2014 2236
1,1,1-Trichloroethane	ND		1	5.0	ug/L	12/17/2014 2236

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ63373-001
Batch: 63373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	5.0	ug/L	12/17/2014 2236
Trichlorofluoromethane	ND		1	5.0	ug/L	12/17/2014 2236
Vinyl chloride	ND		1	2.0	ug/L	12/17/2014 2236
Xylenes (total)	ND		1	5.0	ug/L	12/17/2014 2236

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ63373-002
Batch: 63373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	78		1	78	60-140	12/17/2014 2137
Benzene	50	48		1	96	70-130	12/17/2014 2137
Bromodichloromethane	50	49		1	99	70-130	12/17/2014 2137
Bromoform	50	49		1	97	70-130	12/17/2014 2137
Bromomethane (Methyl bromide)	50	57		1	115	60-140	12/17/2014 2137
2-Butanone (MEK)	100	88		1	88	60-140	12/17/2014 2137
Carbon disulfide	50	47		1	94	60-140	12/17/2014 2137
Carbon tetrachloride	50	50		1	99	70-130	12/17/2014 2137
Chlorobenzene	50	48		1	97	70-130	12/17/2014 2137
Chloroethane	50	56		1	113	42-163	12/17/2014 2137
Chloroform	50	47		1	93	70-130	12/17/2014 2137
Chloromethane (Methyl chloride)	50	64		1	127	60-140	12/17/2014 2137
Cyclohexane	50	47		1	93	70-130	12/17/2014 2137
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	70-130	12/17/2014 2137
Dibromochloromethane	50	52		1	104	70-130	12/17/2014 2137
1,2-Dibromoethane (EDB)	50	47		1	95	70-130	12/17/2014 2137
1,4-Dichlorobenzene	50	48		1	96	70-130	12/17/2014 2137
1,3-Dichlorobenzene	50	49		1	99	70-130	12/17/2014 2137
1,2-Dichlorobenzene	50	48		1	95	70-130	12/17/2014 2137
Dichlorodifluoromethane	50	65		1	130	60-140	12/17/2014 2137
1,2-Dichloroethane	50	46		1	92	70-130	12/17/2014 2137
1,1-Dichloroethane	50	47		1	93	70-130	12/17/2014 2137
trans-1,2-Dichloroethene	50	48		1	96	70-130	12/17/2014 2137
cis-1,2-Dichloroethene	50	47		1	94	70-130	12/17/2014 2137
1,1-Dichloroethene	50	48		1	96	70-130	12/17/2014 2137
1,2-Dichloropropane	50	48		1	96	70-130	12/17/2014 2137
trans-1,3-Dichloropropene	50	49		1	99	70-130	12/17/2014 2137
cis-1,3-Dichloropropene	50	49		1	98	70-130	12/17/2014 2137
Ethylbenzene	50	49		1	97	70-130	12/17/2014 2137
2-Hexanone	100	96		1	96	60-140	12/17/2014 2137
Isopropylbenzene	50	47		1	95	70-130	12/17/2014 2137
Methyl acetate	50	45		1	90	60-140	12/17/2014 2137
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	12/17/2014 2137
4-Methyl-2-pentanone	100	92		1	92	60-140	12/17/2014 2137
Methylcyclohexane	50	53		1	106	70-130	12/17/2014 2137
Methylene chloride	50	46		1	91	70-130	12/17/2014 2137
Styrene	50	51		1	103	70-130	12/17/2014 2137
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	12/17/2014 2137
Tetrachloroethene	50	50		1	99	70-130	12/17/2014 2137
Toluene	50	49		1	98	70-130	12/17/2014 2137
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	12/17/2014 2137
1,2,4-Trichlorobenzene	50	48		1	97	70-130	12/17/2014 2137
1,1,2-Trichloroethane	50	47		1	94	70-130	12/17/2014 2137
1,1,1-Trichloroethane	50	48		1	96	70-130	12/17/2014 2137

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ63373-002
Batch: 63373
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	12/17/2014 2137
Trichlorofluoromethane	50	56		1	112	70-130	12/17/2014 2137
Vinyl chloride	50	57		1	115	70-130	12/17/2014 2137
Xylenes (total)	100	98		1	98	70-130	12/17/2014 2137

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 42826

Client	ERM NC, Inc
Address	15720 Brixham Hill Ave Ste 120
City	Charlotte
State	NC
Zip Code	28277
Project Name	ECI - Elon
Project No.	
P.O. No.	
Report to Contact	Ed.Hollifield@erm.com
Sampler's Signature	X
Printed Name	Thomas Fisher
Telephone No. / E-mail	704-541-8345
Quote No.	
Analysis (Attach list if more space is needed)	
Page	1 of 1
	PL12058

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Comp	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	ZnOAc/NaOH	VOC	Remarks / Cooler I.D.
OB-1B	12/8/14	1430	G	X						X			X	
OB-1B	12/10/14	1445	G	X						X			X	
OB-2B	12/8/14	1450	G	X						X			X	
OB-2B	12/10/14	1505	G	X						X			X	
MW-7	12/8/14	1550	G	X						X			X	
MW-7	12/10/14	1425	G	X						X			X	
DW-1	12/8/14	1530	G	X						X			X	
DW-1	12/10/14	1405	G	X						X			X	
AS-1	12/8/14	1510	G	X						X			X	
AS-1	12/10/14	1530	G	X						X			X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) X Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client X Disposal by Lab

