



Geosyntec  
consultants

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**APPENDIX I**

Laboratory Data – Seeps

## ANALYTICAL RESULTS

Prepared by:

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2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

GES, Inc.  
Suite A  
1350 Blair Dr  
Odenton MD 21113

August 22, 2014

Project: NRG PRGS

Submittal Date: 08/15/2014  
Group Number: 1496490  
PO Number: NRG PRGS  
Release Number: 0402859-01-877  
State of Sample Origin: VA

Client Sample Description

Seep B Grab Groundwater  
Seep D Grab Groundwater

Lancaster Labs (LL) #

7567321  
7567322

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC    GES Inc.  
COPY TO  
ELECTRONIC    GES, Inc.-MD  
COPY TO

Attn: Andrea Taylorson-Collins

Attn: Report Distribution

Respectfully Submitted,



Lynn M. Frederiksen  
Principal Specialist Group Leader

(717) 556-7255

Sample Description: Seep B Grab Groundwater

LL Sample # WW 7567321  
LL Group # 1496490  
Account # 08390

Project Name: NRG PRGS

Collected: 08/13/2014 17:52 by PR

GES, Inc.

Suite A

Submitted: 08/15/2014 16:08

1350 Blair Dr

Reported: 08/22/2014 12:38

Odenton MD 21113

FAXSB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons</b>	<b>SW-846 8015C Feb 2007 Rev 3</b>	<b>mg/l</b>	<b>mg/l</b>	
13163	DRO C10-C28	n.a.	0.32	0.042	1
	<b>Wet Chemistry</b>	<b>SM 2510 B-1997</b>	<b>umhos/cm</b>	<b>umhos/cm</b>	
12146	Specific Conductance	n.a.	822	1.7	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13163	DRO 8015C/D, MicroExt.	SW-846 8015C Feb 2007 Rev 3	1	142280019A	08/18/2014 17:16	Christine E Dolman	1
13175	MicroExt. 3511 (8015C/D)	SW-846 3511	1	142280019A	08/17/2014 14:20	Wanda F Oswald	1
12146	Specific Conductance	SM 2510 B-1997	1	14233002101A	08/21/2014 13:04	Michele L Graham	1

Sample Description: Seep D Grab Groundwater

LL Sample # WW 7567322  
LL Group # 1496490  
Account # 08390

Project Name: NRG PRGS

Collected: 08/13/2014 17:20 by PR

GES, Inc.

Suite A

Submitted: 08/15/2014 16:08

1350 Blair Dr

Reported: 08/22/2014 12:38

Odenton MD 21113

FAXSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
	<b>GC Petroleum Hydrocarbons</b>	<b>SW-846 8015C Feb 2007 Rev 3</b>	<b>mg/l</b>	<b>mg/l</b>	
13163	DRO C10-C28	n.a.	N.D.	0.042	1
	<b>Wet Chemistry</b>	<b>SM 2510 B-1997</b>	<b>umhos/cm</b>	<b>umhos/cm</b>	
12146	Specific Conductance	n.a.	769	1.7	1

### General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13163	DRO 8015C/D, MicroExt.	SW-846 8015C Feb 2007 Rev 3	1	142280019A	08/18/2014 17:39	Christine E Dolman	1
13175	MicroExt. 3511 (8015C/D)	SW-846 3511	1	142280019A	08/17/2014 14:20	Wanda F Oswald	1
12146	Specific Conductance	SM 2510 B-1997	1	14233002101A	08/21/2014 13:06	Michele L Graham	1

## Quality Control Summary

Client Name: GES, Inc.  
Reported: 08/22/14 at 12:38 PM

Group Number: 1496490

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 142280019A DRO C10-C28	Sample number(s): 7567321-7567322 N.D.	0.042	mg/l	95	95	56-122	1	20
Batch number: 14233002101A Specific Conductance	Sample number(s): 7567321-7567322 N.D.	1.7	umhos/c m	103		96-104		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 14233002101A Specific Conductance	Sample number(s): 7567321-7567322					BKG: P571006 853	844	1	5

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: DRO 8015C/D, MicroExt.  
Batch number: 142280019A  
Orthoterphenyl

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7567321	119
7567322	124
Blank	124
LCS	121
LCSD	116

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Limits: 50-150

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



Client: GES

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Timestamp: 08/15/2014 16:08  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: VA

**Arrival Condition Summary**

Shipping Container Sealed:	<u>No</u>	Total Trip Blank Qty:	<u>0</u>
Custody Seal Present:	<u>No</u>	Trip Blank Type:	<u>N/A</u>
Custody Seal Intact:	<u>N/A</u>	Air Quality Samples Present:	<u>No</u>
Samples Chilled:	<u>Yes</u>	Air Quality Flow Controllers Present:	<u>N/A</u>
Paperwork Enclosed:	<u>Yes</u>	Flow Controller Quantity:	<u>0</u>
Samples Intact:	<u>Yes</u>	Air Quality Returns:	<u>N/A</u>
Missing Samples:	<u>No</u>		
Extra Samples:	<u>No</u>		
Discrepancy in Container Qty on COC:	<u>No</u>		
Sample IDs on COC match Containers:	<u>Yes</u>		
Sample Date/Times match COC:	<u>Yes</u>		
VOA Vial Headspace $\geq$ 6mm:	<u>No</u>		
VOA IDs ( $\geq$ 6mm):	<u>N/A</u>		

Unpacked by Wesley Miller (2308) at 17:03 on 08/15/2014

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	<u>Samples</u> <u>Collected Same</u> <u>Day as Receipt?</u>	Elevated Temp?
1	DT121	1.7	DT	Wet	Y	Bagged	N	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

**ppm** parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

**ppb** parts per billion

**Dry weight basis** Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns  $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

**Inorganic Qualifiers**

- B** Value is  $<$ CRDL, but  $\geq$ IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- \*** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA  $<0.995$

**Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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