Possible Hazard Identification X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	12/11/14	1900	1. Received by Leann Allen / Shealy Office	12.11.14	1900
2. Relinquished by Leann Allen / Shealy Office	12.12.14	855	2. Received by Mike Chapman	12.12.14	855
3. Relinquished by Mike Chapman	12.12.14	1645	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	12/12/14	1645

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp. 1.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 16

Page 1 of 1
Replaces Date: 07/15/14
Effective Date: 11/07/14

Sample Receipt Checklist (SRC)

Client: ERM Cooler Inspected by/date: mam / 12/12/14 Lot #: PL12058

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
1.7/1.3 °C / / °C / / °C / / °C
Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: #4 IR Gun Correction Factor: 0.1 °C
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☐	No ☑		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____were received incorrectly preserved and were adjusted accordingly in sample receiving with _____(H_2SO_4,HNO_3,HCl,NaOH) using SR # _____.

Sample(s) _____were received with bubbles >6 mm in diameter.

Sample(s)_____were received with TRC >0.2 mg/L (If #21 is No)

SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR#_____

Sample labels applied by: mam Verified by: mam Date: 12/12/14

Comments:

Report of Analysis

ERM NC, Inc.
Ballantyne One
15720 Brixham Hill Avenue, Suite 120
Charlotte, NC 28277
Attention: Ed Hollifield

Project Name: ECI - Elon

Lot Number: QA29037

Date Completed: 01/30/2015

Kelly M. Nance
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

QA29037

Case Narrative

ERM NC, Inc.

Lot Number: QA29037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

ERM NC, Inc.

Lot Number: QA29037

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DW-6	Aqueous	01/29/2015 1400	01/29/2015
002	DW-6D	Aqueous	01/29/2015 1310	01/29/2015
003	Trip Blank	Aqueous	01/29/2015	01/29/2015

(3 samples)

Executive Summary

ERM NC, Inc.

Lot Number: QA29037

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DW-6	Aqueous	Tetrachloroethene	8260B	8.2		ug/L	7
001	DW-6	Aqueous	Trichloroethene	8260B	4.0		ug/L	7
002	DW-6D	Aqueous	cis-1,2-Dichloroethene	8260B	0.69	J	ug/L	9
002	DW-6D	Aqueous	Tetrachloroethene	8260B	3.0		ug/L	10
002	DW-6D	Aqueous	Trichloroethene	8260B	3.2		ug/L	10

(5 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.
Laboratory ID: QA29037-001
Description: DW-6
Matrix: Aqueous
Date Sampled: 01/29/2015 1400
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	01/30/2015 1154	DCS		66524

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-001
Description: DW-6
Matrix: Aqueous
Date Sampled: 01/29/2015 1400
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1447	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-001
Description: DW-6
Matrix: Aqueous
Date Sampled: 01/29/2015 1400
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1447	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	8.2		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	4.0		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		102	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.
Laboratory ID: QA29037-002
Description: DW-6D
Matrix: Aqueous
Date Sampled: 01/29/2015 1310
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	01/30/2015 1130	DCS		66524

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-002
Description: DW-6D
Matrix: Aqueous
Date Sampled: 01/29/2015 1310
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1508	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.69	J	1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-002
Description: DW-6D
Matrix: Aqueous
Date Sampled: 01/29/2015 1310
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1508	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	3.0		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	3.2		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.	Laboratory ID: QA29037-003
Description: Trip Blank	Matrix: Aqueous
Date Sampled: 01/29/2015	
Date Received: 01/29/2015	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	01/30/2015 1107	DCS		66524

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-003
Description: Trip Blank
Matrix: Aqueous
Date Sampled: 01/29/2015
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1426	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QA29037-003
Description: Trip Blank
Matrix: Aqueous
Date Sampled: 01/29/2015
Date Received: 01/29/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2015 1426	ALL		66550

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: QQ66524-001
Batch: 66524
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	0.48	ug/L	01/30/2015 1044

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: QQ66524-002
Batch: 66524
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	49		1	98	50-150	01/30/2015 0942

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ66550-001
Batch: 66550
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	01/30/2015 1019
Benzene	ND		1	1.0	0.13	ug/L	01/30/2015 1019
Bromobenzene	ND		1	1.0	0.027	ug/L	01/30/2015 1019
Bromochloromethane	ND		1	1.0	0.16	ug/L	01/30/2015 1019
Bromodichloromethane	ND		1	1.0	0.33	ug/L	01/30/2015 1019
Bromoform	ND		1	1.0	0.66	ug/L	01/30/2015 1019
Bromomethane (Methyl bromide)	ND		1	2.0	0.80	ug/L	01/30/2015 1019
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/30/2015 1019
tert-Butylbenzene	ND		1	1.0	0.080	ug/L	01/30/2015 1019
sec-Butylbenzene	ND		1	1.0	0.070	ug/L	01/30/2015 1019
n-Butylbenzene	ND		1	1.0	0.21	ug/L	01/30/2015 1019
Carbon tetrachloride	ND		1	1.0	0.14	ug/L	01/30/2015 1019
Chlorobenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
Chloroethane	ND		1	2.0	0.47	ug/L	01/30/2015 1019
Chloroform	ND		1	1.0	0.070	ug/L	01/30/2015 1019
Chloromethane (Methyl chloride)	ND		1	1.0	0.35	ug/L	01/30/2015 1019
4-Chlorotoluene	ND		1	1.0	0.12	ug/L	01/30/2015 1019
2-Chlorotoluene	ND		1	1.0	0.060	ug/L	01/30/2015 1019
Dibromochloromethane	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,2-Dibromoethane (EDB)	ND		1	1.0	0.30	ug/L	01/30/2015 1019
1,4-Dichlorobenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,3-Dichlorobenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,2-Dichlorobenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
Dichlorodifluoromethane	ND		1	2.0	0.20	ug/L	01/30/2015 1019
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	01/30/2015 1019
1,1-Dichloroethane	ND		1	1.0	0.13	ug/L	01/30/2015 1019
trans-1,2-Dichloroethene	ND		1	1.0	0.21	ug/L	01/30/2015 1019
cis-1,2-Dichloroethene	ND		1	1.0	0.12	ug/L	01/30/2015 1019
1,1-Dichloroethene	ND		1	1.0	0.16	ug/L	01/30/2015 1019
2,2-Dichloropropane	ND		1	1.0	0.13	ug/L	01/30/2015 1019
1,3-Dichloropropane	ND		1	1.0	0.12	ug/L	01/30/2015 1019
1,2-Dichloropropane	ND		1	1.0	0.19	ug/L	01/30/2015 1019
trans-1,3-Dichloropropene	ND		1	1.0	0.11	ug/L	01/30/2015 1019
cis-1,3-Dichloropropene	ND		1	1.0	0.092	ug/L	01/30/2015 1019
1,1-Dichloropropene	ND		1	2.0	0.85	ug/L	01/30/2015 1019
Diisopropyl ether (IPE)	ND		1	1.0	0.40	ug/L	01/30/2015 1019
Ethanol	ND		1	100	33	ug/L	01/30/2015 1019
Ethylbenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
2-Hexanone	ND		1	10	0.27	ug/L	01/30/2015 1019
Isopropylbenzene	ND		1	1.0	0.030	ug/L	01/30/2015 1019
p-Isopropyltoluene	ND		1	1.0	0.070	ug/L	01/30/2015 1019
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/30/2015 1019
4-Methyl-2-pentanone	ND		1	10	0.31	ug/L	01/30/2015 1019
Methylene chloride	ND		1	1.0	0.33	ug/L	01/30/2015 1019

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ66550-001
Batch: 66550
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	1.0	0.40	ug/L	01/30/2015 1019
n-Propylbenzene	ND		1	1.0	0.070	ug/L	01/30/2015 1019
Styrene	ND		1	1.0	0.12	ug/L	01/30/2015 1019
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.16	ug/L	01/30/2015 1019
1,1,1,2-Tetrachloroethane	ND		1	1.0	0.20	ug/L	01/30/2015 1019
Tetrachloroethene	ND		1	1.0	0.13	ug/L	01/30/2015 1019
Toluene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,2,4-Trichlorobenzene	ND		1	1.0	0.51	ug/L	01/30/2015 1019
1,2,3-Trichlorobenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,1,2-Trichloroethane	ND		1	1.0	0.21	ug/L	01/30/2015 1019
1,1,1-Trichloroethane	ND		1	1.0	0.074	ug/L	01/30/2015 1019
Trichloroethene	ND		1	1.0	0.18	ug/L	01/30/2015 1019
Trichlorofluoromethane	ND		1	1.0	0.30	ug/L	01/30/2015 1019
1,2,3-Trichloropropane	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,3,5-Trimethylbenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
1,2,4-Trimethylbenzene	ND		1	1.0	0.33	ug/L	01/30/2015 1019
Vinyl acetate	ND		1	5.0	1.3	ug/L	01/30/2015 1019
Vinyl chloride	ND		1	1.0	0.054	ug/L	01/30/2015 1019
o - Xylenes	ND		1	1.0	0.50	ug/L	01/30/2015 1019
m+p - Xylenes	ND		1	1.0	0.50	ug/L	01/30/2015 1019
Xylenes (total)	ND		1	1.0	0.33	ug/L	01/30/2015 1019

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ66550-002
Batch: 66550
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	87		1	87	60-140	01/30/2015 0936
Benzene	50	51		1	102	70-130	01/30/2015 0936
Bromobenzene	50	53		1	107	70-130	01/30/2015 0936
Bromochloromethane	50	52		1	104	70-130	01/30/2015 0936
Bromodichloromethane	50	52		1	104	70-130	01/30/2015 0936
Bromoform	50	53		1	106	70-130	01/30/2015 0936
Bromomethane (Methyl bromide)	50	54		1	108	60-140	01/30/2015 0936
2-Butanone (MEK)	100	100		1	104	60-140	01/30/2015 0936
tert-Butylbenzene	50	55		1	109	70-130	01/30/2015 0936
sec-Butylbenzene	50	54		1	109	70-130	01/30/2015 0936
n-Butylbenzene	50	54		1	109	70-130	01/30/2015 0936
Carbon tetrachloride	50	53		1	107	70-130	01/30/2015 0936
Chlorobenzene	50	52		1	105	70-130	01/30/2015 0936
Chloroethane	50	52		1	103	42-163	01/30/2015 0936
Chloroform	50	51		1	102	70-130	01/30/2015 0936
Chloromethane (Methyl chloride)	50	51		1	102	60-140	01/30/2015 0936
4-Chlorotoluene	50	54		1	108	70-130	01/30/2015 0936
2-Chlorotoluene	50	52		1	104	70-130	01/30/2015 0936
Dibromochloromethane	50	54		1	108	70-130	01/30/2015 0936
1,2-Dibromoethane (EDB)	50	55		1	110	70-130	01/30/2015 0936
1,4-Dichlorobenzene	50	53		1	107	70-130	01/30/2015 0936
1,3-Dichlorobenzene	50	52		1	105	70-130	01/30/2015 0936
1,2-Dichlorobenzene	50	53		1	106	70-130	01/30/2015 0936
Dichlorodifluoromethane	50	52		1	104	60-140	01/30/2015 0936
1,2-Dichloroethane	50	49		1	98	70-130	01/30/2015 0936
1,1-Dichloroethane	50	51		1	101	70-130	01/30/2015 0936
trans-1,2-Dichloroethene	50	52		1	105	70-130	01/30/2015 0936
cis-1,2-Dichloroethene	50	52		1	104	70-130	01/30/2015 0936
1,1-Dichloroethene	50	54		1	109	70-130	01/30/2015 0936
2,2-Dichloropropane	50	52		1	105	70-130	01/30/2015 0936
1,3-Dichloropropane	50	53		1	107	70-130	01/30/2015 0936
1,2-Dichloropropane	50	52		1	104	70-130	01/30/2015 0936
trans-1,3-Dichloropropene	50	55		1	110	70-130	01/30/2015 0936
cis-1,3-Dichloropropene	50	53		1	106	70-130	01/30/2015 0936
1,1-Dichloropropene	50	50		1	100	70-130	01/30/2015 0936
Diisopropyl ether (IPE)	50	52		1	104	70-130	01/30/2015 0936
Ethanol	5000	3200		1	64	60-140	01/30/2015 0936
Ethylbenzene	50	54		1	108	70-130	01/30/2015 0936
2-Hexanone	100	110		1	112	60-140	01/30/2015 0936
Isopropylbenzene	50	55		1	111	70-130	01/30/2015 0936
p-Isopropyltoluene	50	55		1	109	70-130	01/30/2015 0936
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	01/30/2015 0936
4-Methyl-2-pentanone	100	110		1	110	60-140	01/30/2015 0936
Methylene chloride	50	52		1	104	70-130	01/30/2015 0936

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ66550-002
Batch: 66550
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	50	49		1	97	70-130	01/30/2015 0936
n-Propylbenzene	50	55		1	111	70-130	01/30/2015 0936
Styrene	50	54		1	107	70-130	01/30/2015 0936
1,1,2,2-Tetrachloroethane	50	52		1	105	60-140	01/30/2015 0936
1,1,1,2-Tetrachloroethane	50	52		1	105	70-130	01/30/2015 0936
Tetrachloroethene	50	54		1	108	70-130	01/30/2015 0936
Toluene	50	53		1	107	70-130	01/30/2015 0936
1,2,4-Trichlorobenzene	50	51		1	102	70-130	01/30/2015 0936
1,2,3-Trichlorobenzene	50	48		1	96	70-130	01/30/2015 0936
1,1,2-Trichloroethane	50	54		1	108	70-130	01/30/2015 0936
1,1,1-Trichloroethane	50	52		1	105	70-130	01/30/2015 0936
Trichloroethene	50	52		1	105	70-130	01/30/2015 0936
Trichlorofluoromethane	50	50		1	100	70-130	01/30/2015 0936
1,2,3-Trichloropropane	50	54		1	108	70-130	01/30/2015 0936
1,3,5-Trimethylbenzene	50	55		1	109	70-130	01/30/2015 0936
1,2,4-Trimethylbenzene	50	54		1	108	70-130	01/30/2015 0936
Vinyl acetate	50	46		1	91	60-140	01/30/2015 0936
Vinyl chloride	50	51		1	103	70-130	01/30/2015 0936
o - Xylenes	50	53		1	106	70-130	01/30/2015 0936
m+p - Xylenes	50	54		1	109	70-130	01/30/2015 0936
Xylenes (total)	100	110		1	107	70-130	01/30/2015 0936

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 44648

Client: ERM NC, Inc
Address: 15720 Brixham Hill Ave Ste 120
City: Charlotte State: NC Zip Code: 28277
Project Name: ECI - Elon
Project No.
P.O. No.
Report to Contact: Ed. Hollifield@erm.com
Sampler's Signature: x
Printed Name: Thomas Fisher
Telephone No. / E-mail: 704-541-8345
Quote No.
Page 1 of 1
QA29037

Analysis (Attach list if more space is needed): 8260 VOC

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		8260 VOC									Remarks / Cooler I.D.
DW-6	1/29/15	1400	G	x						x				x									
DW-6D	1/29/15	1310	G	x						x				x									
Trip Blank	-	-	G	x						x				x									

Turn Around Time Required (Prior lab approval required for expedited TAT.): Standard; Rush (Specify) 24 hr TAT
Sample Disposal: Return to Client; Disposal by Lab
Possible Hazard Identification: Non-Hazard; Flammable; Skin Irritant; Poison; Unknown
QC Requirements (Specify)

		Date	Time			Date	Time
1. Relinquished by		1/29/15	1630	1. Received by	Seure Owen	1/29/15	1630
2. Relinquished by	Seure Owen	1/29/15	0800	2. Received by		1/29/15	0800
3. Relinquished by		Date	Time	3. Received by		Date	Time
4. Relinquished by		1/29/15	1425	4. Laboratory received by		1/29/15	1425

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp. 3.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 16

Page 1 of 1
Replaces Date: 07/15/14
Effective Date: 11/07/14

Sample Receipt Checklist (SRC)

Client: ERM Cooler Inspected by/date: CMT / 1/29/15 Lot #: G9A25037

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
13.3/3.2 °C / / °C / / °C / / °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: #4 IR Gun Correction Factor: -0.1 °C
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) using SR #_____.

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L (If #21 is No)

SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____
Sample(s)_____ were not received at a pH of <2 and were adjusted accordingly using SR#

Sample labels applied by: KWP Verified by: CMT Date: 1/29/15

Comments:

Report of Analysis

ERM NC, Inc.
Ballantyne One
15720 Brixham Hill Avenue, Suite 120
Charlotte, NC 28277
Attention: Ed Hollifield

Project Name: ECI Elon

Project Number: 0235393

Lot Number: QB13005

Date Completed: 02/20/2015

Kelly M. Nance
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

QB13005

Case Narrative

ERM NC, Inc.

Lot Number: QB13005

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

ERM NC, Inc.

Lot Number: QB13005

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DW-2D	Aqueous	02/12/2015 1600	02/13/2015
002	DW-6	Aqueous	02/12/2015 1245	02/13/2015
003	DW-6D	Aqueous	02/12/2015 1115	02/13/2015
004	TRIP BLANK	Aqueous	02/12/2015	02/13/2015

(4 samples)

Executive Summary

ERM NC, Inc.

Lot Number: QB13005

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DW-2D	Aqueous	Trichloroethene	8260B	1.7		ug/L	7
002	DW-6	Aqueous	Chloroform	8260B	0.15	J	ug/L	9
002	DW-6	Aqueous	cis-1,2-Dichloroethene	8260B	0.81	J	ug/L	9
002	DW-6	Aqueous	Tetrachloroethene	8260B	0.55	J	ug/L	10
002	DW-6	Aqueous	Trichloroethene	8260B	3.6		ug/L	10
003	DW-6D	Aqueous	Chloroform	8260B	0.45	J	ug/L	12
003	DW-6D	Aqueous	Tetrachloroethene	8260B	1.8		ug/L	13
003	DW-6D	Aqueous	Trichloroethene	8260B	3.0		ug/L	13
003	DW-6D	Aqueous	Xylenes (total)	8260B	0.40	J	ug/L	13

(9 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.
Laboratory ID: QB13005-001
Description: DW-2D
Matrix: Aqueous
Date Sampled: 02/12/2015 1600
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	02/18/2015 1134	DCS		68095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-001
Description: DW-2D
Matrix: Aqueous
Date Sampled: 02/12/2015 1600
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1137	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-001
Description: DW-2D
Matrix: Aqueous
Date Sampled: 02/12/2015 1600
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1137	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	1.7		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.
Laboratory ID: QB13005-002
Description: DW-6
Matrix: Aqueous
Date Sampled: 02/12/2015 1245
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	02/18/2015 1158	DCS		68095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-002
Description: DW-6
Matrix: Aqueous
Date Sampled: 02/12/2015 1245
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1159	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	0.15	J	1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.81	J	1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-002
Description: DW-6
Matrix: Aqueous
Date Sampled: 02/12/2015 1245
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1159	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.55	J	1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	3.6		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: ERM NC, Inc.
Laboratory ID: QB13005-003
Description: DW-6D
Matrix: Aqueous
Date Sampled: 02/12/2015 1115
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	02/18/2015 1221	DCS		68095

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	0.48	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	40-170

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-003
Description: DW-6D
Matrix: Aqueous
Date Sampled: 02/12/2015 1115
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1221	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	0.45	J	1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-003
Description: DW-6D
Matrix: Aqueous
Date Sampled: 02/12/2015 1115
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1221	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.8		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	3.0		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.40	J	1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-004
Description: TRIP BLANK
Matrix: Aqueous
Date Sampled: 02/12/2015
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1115	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acetone	67-64-1	8260B	ND		20	6.7	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
Bromobenzene	108-86-1	8260B	ND		1.0	0.027	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	0.16	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.33	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.66	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.80	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
n-Butylbenzene	104-51-8	8260B	ND		1.0	0.21	ug/L	1
sec-Butylbenzene	135-98-8	8260B	ND		1.0	0.070	ug/L	1
tert-Butylbenzene	98-06-6	8260B	ND		1.0	0.080	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.14	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.33	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.47	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.070	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.35	ug/L	1
2-Chlorotoluene	95-49-8	8260B	ND		1.0	0.060	ug/L	1
4-Chlorotoluene	106-43-4	8260B	ND		1.0	0.12	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.33	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.30	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.33	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.33	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.33	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.20	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.13	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.16	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.12	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.21	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.19	ug/L	1
1,3-Dichloropropane	142-28-9	8260B	ND		1.0	0.12	ug/L	1
2,2-Dichloropropane	594-20-7	8260B	ND		1.0	0.13	ug/L	1
1,1-Dichloropropene	563-58-6	8260B	ND		2.0	0.85	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.092	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.11	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1.0	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		100	19	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	0.27	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.030	ug/L	1
p-Isopropyltoluene	99-87-6	8260B	ND		1.0	0.070	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	0.31	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.33	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: ERM NC, Inc.
Laboratory ID: QB13005-004
Description: TRIP BLANK
Matrix: Aqueous
Date Sampled: 02/12/2015
Date Received: 02/13/2015

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2015 1115	EH1		68205

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
n-Propylbenzene	103-65-1	8260B	ND		1.0	0.070	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.12	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	0.20	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.16	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.13	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
1,2,3-Trichlorobenzene	87-61-6	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.51	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.074	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.21	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.18	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.30	ug/L	1
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	0.33	ug/L	1
1,2,4-Trimethylbenzene	95-63-6	8260B	ND		1.0	0.33	ug/L	1
1,3,5-Trimethylbenzene	108-67-8	8260B	ND		1.0	0.33	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	1.3	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.054	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1
m+p - Xylenes	179601-23-1	8260B	ND		1.0	0.50	ug/L	1
o - Xylenes	95-47-6	8260B	ND		1.0	0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: QQ68095-001
Batch: 68095
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	0.48	ug/L	02/18/2015 1101

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: QQ68095-002
Batch: 68095
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	63		1	126	50-150	02/18/2015 1004

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - Duplicate

Sample ID: QB13005-001DU
Batch: 68095
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
1,4-Dioxane	ND	ND		1	0.00	20	02/18/2015 1245

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MS

Sample ID: QB13005-002MS
Batch: 68095
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	ND	50	64		1	127	43-173	02/18/2015 1309

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ68205-001
Batch: 68205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Acetone	ND		1	20	6.7	ug/L	02/19/2015 1043
Benzene	ND		1	1.0	0.13	ug/L	02/19/2015 1043
Bromobenzene	ND		1	1.0	0.027	ug/L	02/19/2015 1043
Bromochloromethane	ND		1	1.0	0.16	ug/L	02/19/2015 1043
Bromodichloromethane	ND		1	1.0	0.33	ug/L	02/19/2015 1043
Bromoform	ND		1	1.0	0.66	ug/L	02/19/2015 1043
Bromomethane (Methyl bromide)	ND		1	2.0	0.80	ug/L	02/19/2015 1043
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/19/2015 1043
n-Butylbenzene	ND		1	1.0	0.21	ug/L	02/19/2015 1043
sec-Butylbenzene	ND		1	1.0	0.070	ug/L	02/19/2015 1043
tert-Butylbenzene	ND		1	1.0	0.080	ug/L	02/19/2015 1043
Carbon tetrachloride	ND		1	1.0	0.14	ug/L	02/19/2015 1043
Chlorobenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
Chloroethane	ND		1	2.0	0.47	ug/L	02/19/2015 1043
Chloroform	ND		1	1.0	0.070	ug/L	02/19/2015 1043
Chloromethane (Methyl chloride)	ND		1	1.0	0.35	ug/L	02/19/2015 1043
4-Chlorotoluene	ND		1	1.0	0.12	ug/L	02/19/2015 1043
2-Chlorotoluene	ND		1	1.0	0.060	ug/L	02/19/2015 1043
Dibromochloromethane	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,2-Dibromoethane (EDB)	ND		1	1.0	0.30	ug/L	02/19/2015 1043
1,2-Dichlorobenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,4-Dichlorobenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,3-Dichlorobenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
Dichlorodifluoromethane	ND		1	2.0	0.20	ug/L	02/19/2015 1043
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	02/19/2015 1043
1,1-Dichloroethane	ND		1	1.0	0.13	ug/L	02/19/2015 1043
cis-1,2-Dichloroethene	ND		1	1.0	0.12	ug/L	02/19/2015 1043
trans-1,2-Dichloroethene	ND		1	1.0	0.21	ug/L	02/19/2015 1043
1,1-Dichloroethene	ND		1	1.0	0.16	ug/L	02/19/2015 1043
2,2-Dichloropropane	ND		1	1.0	0.13	ug/L	02/19/2015 1043
1,2-Dichloropropane	ND		1	1.0	0.19	ug/L	02/19/2015 1043
1,3-Dichloropropane	ND		1	1.0	0.12	ug/L	02/19/2015 1043
1,1-Dichloropropene	ND		1	2.0	0.85	ug/L	02/19/2015 1043
trans-1,3-Dichloropropene	ND		1	1.0	0.11	ug/L	02/19/2015 1043
cis-1,3-Dichloropropene	ND		1	1.0	0.092	ug/L	02/19/2015 1043
Diisopropyl ether (IPE)	ND		1	1.0	0.40	ug/L	02/19/2015 1043
Ethanol	ND		1	100	19	ug/L	02/19/2015 1043
Ethylbenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
2-Hexanone	ND		1	10	0.27	ug/L	02/19/2015 1043
Isopropylbenzene	ND		1	1.0	0.030	ug/L	02/19/2015 1043
p-Isopropyltoluene	ND		1	1.0	0.070	ug/L	02/19/2015 1043
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/19/2015 1043
4-Methyl-2-pentanone	ND		1	10	0.31	ug/L	02/19/2015 1043
Methylene chloride	ND		1	1.0	0.33	ug/L	02/19/2015 1043

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: QQ68205-001
Batch: 68205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	1.0	0.40	ug/L	02/19/2015 1043
n-Propylbenzene	ND		1	1.0	0.070	ug/L	02/19/2015 1043
Styrene	ND		1	1.0	0.12	ug/L	02/19/2015 1043
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.16	ug/L	02/19/2015 1043
1,1,1,2-Tetrachloroethane	ND		1	1.0	0.20	ug/L	02/19/2015 1043
Tetrachloroethene	ND		1	1.0	0.13	ug/L	02/19/2015 1043
Toluene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,2,3-Trichlorobenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,2,4-Trichlorobenzene	ND		1	1.0	0.51	ug/L	02/19/2015 1043
1,1,1-Trichloroethane	ND		1	1.0	0.074	ug/L	02/19/2015 1043
1,1,2-Trichloroethane	ND		1	1.0	0.21	ug/L	02/19/2015 1043
Trichloroethene	ND		1	1.0	0.18	ug/L	02/19/2015 1043
Trichlorofluoromethane	ND		1	1.0	0.30	ug/L	02/19/2015 1043
1,2,3-Trichloropropane	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,3,5-Trimethylbenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
1,2,4-Trimethylbenzene	ND		1	1.0	0.33	ug/L	02/19/2015 1043
Vinyl acetate	ND		1	5.0	1.3	ug/L	02/19/2015 1043
Vinyl chloride	ND		1	1.0	0.054	ug/L	02/19/2015 1043
o - Xylenes	ND		1	1.0	0.50	ug/L	02/19/2015 1043
m+p - Xylenes	ND		1	1.0	0.50	ug/L	02/19/2015 1043
Xylenes (total)	ND		1	1.0	0.33	ug/L	02/19/2015 1043

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ68205-002
Batch: 68205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	102	60-140	02/19/2015 0938
Benzene	50	50		1	101	70-130	02/19/2015 0938
Bromobenzene	50	48		1	97	70-130	02/19/2015 0938
Bromochloromethane	50	50		1	100	70-130	02/19/2015 0938
Bromodichloromethane	50	54		1	108	70-130	02/19/2015 0938
Bromoform	50	51		1	103	70-130	02/19/2015 0938
Bromomethane (Methyl bromide)	50	49		1	98	60-140	02/19/2015 0938
2-Butanone (MEK)	100	110		1	106	60-140	02/19/2015 0938
n-Butylbenzene	50	50		1	100	70-130	02/19/2015 0938
sec-Butylbenzene	50	50		1	101	70-130	02/19/2015 0938
tert-Butylbenzene	50	50		1	100	70-130	02/19/2015 0938
Carbon tetrachloride	50	50		1	101	70-130	02/19/2015 0938
Chlorobenzene	50	49		1	97	70-130	02/19/2015 0938
Chloroethane	50	48		1	96	42-163	02/19/2015 0938
Chloroform	50	50		1	99	70-130	02/19/2015 0938
Chloromethane (Methyl chloride)	50	45		1	90	60-140	02/19/2015 0938
4-Chlorotoluene	50	49		1	98	70-130	02/19/2015 0938
2-Chlorotoluene	50	49		1	98	70-130	02/19/2015 0938
Dibromochloromethane	50	52		1	104	70-130	02/19/2015 0938
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	02/19/2015 0938
1,2-Dichlorobenzene	50	50		1	99	70-130	02/19/2015 0938
1,4-Dichlorobenzene	50	48		1	95	70-130	02/19/2015 0938
1,3-Dichlorobenzene	50	48		1	96	70-130	02/19/2015 0938
Dichlorodifluoromethane	50	44		1	88	60-140	02/19/2015 0938
1,2-Dichloroethane	50	51		1	101	70-130	02/19/2015 0938
1,1-Dichloroethane	50	52		1	103	70-130	02/19/2015 0938
cis-1,2-Dichloroethene	50	53		1	106	70-130	02/19/2015 0938
trans-1,2-Dichloroethene	50	53		1	106	70-130	02/19/2015 0938
1,1-Dichloroethene	50	50		1	99	70-130	02/19/2015 0938
2,2-Dichloropropane	50	55		1	111	70-130	02/19/2015 0938
1,2-Dichloropropane	50	50		1	99	70-130	02/19/2015 0938
1,3-Dichloropropane	50	50		1	101	70-130	02/19/2015 0938
1,1-Dichloropropene	50	51		1	101	70-130	02/19/2015 0938
trans-1,3-Dichloropropene	50	51		1	102	70-130	02/19/2015 0938
cis-1,3-Dichloropropene	50	53		1	105	70-130	02/19/2015 0938
Diisopropyl ether (IPE)	50	54		1	107	70-130	02/19/2015 0938
Ethanol	5000	6900		1	139	60-140	02/19/2015 0938
Ethylbenzene	50	50		1	101	70-130	02/19/2015 0938
2-Hexanone	100	100		1	100	60-140	02/19/2015 0938
Isopropylbenzene	50	50		1	100	70-130	02/19/2015 0938
p-Isopropyltoluene	50	51		1	103	70-130	02/19/2015 0938
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	02/19/2015 0938
4-Methyl-2-pentanone	100	100		1	104	60-140	02/19/2015 0938
Methylene chloride	50	52		1	105	70-130	02/19/2015 0938

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: QQ68205-002
Batch: 68205
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	50	50		1	99	70-130	02/19/2015 0938
n-Propylbenzene	50	50		1	100	70-130	02/19/2015 0938
Styrene	50	50		1	100	70-130	02/19/2015 0938
1,1,2,2-Tetrachloroethane	50	55		1	109	60-140	02/19/2015 0938
1,1,1,2-Tetrachloroethane	50	50		1	101	70-130	02/19/2015 0938
Tetrachloroethene	50	48		1	96	70-130	02/19/2015 0938
Toluene	50	49		1	99	70-130	02/19/2015 0938
1,2,3-Trichlorobenzene	50	47		1	94	70-130	02/19/2015 0938
1,2,4-Trichlorobenzene	50	47		1	95	70-130	02/19/2015 0938
1,1,1-Trichloroethane	50	52		1	104	70-130	02/19/2015 0938
1,1,2-Trichloroethane	50	48		1	96	70-130	02/19/2015 0938
Trichloroethene	50	50		1	100	70-130	02/19/2015 0938
Trichlorofluoromethane	50	47		1	94	70-130	02/19/2015 0938
1,2,3-Trichloropropane	50	48		1	96	70-130	02/19/2015 0938
1,3,5-Trimethylbenzene	50	52		1	104	70-130	02/19/2015 0938
1,2,4-Trimethylbenzene	50	50		1	100	70-130	02/19/2015 0938
Vinyl acetate	50	62		1	124	60-140	02/19/2015 0938
Vinyl chloride	50	46		1	92	70-130	02/19/2015 0938
o - Xylenes	50	50		1	100	70-130	02/19/2015 0938
m+p - Xylenes	50	49		1	97	70-130	02/19/2015 0938
Xylenes (total)	100	99		1	99	70-130	02/19/2015 0938

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 45896

Client	ERM
Address	15720 BRIXHAM HILL AVE
City	CHARLOTTE
State	NC
Zip Code	28277
Project Name	ECI ELON
Project No.	0235393
P.O. No.	
Report to Contact	ED HOLLFIELD
Sampler's Signature	x Tom Naumann
Printed Name	TOM NAUMANN
Telephone No. / E-mail	
Quote No.	
Page	1 of 1

Analysis (Attach list if more space is needed): VOC'S 8260B; 1,4-DIOXANE

QB13005

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC'S 8260B	1,4-DIOXANE	Remarks / Cooler I.D.
DW-2D	2/12/15	1600	G	X						6			3	3	NOTE: WE NEED
DW-6	2/12/15	1245	G	X						6			3	3	LOW DETECTION
DW-6D	2/12/15	1115	G	X						6			3	3	LIMITS FOR THESE
TRIP BLANK				X						2			2		SAMPLES.
TEMP BLANK															THANKS!

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☑ Rush (Specify) 5 DAY TAT

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☑ Unknown

QC Requirements (Specify):

1. Relinquished by: Tom Naumann	Date 2/12/15	Time 1745	1. Received by: FED EX	Date 2/12/15	Time 1745
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Fedex	Date 2-13-15	Time 0945	4. Laboratory received by: Kelly	Date 2-13-15	Time 0945

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack Receipt Temp. 1.4 °C 1836

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 16

Page 1 of 1
Replaces Date: 07/15/14
Effective Date: 11/07/14

Sample Receipt Checklist (SRC)

Client: ERM Cooler Inspected by/date: KWP / 2-3-15 Lot #: QB13005

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐		1. Were custody seals present on the cooler?
Yes ☑	No ☐	NA ☐	2. If custody seals were present, were they intact and unbroken?

Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt:
1830 / 1.4 / 1.4 °C / / °C / / °C / / °C
Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: #4 IR Gun Correction Factor: 0 °C
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Yes ☐	No ☐	NA ☑ KWP 2-3-15	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☑	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐	KWP 2-3-15	5. Were proper custody procedures (relinquished/received) followed?
Yes ☑	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☐	No ☐	NA ☑	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) using SR # _____.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L (If #21 is No)

SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____
Sample(s) _____ were not received at a pH of <2 and were adjusted accordingly using SR# _____

Sample labels applied by: KWP Verified by: _____ Date: 2-3-15

Comments: