de maximis, inc.

1550 Pond Road
Suite 120
Allentown, PA 18104
(610) 435-1151
(610) 435-8459 FAX

May 2, 2018

Via U.S. Mail

Mr. Dustin Armstrong
PADEP
2 East Main Street
Norristown, PA 19401

RE: Boarhead Farms Superfund Site OU-1
EPA Docket No. III-2000-01-DC
1st Quarter 2018 Effluent Discharge Monitoring Report
Groundwater Collection and Treatment System

Dear Mr. Armstrong:

Enclosed please find the completed Discharge Monitoring Report (DMR) forms for the 1st Quarter 2018 effluent samples from the groundwater treatment plant at the Boarhead Farms Site (Site). These DMR forms are being submitted on behalf of the Respondents in the above referenced EPA docket, and other companies contributing to the funding of the OU-1 remedy. The DMRs are submitted based on PADEP's December 29, 2000 revised Permit with the exception of collecting a 24-hour composite sample for inorganic constituents. In a letter dated March 28, 2001, EPA recommended that the sampling frequency be changed to a composite sample over an 8-hour period.

I would like to call to your attention the following, relative to these DMRs for the 1st Quarter 2018:

- VOCs were not detected above permit levels.
- 6 of the 6 constituents designated "Monitor and Report" were not detected in the effluent.

Please contact Geoff Seibel or me with any questions at (610) 435-1151.

Sincerely,

de maximis, inc.

R. Craig Coslett
Project Coordinator for OU 1

Mr. Dustin Armstrong
May 2, 2018
Page 2

Enclosures: DMR Forms for 1st Quarter 2018
Test America Analytical Reports

CC: Chris Sklaney, USEPA
Boarhead Farms OU1 Performing Parties
Peter Randazzo, Brown and Caldwell
D. Jelinek, GES

File: 4087 /dmr 1st QDMR 2018

PAPER

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME Boarhead Farms c/o de maximis, inc.

ADDRESS 1550 Pond Rd, Suite 120
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FACILITY LOCATION Groundwater Treatment System
1310 Lonely Cottage Rd 18972

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
PAXXXX	001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	18	01	01	TO	18	03	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW (MGD)	SAMPLE MEASUREMENT	0.034854	0.060247	MGD	XXXX	XXXX	XXXX	XXXX		CONT	REC
	PERMIT REQUIREMENT	MONITOR	MONITOR		XXXX	XXXX	XXXX			CONT	REC
ANTIMONY	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0087	<0.0087	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.015	0.031			1/QTR	8 HC
ARSENIC	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0096	<0.0096	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	8 HC
CADMIUM	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0018	<0.0018	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0042	0.0084			1/QTR	8 HC
CHROMIUM HEXAVALENT	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0010	<0.0010	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.011	0.023			1/QTR	8 HC
COPPER	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0040	<0.0040	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.016	0.033			1/QTR	8 HC
LEAD	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0060	<0.0060	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.007	0.014			1/QTR	8 HC

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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NICKEL	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	0.0181	0.0181	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.09	0.18			1/QTR	8 HC
ZINC	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0065	<0.0065	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.157	0.315			1/QTR	8 HC
MANGENESE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	0.0433	0.0433	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	1.12	2.24			1/QTR	8 HC
ALUMINUM	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0894	<0.0894	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.623	1.25			1/QTR	8 HC
COBALT	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0017	<0.0017	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.021	0.043			1/QTR	8 HC
IRON/TOTAL	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0805	<0.0805	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	1.68	3.36			1/QTR	8 HC
MERCURY	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.000050	<0.000050	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	ND	ND			1/QTR	8 HC

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
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SILVER	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0024	<0.0024	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.008	0.017			1/QTR	8 HC
CYANIDE, FREE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0040	<0.0040	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.005	0.011			1/QTR	8 HC
2,4,6-TRICHLOROPHENOL	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0007	<0.0007	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0038	0.0076			1/QTR	GRAB
BENZENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0022	0.004			1/QTR	GRAB
1,2-DICHLOROETHANE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0007	0.0014			1/QTR	GRAB
1,1-DICHLOROETHYLENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	ND	0.0002			1/QTR	GRAB
METHYLENE CHLORIDE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0002	<0.0002	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0086	0.017			1/QTR	GRAB

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TETRACHLOROETHYLENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0015	0.003			1/QTR	GRAB
TOLUENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0023	0.0046			1/QTR	GRAB
1,1,1-TRICHLOROETHANE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	0.0001	0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.017	0.034			1/QTR	GRAB
TRICHLOROETHYLENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	0.0005	0.0005	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.005	0.01			1/QTR	GRAB
VINYL CHLORIDE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	0.0036	0.0072			1/QTR	GRAB
ACETONE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0030	<0.0030	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	GRAB
XYLENES, TOTAL	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	GRAB

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1,2-DICHLOROBENZENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0001	<0.0001	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	GRAB
NAPHTHALENE	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0002	<0.0002	MG/L		1/QTR	GRAB
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	GRAB
CHROMIUM, TRIVALENT	SAMPLE MEASUREMENT	XXXX	XXXX	XXXX	XXXX	<0.0033	<0.0033	MG/L		1/QTR	8 HC
	PERMIT REQUIREMENT	XXXX	XXXX		XXXX	MONITOR/ REPORT	MONITOR/ REPORT			1/QTR	8 HC
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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	PERMIT REQUIREMENT										
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Attachment B – Laboratory Analytical Results and Chain-of-Custody Documentation

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.-PA
Suite 500
440 Creamery Way
Exton PA 19341

Report Date: April 05, 2018 17:49

Project: Boarhead Farms

Account #: 02575
Group Number: 1923148
PO Number: 0204215-40-001
Release Number: ORG # 1402
State of Sample Origin: PA

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	GES, Inc.-PA	Attn: Derek Jelinek
Electronic Copy To	GES Inc.	Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
Effluent Composite Groundwater	03/23/2018 10:45	9521215
Effluent Grab Groundwater	03/23/2018 10:55	9521216
Midfluent Grab Groundwater	03/23/2018 11:05	9521217
Influent Grab Groundwater	03/23/2018 11:15	9521218
OBEW & BREW Influent Grab Groundwater	03/23/2018 11:25	9521219
Trip Blank Water	03/23/2018 11:35	9521220

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-4766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **Effluent Composite Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521215
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:45

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals		**EPA 200.7 rev 4.4**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	N.D. B	0.0894	1
07044	Antimony	7440-36-0	N.D.	0.0087	1
07035	Arsenic	7440-38-2	N.D.	0.0096	1
07049	Cadmium	7440-43-9	N.D.	0.0018	1
07052	Cobalt	7440-48-4	N.D.	0.0017	1
07053	Copper	7440-50-8	N.D.	0.0040	1
01754	Iron	7439-89-6	N.D.	0.0805	1
07055	Lead	7439-92-1	N.D.	0.0060	1
07058	Manganese	7439-96-5	0.0433	0.0016	1
07061	Nickel	7440-02-0	0.0181	0.0040	1
07066	Silver	7440-22-4	N.D.	0.0024	1
07072	Zinc	7440-66-6	N.D.	0.0065	1
		EPA 245.1 rev 3	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	1
Wet Chemistry		**SM 4500-CN E-2011**	**mg/l**	**mg/l**	
00241	Cyanide (Free)[1]	n.a.	N.D.	0.0040	1
		SM 3500-Cr B-2011	**mg/l**	**mg/l**	
01446	Hexavalent Chromium	18540-29-9	N.D.	0.0010	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

This sample was field filtered for Hexavalent Chromium.

[1] = This analyte was not on the laboratory's PA DEP Scope of Accreditation at the time of analysis.

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
01743	Aluminum	EPA 200.7 rev 4.4	1	180860571601	04/02/2018 07:18	Jonathan J Allen	1
07044	Antimony	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07035	Arsenic	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07049	Cadmium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07052	Cobalt	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07053	Copper	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
01754	Iron	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07055	Lead	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07058	Manganese	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07061	Nickel	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
07066	Silver	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1

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Analysis Report

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Sample Description: **Effluent Composite Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521215
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:45

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07072	Zinc	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:01	Elaine F Stoltzfus	1
00259	Mercury	EPA 245.1 rev 3	1	180860571402	03/28/2018 07:10	Damary Valentin	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	180860571601	03/27/2018 23:05	Denise L Trimby	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	180860571402	03/28/2018 01:50	Denise L Trimby	1
00241	Cyanide (Free)	SM 4500-CN E-2011	1	18086114101A	03/27/2018 20:13	Samuel J Weaver	1
01446	Hexavalent Chromium	SM 3500-Cr B-2011	1	18082144602A	03/23/2018 23:55	Hannah M Royer	1

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Analysis Report

Sample Description: **Effluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521216
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:55

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	1
02898	Benzene	71-43-2	N.D.	0.1	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	1
02898	Bromoform	75-25-2	N.D.	0.1	1
02898	Bromomethane	74-83-9	N.D.	0.1	1
02898	2-Butanone	78-93-3	N.D.	1.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	1
02898	Chloroethane	75-00-3	N.D.	0.1	1
02898	Chloroform	67-66-3	N.D.	0.1	1
02898	Chloromethane	74-87-3	N.D.	0.2	1
02898	Cyclohexane	110-82-7	N.D.	0.1	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	1
02898	cis-1,2-Dichloroethene	156-59-2	0.4 J	0.1	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	1
02898	1,4-Dioxane	123-91-1	N.D.	20	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	1
02898	Freon 113	76-13-1	N.D.	0.2	1
02898	2-Hexanone	591-78-6	N.D.	1.0	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	1
02898	Methyl Acetate	79-20-9	N.D.	0.3	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	1
02898	4-Methyl-2-pentanone	108-10-1	N.D.	1.0	1
02898	Methylcyclohexane	108-87-2	N.D.	0.1	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	1
02898	Styrene	100-42-5	N.D.	0.1	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	1
02898	Toluene	108-88-3	N.D.	0.1	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	1
02898	1,1,1-Trichloroethane	71-55-6	0.1 J	0.1	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	1
02898	Trichloroethene	79-01-6	0.5	0.1	1

Sample Description: **Effluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521216
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:55

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	1
02898	m+p-Xylene	179601-23-1	N.D.	0.1	1
02898	o-Xylene	95-47-6	N.D.	0.1	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	1
GC/MS Semivolatiles	**EPA 625**		ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.7	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Carbazole	86-74-8	N.D.	0.2	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	4-Chloroaniline	106-47-8	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	Dibenzofuran	132-64-9	N.D.	0.2	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	N.D.	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.7	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	0.9	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	9	1
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1

Sample Description: **Effluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521216
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:55

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**EPA 625**		**ug/l**	**ug/l**	
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	0.9	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.7	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	2-Methylnaphthalene	91-57-6	N.D.	0.3	1
10334	2-Methylphenol	95-48-7	N.D.	0.3	1
10334	4-Methylphenol	106-44-5	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	2-Nitroaniline	88-74-4	N.D.	0.3	1
10334	3-Nitroaniline	99-09-2	N.D.	0.4	1
10334	4-Nitroaniline	100-01-6	N.D.	0.4	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	N.D.	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,5-Trichlorophenol	95-95-4	N.D.	0.4	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0033	1
02828	Trivalent Chromium waters'	16065-83-1	N.D.	0.0033	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.				
Wet Chemistry	**SM 3500-Cr B-2011**		**mg/l**	**mg/l**	
01446	Hexavalent Chromium	18540-29-9	N.D.	0.0010	1

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Analysis Report

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Sample Description: **Effluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521216
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 10:55

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

This sample was field filtered for Hexavalent Chromium.

[1] = This analyte was not on the laboratory's PA DEP Scope of Accreditation at the time of analysis.

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
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/03/2018 23:32	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C180931AA	04/03/2018 23:32	Matthew S Krause	1
10334	TCL 3.2 SVOCs	EPA 625	1	18088WAI625	04/02/2018 20:41	Anthony P Bauer	1
08108	625 Water Extraction	EPA 625	1	18088WAI625	03/29/2018 21:00	Karen L Beyer	1
07051	Chromium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:37	Elaine F Stoltzfus	1
02828	Trivalent Chromium waters	EPA 200.7 rev 4.4	1	180880282801	03/29/2018 12:27	Nina C Haller	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	180860571601	03/27/2018 23:05	Denise L Trimby	1
01446	Hexavalent Chromium	SM 3500-Cr B-2011	1	18082144602A	03/23/2018 23:55	Hannah M Royer	1

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Analysis Report

Sample Description: **Midfluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521217
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	3.0	1
02898	Benzene	71-43-2	N.D.	0.1	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	1
02898	Bromoform	75-25-2	N.D.	0.1	1
02898	Bromomethane	74-83-9	N.D.	0.1	1
02898	2-Butanone	78-93-3	N.D.	1.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	1
02898	Chloroethane	75-00-3	N.D.	0.1	1
02898	Chloroform	67-66-3	N.D.	0.1	1
02898	Chloromethane	74-87-3	N.D.	0.2	1
02898	Cyclohexane	110-82-7	N.D.	0.1	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	1
02898	1,4-Dioxane	123-91-1	N.D.	20	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	1
02898	Freon 113	76-13-1	N.D.	0.2	1
02898	2-Hexanone	591-78-6	N.D.	1.0	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	1
02898	Methyl Acetate	79-20-9	N.D.	0.3	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	1
02898	4-Methyl-2-pentanone	108-10-1	N.D.	1.0	1
02898	Methylcyclohexane	108-87-2	N.D.	0.1	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	1
02898	Styrene	100-42-5	N.D.	0.1	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	1
02898	Toluene	108-88-3	N.D.	0.1	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	1
02898	Trichloroethene	79-01-6	N.D.	0.1	1

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Sample Description: **Midfluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521217
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	1
02898	m+p-Xylene	179601-23-1	N.D.	0.1	1
02898	o-Xylene	95-47-6	N.D.	0.1	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	1
GC/MS Semivolatiles	**EPA 625**		ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Carbazole	86-74-8	N.D.	0.2	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	4-Chloroaniline	106-47-8	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	Dibenzofuran	132-64-9	N.D.	0.2	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	N.D.	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	1	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	10	1
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1

Sample Description: **Midfluent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521217
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**EPA 625**		**ug/l**	**ug/l**	
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	1	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	2-Methylnaphthalene	91-57-6	N.D.	0.3	1
10334	2-Methylphenol	95-48-7	N.D.	0.3	1
10334	4-Methylphenol	106-44-5	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	2-Nitroaniline	88-74-4	N.D.	0.3	1
10334	3-Nitroaniline	99-09-2	N.D.	0.4	1
10334	4-Nitroaniline	100-01-6	N.D.	0.4	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	N.D.	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,5-Trichlorophenol	95-95-4	N.D.	0.4	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

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
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/03/2018 23:54	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C180931AA	04/03/2018 23:54	Matthew S Krause	1
10334	TCL 3.2 SVOCs	EPA 625	1	18088WAI625	04/02/2018 21:05	Anthony P Bauer	1
08108	625 Water Extraction	EPA 625	1	18088WAI625	03/29/2018 21:00	Karen L Beyer	1

Sample Description: **Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521218
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	30	10
02898	Benzene	71-43-2	N.D.	1.0	10
02898	Bromochloromethane	74-97-5	N.D.	1.0	10
02898	Bromodichloromethane	75-27-4	N.D.	1.0	10
02898	Bromoform	75-25-2	N.D.	1.0	10
02898	Bromomethane	74-83-9	N.D.	1.0	10
02898	2-Butanone	78-93-3	N.D.	10	10
02898	Carbon Disulfide	75-15-0	N.D.	4.0	10
02898	Carbon Tetrachloride	56-23-5	N.D.	1.0	10
02898	Chlorobenzene	108-90-7	N.D.	1.0	10
02898	Chloroethane	75-00-3	N.D.	1.0	10
02898	Chloroform	67-66-3	N.D.	1.0	10
02898	Chloromethane	74-87-3	N.D.	2.0	10
02898	Cyclohexane	110-82-7	N.D.	1.0	10
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2.0	10
02898	Dibromochloromethane	124-48-1	N.D.	1.0	10
02898	1,2-Dibromoethane	106-93-4	N.D.	1.0	10
02898	1,2-Dichlorobenzene	95-50-1	4.9 J	1.0	10
02898	1,3-Dichlorobenzene	541-73-1	N.D.	1.0	10
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	10
02898	Dichlorodifluoromethane	75-71-8	N.D.	1.0	10
02898	1,1-Dichloroethane	75-34-3	16	1.0	10
02898	1,2-Dichloroethane	107-06-2	N.D.	1.0	10
02898	1,1-Dichloroethene	75-35-4	19	1.0	10
02898	cis-1,2-Dichloroethene	156-59-2	570	10	100
02898	trans-1,2-Dichloroethene	156-60-5	7.5	1.0	10
02898	1,2-Dichloropropane	78-87-5	N.D.	1.0	10
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.0	10
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.0	10
02898	1,4-Dioxane	123-91-1	N.D.	200	10
02898	Ethylbenzene	100-41-4	1.3 J	1.0	10
02898	Freon 113	76-13-1	13	2.0	10
02898	2-Hexanone	591-78-6	N.D.	10	10
02898	Isopropylbenzene	98-82-8	N.D.	1.0	10
02898	Methyl Acetate	79-20-9	N.D.	3.0	10
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1.0	10
02898	4-Methyl-2-pentanone	108-10-1	N.D.	10	10
02898	Methylcyclohexane	108-87-2	N.D.	1.0	10
02898	Methylene Chloride	75-09-2	N.D.	2.0	10
02898	Styrene	100-42-5	N.D.	1.0	10
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.0	10
02898	Tetrachloroethene	127-18-4	47	1.0	10
02898	Toluene	108-88-3	20	1.0	10
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	1.0	10
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	10
02898	1,1,1-Trichloroethane	71-55-6	270	10	100
02898	1,1,2-Trichloroethane	79-00-5	1.3 J	1.0	10
02898	Trichloroethene	79-01-6	1,500	10	100

Sample Description: **Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521218
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	
02898	Trichlorofluoromethane	75-69-4	N.D.	1.0	10
02898	Vinyl Chloride	75-01-4	13	1.0	10
02898	m+p-Xylene	179601-23-1	5.7	1.0	10
02898	o-Xylene	95-47-6	2.5 J	1.0	10
02898	Xylene (Total)	1330-20-7	8.2	1.0	10
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/l**	**ug/l**	
00527	1,4-Dioxane	123-91-1	3.3	0.2	1
GC/MS Semivolatiles	**EPA 625**		**ug/l**	**ug/l**	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Carbazole	86-74-8	N.D.	0.2	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	4-Chloroaniline	106-47-8	0.5 J	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	Dibenzofuran	132-64-9	N.D.	0.2	1
10334	1,2-Dichlorobenzene	95-50-1	5 J	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	0.3 J	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	0.8 J	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	0.9	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	9	1

Sample Description: **Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521218
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**EPA 625**		ug/l	ug/l	
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	0.9	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	2-Methylnaphthalene	91-57-6	N.D.	0.3	1
10334	2-Methylphenol	95-48-7	N.D.	0.3	1
10334	4-Methylphenol	106-44-5	N.D.	0.3	1
10334	Naphthalene	91-20-3	0.5 J	0.2	1
10334	2-Nitroaniline	88-74-4	N.D.	0.3	1
10334	3-Nitroaniline	99-09-2	0.5 J	0.4	1
10334	4-Nitroaniline	100-01-6	N.D.	0.4	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	N.D.	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	0.8 J	0.3	1
10334	2,4,5-Trichlorophenol	95-95-4	N.D.	0.4	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1
Metals	**EPA 200.7 rev 4.4**		mg/l	mg/l	
01743	Aluminum	7429-90-5	N.D. B	0.0894	1
07044	Antimony	7440-36-0	N.D.	0.0087	1
07035	Arsenic	7440-38-2	N.D.	0.0096	1
07049	Cadmium	7440-43-9	N.D.	0.0018	1
07051	Chromium	7440-47-3	0.0064 J	0.0033	1
02828	Trivalent Chromium waters[1]	16065-83-1	0.0064 J	0.0033	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.				
07052	Cobalt	7440-48-4	0.0092	0.0017	1
07053	Copper	7440-50-8	N.D.	0.0040	1
01754	Iron	7439-89-6	2.86	0.0805	1
07055	Lead	7439-92-1	N.D.	0.0060	1
07058	Manganese	7439-96-5	1.11	0.0016	1

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Analysis Report

Sample Description: **Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521218
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals		**EPA 200.7 rev 4.4**	**mg/l**	**mg/l**	
07061	Nickel	7440-02-0	0.0072 J	0.0040	1
07066	Silver	7440-22-4	N.D.	0.0024	1
07072	Zinc	7440-66-6	N.D.	0.0065	1
		EPA 245.1 rev 3	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	1
Wet Chemistry		**SM 4500-CN E-2011**	**mg/l**	**mg/l**	
00241	Cyanide (Free)[1]	n.a.	N.D.	0.0040	1
		SM 3500-Cr B-2011	**mg/l**	**mg/l**	
01446	Hexavalent Chromium	18540-29-9	N.D.	0.0010	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

This sample was field filtered for Hexavalent Chromium.

[1] = This analyte was not on the laboratory's PA DEP Scope of Accreditation at the time of analysis.

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
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/04/2018 00:16	Matthew S Krause	10
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/04/2018 00:39	Matthew S Krause	100
00527	VOCs- 5ml Water by 14-Diox SIM	SW-846 8260B SIM	1	E180851AA	03/26/2018 21:07	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E180851AA	03/26/2018 21:07	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C180931AA	04/04/2018 00:16	Matthew S Krause	10
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C180931AA	04/04/2018 00:39	Matthew S Krause	100
10334	TCL 3.2 SVOCs	EPA 625	1	18088WAI625	04/02/2018 21:29	Anthony P Bauer	1
08108	625 Water Extraction	EPA 625	1	18088WAI625	03/29/2018 21:00	Karen L Beyer	1
01743	Aluminum	EPA 200.7 rev 4.4	1	180860571601	04/02/2018 07:34	Jonathan J Allen	1
07044	Antimony	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07035	Arsenic	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07049	Cadmium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07051	Chromium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
02828	Trivalent Chromium waters	EPA 200.7 rev 4.4	1	180880282801	03/29/2018 12:27	Nina C Haller	1
07052	Cobalt	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07053	Copper	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
01754	Iron	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1

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Analysis Report

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Sample Description: **Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521218
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07058	Manganese	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07061	Nickel	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07066	Silver	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
07072	Zinc	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:40	Elaine F Stoltzfus	1
00259	Mercury	EPA 245.1 rev 3	1	180860571402	03/28/2018 07:13	Damary Valentin	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	180860571601	03/27/2018 23:05	Denise L Trimby	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	180860571402	03/28/2018 01:50	Denise L Trimby	1
00241	Cyanide (Free)	SM 4500-CN E-2011	1	18086114101A	03/27/2018 20:20	Samuel J Weaver	1
01446	Hexavalent Chromium	SM 3500-Cr B-2011	1	18082144602A	03/23/2018 23:55	Hannah M Royer	1

Sample Description: **OBEW & BREW Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521219
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:25

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	N.D.	30	10
02898	Benzene	71-43-2	N.D.	1.0	10
02898	Bromochloromethane	74-97-5	N.D.	1.0	10
02898	Bromodichloromethane	75-27-4	N.D.	1.0	10
02898	Bromoform	75-25-2	N.D.	1.0	10
02898	Bromomethane	74-83-9	N.D.	1.0	10
02898	2-Butanone	78-93-3	N.D.	10	10
02898	Carbon Disulfide	75-15-0	N.D.	4.0	10
02898	Carbon Tetrachloride	56-23-5	N.D.	1.0	10
02898	Chlorobenzene	108-90-7	N.D.	1.0	10
02898	Chloroethane	75-00-3	1.1 J	1.0	10
02898	Chloroform	67-66-3	N.D.	1.0	10
02898	Chloromethane	74-87-3	N.D.	2.0	10
02898	Cyclohexane	110-82-7	N.D.	1.0	10
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2.0	10
02898	Dibromochloromethane	124-48-1	N.D.	1.0	10
02898	1,2-Dibromoethane	106-93-4	N.D.	1.0	10
02898	1,2-Dichlorobenzene	95-50-1	N.D.	1.0	10
02898	1,3-Dichlorobenzene	541-73-1	N.D.	1.0	10
02898	1,4-Dichlorobenzene	106-46-7	N.D.	1.0	10
02898	Dichlorodifluoromethane	75-71-8	N.D.	1.0	10
02898	1,1-Dichloroethane	75-34-3	8.7	1.0	10
02898	1,2-Dichloroethane	107-06-2	N.D.	1.0	10
02898	1,1-Dichloroethene	75-35-4	7.5	1.0	10
02898	cis-1,2-Dichloroethene	156-59-2	170	1.0	10
02898	trans-1,2-Dichloroethene	156-60-5	1.7 J	1.0	10
02898	1,2-Dichloropropane	78-87-5	N.D.	1.0	10
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.0	10
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.0	10
02898	1,4-Dioxane	123-91-1	N.D.	200	10
02898	Ethylbenzene	100-41-4	N.D.	1.0	10
02898	Freon 113	76-13-1	N.D.	2.0	10
02898	2-Hexanone	591-78-6	N.D.	10	10
02898	Isopropylbenzene	98-82-8	N.D.	1.0	10
02898	Methyl Acetate	79-20-9	N.D.	3.0	10
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1.0	10
02898	4-Methyl-2-pentanone	108-10-1	N.D.	10	10
02898	Methylcyclohexane	108-87-2	N.D.	1.0	10
02898	Methylene Chloride	75-09-2	N.D.	2.0	10
02898	Styrene	100-42-5	N.D.	1.0	10
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.0	10
02898	Tetrachloroethene	127-18-4	15	1.0	10
02898	Toluene	108-88-3	N.D.	1.0	10
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	1.0	10
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	1.0	10
02898	1,1,1-Trichloroethane	71-55-6	50	1.0	10
02898	1,1,2-Trichloroethane	79-00-5	N.D.	1.0	10
02898	Trichloroethene	79-01-6	270	10	100

Sample Description: **OBEW & BREW Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521219
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:25

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	
02898	Trichlorofluoromethane	75-69-4	N.D.	1.0	10
02898	Vinyl Chloride	75-01-4	1.2 J	1.0	10
02898	m+p-Xylene	179601-23-1	N.D.	1.0	10
02898	o-Xylene	95-47-6	N.D.	1.0	10
02898	Xylene (Total)	1330-20-7	N.D.	1.0	10
GC/MS Volatiles	**SW-846 8260B SIM**		ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	8.0	1.0	5
GC/MS Semivolatiles	**EPA 625**		ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Carbazole	86-74-8	N.D.	0.2	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	4-Chloroaniline	106-47-8	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	Dibenzofuran	132-64-9	N.D.	0.2	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	0.3 J	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	0.9	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	9	1

Sample Description: **OBEW & BREW Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521219
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:25

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**EPA 625**		ug/l	ug/l	
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	0.9	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	2-Methylnaphthalene	91-57-6	N.D.	0.3	1
10334	2-Methylphenol	95-48-7	N.D.	0.3	1
10334	4-Methylphenol	106-44-5	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	2-Nitroaniline	88-74-4	N.D.	0.3	1
10334	3-Nitroaniline	99-09-2	N.D.	0.4	1
10334	4-Nitroaniline	100-01-6	N.D.	0.4	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	N.D.	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,5-Trichlorophenol	95-95-4	N.D.	0.4	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1
Metals	**EPA 200.7 rev 4.4**		mg/l	mg/l	
01743	Aluminum	7429-90-5	N.D. B	0.0894	1
07044	Antimony	7440-36-0	N.D.	0.0087	1
07035	Arsenic	7440-38-2	N.D.	0.0096	1
07049	Cadmium	7440-43-9	N.D.	0.0018	1
07051	Chromium	7440-47-3	N.D.	0.0033	1
02828	Trivalent Chromium waters[1]	16065-83-1	N.D.	0.0033	1
	The Trivalent Chromium result is calculated by subtracting Hexavalent Chromium from Total Chromium.				
07052	Cobalt	7440-48-4	0.0074	0.0017	1
07053	Copper	7440-50-8	0.0046 J	0.0040	1
01754	Iron	7439-89-6	N.D.	0.0805	1
07055	Lead	7439-92-1	N.D.	0.0060	1
07058	Manganese	7439-96-5	3.14	0.0016	1

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Analysis Report

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Sample Description: **OBEW & BREW Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521219
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:25

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals		**EPA 200.7 rev 4.4**	**mg/l**	**mg/l**	
07061	Nickel	7440-02-0	0.0372	0.0040	1
07066	Silver	7440-22-4	N.D.	0.0024	1
07072	Zinc	7440-66-6	N.D.	0.0065	1
		EPA 245.1 rev 3	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	1
Wet Chemistry		**SM 4500-CN E-2011**	**mg/l**	**mg/l**	
00241	Cyanide (Free)[1]	n.a.	N.D.	0.0040	1
		SM 3500-Cr B-2011	**mg/l**	**mg/l**	
01446	Hexavalent Chromium	18540-29-9	N.D.	0.0010	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

This sample was field filtered for Hexavalent Chromium.

[1] = This analyte was not on the laboratory's PA DEP Scope of Accreditation at the time of analysis.

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
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/04/2018 01:01	Matthew S Krause	10
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/04/2018 01:24	Matthew S Krause	100
00527	VOCs- 5ml Water by 14-Diox SIM	SW-846 8260B SIM	1	E180851AA	03/26/2018 21:27	Jason M Long	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E180851AA	03/26/2018 21:27	Jason M Long	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	C180931AA	04/04/2018 01:01	Matthew S Krause	10
01163	GC/MS VOA Water Prep	SW-846 5030B	3	C180931AA	04/04/2018 01:24	Matthew S Krause	100
10334	TCL 3.2 SVOCs	EPA 625	1	18088WAI625	04/02/2018 21:53	Anthony P Bauer	1
08108	625 Water Extraction	EPA 625	1	18088WAI625	03/29/2018 21:00	Karen L Beyer	1
01743	Aluminum	EPA 200.7 rev 4.4	1	180860571601	04/02/2018 07:37	Jonathan J Allen	1
07044	Antimony	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07035	Arsenic	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07049	Cadmium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07051	Chromium	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
02828	Trivalent Chromium waters	EPA 200.7 rev 4.4	1	180880282801	03/29/2018 12:27	Nina C Haller	1
07052	Cobalt	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07053	Copper	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
01754	Iron	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1

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Analysis Report

Sample Description: **OBEW & BREW Influent Grab Groundwater**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521219
ELLE Group #: 1923148
Matrix: Groundwater

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:25

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07058	Manganese	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07061	Nickel	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07066	Silver	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
07072	Zinc	EPA 200.7 rev 4.4	1	180860571601	03/28/2018 19:43	Elaine F Stoltzfus	1
00259	Mercury	EPA 245.1 rev 3	1	180860571402	03/28/2018 07:15	Damary Valentin	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	180860571601	03/27/2018 23:05	Denise L Trimby	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	180860571402	03/28/2018 01:50	Denise L Trimby	1
00241	Cyanide (Free)	SM 4500-CN E-2011	1	18086114101A	03/27/2018 20:21	Samuel J Weaver	1
01446	Hexavalent Chromium	SM 3500-Cr B-2011	1	18082144602A	03/23/2018 23:55	Hannah M Royer	1

Sample Description: **Trip Blank Water**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521220
ELLE Group #: 1923148
Matrix: Water

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:35

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	1
02898	Benzene	71-43-2	N.D.	0.1	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	1
02898	Bromoform	75-25-2	N.D.	0.1	1
02898	Bromomethane	74-83-9	N.D.	0.1	1
02898	2-Butanone	78-93-3	N.D.	1.0	1
02898	Carbon Disulfide	75-15-0	N.D.	0.4	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	1
02898	Chloroethane	75-00-3	N.D.	0.1	1
02898	Chloroform	67-66-3	N.D.	0.1	1
02898	Chloromethane	74-87-3	N.D.	0.2	1
02898	Cyclohexane	110-82-7	N.D.	0.1	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	1
02898	1,4-Dioxane	123-91-1	N.D.	20	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	1
02898	Freon 113	76-13-1	N.D.	0.2	1
02898	2-Hexanone	591-78-6	N.D.	1.0	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	1
02898	Methyl Acetate	79-20-9	N.D.	0.3	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	1
02898	4-Methyl-2-pentanone	108-10-1	N.D.	1.0	1
02898	Methylcyclohexane	108-87-2	N.D.	0.1	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	1
02898	Styrene	100-42-5	N.D.	0.1	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	1
02898	Toluene	108-88-3	N.D.	0.1	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	1
02898	Trichloroethene	79-01-6	N.D.	0.1	1

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Analysis Report

Sample Description: **Trip Blank Water**
Upper Black Eddy, PA
Boarhead Farms Quarterly GW Sampling

GES, Inc.-PA
ELLE Sample #: WW 9521220
ELLE Group #: 1923148
Matrix: Water

Project Name: **Boarhead Farms**

Submittal Date/Time: 03/23/2018 19:05
Collection Date/Time: 03/23/2018 11:35

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles		**SW-846 8260B 25mL purge**	**ug/l**	**ug/l**	
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	1
02898	m+p-Xylene	179601-23-1	N.D.	0.1	1
02898	o-Xylene	95-47-6	N.D.	0.1	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/19.

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
02898	TCL SOM01.2 VOCs	SW-846 8260B 25mL purge	1	C180931AA	04/03/2018 18:41	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C180931AA	04/03/2018 18:41	Matthew S Krause	1

Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

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.

Method Blank

Analysis Name	Result ug/l	MDL ug/l
Batch number: C180931AA	Sample number(s): 9521216-9521220	
Acetone	N.D.	3.0
Benzene	N.D.	0.1
Bromochloromethane	N.D.	0.1
Bromodichloromethane	N.D.	0.1
Bromoform	N.D.	0.1
Bromomethane	N.D.	0.1
2-Butanone	N.D.	1.0
Carbon Disulfide	N.D.	0.4
Carbon Tetrachloride	N.D.	0.1
Chlorobenzene	N.D.	0.1
Chloroethane	N.D.	0.1
Chloroform	N.D.	0.1
Chloromethane	N.D.	0.2
Cyclohexane	N.D.	0.1
1,2-Dibromo-3-chloropropane	N.D.	0.2
Dibromochloromethane	N.D.	0.1
1,2-Dibromoethane	N.D.	0.1
1,2-Dichlorobenzene	N.D.	0.1
1,3-Dichlorobenzene	N.D.	0.1
1,4-Dichlorobenzene	N.D.	0.1
Dichlorodifluoromethane	N.D.	0.1
1,1-Dichloroethane	N.D.	0.1
1,2-Dichloroethane	N.D.	0.1
1,1-Dichloroethene	N.D.	0.1
cis-1,2-Dichloroethene	N.D.	0.1
trans-1,2-Dichloroethene	N.D.	0.1
1,2-Dichloropropane	N.D.	0.1
cis-1,3-Dichloropropene	N.D.	0.1
trans-1,3-Dichloropropene	N.D.	0.1
1,4-Dioxane	N.D.	20
Ethylbenzene	N.D.	0.1
Freon 113	N.D.	0.2
2-Hexanone	N.D.	1.0
Isopropylbenzene	N.D.	0.1
Methyl Acetate	N.D.	0.3
Methyl Tertiary Butyl Ether	N.D.	0.1
4-Methyl-2-pentanone	N.D.	1.0
Methylcyclohexane	N.D.	0.1
Methylene Chloride	N.D.	0.2

*- Outside of specification
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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

Method Blank (continued)

Analysis Name	Result ug/l	MDL ug/l
Styrene	N.D.	0.1
1,1,2,2-Tetrachloroethane	N.D.	0.1
Tetrachloroethene	N.D.	0.1
Toluene	N.D.	0.1
1,2,3-Trichlorobenzene	N.D.	0.1
1,2,4-Trichlorobenzene	N.D.	0.1
1,1,1-Trichloroethane	N.D.	0.1
1,1,2-Trichloroethane	N.D.	0.1
Trichloroethene	N.D.	0.1
Trichlorofluoromethane	N.D.	0.1
Vinyl Chloride	N.D.	0.1
m+p-Xylene	N.D.	0.1
o-Xylene	N.D.	0.1
Xylene (Total)	N.D.	0.1
Batch number: E180851AA	Sample number(s): 9521218-9521219	
1,4-Dioxane	N.D.	0.2
Batch number: 18088WA625	Sample number(s): 9521216-9521219	
Acenaphthene	N.D.	0.3
Acenaphthylene	N.D.	0.3
Anthracene	N.D.	0.2
Benzo(a)anthracene	N.D.	0.2
Benzo(a)pyrene	N.D.	0.3
Benzo(b)fluoranthene	N.D.	0.3
Benzo(g,h,i)perylene	N.D.	0.2
Benzo(k)fluoranthene	N.D.	0.3
4-Bromophenyl-phenylether	N.D.	0.3
Butylbenzylphthalate	N.D.	0.8
Di-n-butylphthalate	N.D.	0.5
Carbazole	N.D.	0.2
4-Chloro-3-methylphenol	N.D.	0.3
4-Chloroaniline	N.D.	0.3
bis(2-Chloroethoxy)methane	N.D.	0.5
bis(2-Chloroethyl)ether	N.D.	0.4
bis(2-Chloroisopropyl)ether	N.D.	0.3
2-Chloronaphthalene	N.D.	0.2
2-Chlorophenol	N.D.	0.3
4-Chlorophenyl-phenylether	N.D.	0.3
Chrysene	N.D.	0.2
Dibenz(a,h)anthracene	N.D.	0.4
Dibenzofuran	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.3
1,3-Dichlorobenzene	N.D.	0.3
1,4-Dichlorobenzene	N.D.	0.3
3,3'-Dichlorobenzidine	N.D.	0.8

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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
2,4-Dichlorophenol	N.D.	0.3
Diethylphthalate	N.D.	0.3
2,4-Dimethylphenol	N.D.	0.3
Dimethylphthalate	N.D.	1
4,6-Dinitro-2-methylphenol	N.D.	4
2,4-Dinitrophenol	N.D.	10
2,4-Dinitrotoluene	N.D.	0.4
2,6-Dinitrotoluene	N.D.	0.3
bis(2-Ethylhexyl)phthalate	N.D.	1
Fluoranthene	N.D.	0.3
Fluorene	N.D.	0.3
Hexachlorobenzene	N.D.	1
Hexachlorobutadiene	N.D.	0.8
Hexachlorocyclopentadiene	N.D.	2
Hexachloroethane	N.D.	0.4
Indeno(1,2,3-cd)pyrene	N.D.	0.3
Isophorone	N.D.	0.3
2-Methylnaphthalene	N.D.	0.3
2-Methylphenol	N.D.	0.3
4-Methylphenol	N.D.	0.3
Naphthalene	N.D.	0.2
2-Nitroaniline	N.D.	0.3
3-Nitroaniline	N.D.	0.4
4-Nitroaniline	N.D.	0.4
Nitrobenzene	N.D.	0.5
2-Nitrophenol	N.D.	0.4
4-Nitrophenol	N.D.	5
N-Nitroso-di-n-propylamine	N.D.	0.4
N-Nitrosodiphenylamine	N.D.	0.3
Di-n-octylphthalate	N.D.	0.5
Pentachlorophenol	N.D.	3
Phenanthrene	N.D.	0.2
Phenol	N.D.	0.4
Pyrene	N.D.	0.2
1,2,4-Trichlorobenzene	N.D.	0.3
2,4,5-Trichlorophenol	N.D.	0.4
2,4,6-Trichlorophenol	N.D.	0.7
	mg/l	mg/l
Batch number: 180860571402	Sample number(s): 9521215,9521218-9521219	
Mercury	N.D.	0.000050
Batch number: 180860571601	Sample number(s): 9521215-9521216,9521218-9521219	
Aluminum	0.0941 J	0.0894
Antimony	N.D.	0.0087
Arsenic	N.D.	0.0096

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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

Method Blank (continued)

Analysis Name	Result mg/l	MDL mg/l
Cadmium	N.D.	0.0018
Chromium	N.D.	0.0033
Cobalt	N.D.	0.0017
Copper	N.D.	0.0040
Iron	N.D.	0.0805
Lead	N.D.	0.0060
Manganese	N.D.	0.0016
Nickel	N.D.	0.0040
Silver	N.D.	0.0024
Zinc	N.D.	0.0065
Batch number: 18086114101A	Sample number(s): 9521215,9521218-9521219	
Cyanide (Free)	N.D.	0.0040
Batch number: 18082144602A	Sample number(s): 9521215-9521216,9521218-9521219	
Hexavalent Chromium	N.D.	0.0010

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: C180931AA	Sample number(s): 9521216-9521220								
Acetone	37.5	36.5	37.5	42.19	97	113	68-141	14	30
Benzene	5.00	4.70	5.00	4.77	94	95	80-120	1	30
Bromochloromethane	5.00	4.64	5.00	4.77	93	95	80-120	3	30
Bromodichloromethane	5.00	4.80	5.00	4.85	96	97	80-125	1	30
Bromoform	5.00	5.27	5.00	5.17	105	103	57-141	2	30
Bromomethane	5.00	4.75	5.00	4.85	95	97	62-125	2	30
2-Butanone	37.5	38.63	37.5	42.01	103	112	59-141	8	30
Carbon Disulfide	5.00	4.64	5.00	4.69	93	94	72-129	1	30
Carbon Tetrachloride	5.00	4.62	5.00	4.72	92	94	71-139	2	30
Chlorobenzene	5.00	4.73	5.00	4.83	95	97	80-120	2	30
Chloroethane	5.00	4.47	5.00	4.66	89	93	63-120	4	30
Chloroform	5.00	4.72	5.00	4.77	94	95	80-120	1	30
Chloromethane	5.00	4.52	5.00	4.59	90	92	47-120	1	30
Cyclohexane	5.00	4.48	5.00	4.56	90	91	69-120	2	30
1,2-Dibromo-3-chloropropane	5.00	5.67	5.00	5.88	113	118	48-149	4	30
Dibromochloromethane	5.00	5.11	5.00	5.12	102	102	73-135	0	30
1,2-Dibromoethane	5.00	5.00	5.00	5.10	100	102	80-120	2	30
1,2-Dichlorobenzene	5.00	5.02	5.00	4.97	100	99	80-120	1	30
1,3-Dichlorobenzene	5.00	4.90	5.00	4.97	98	99	80-120	1	30
1,4-Dichlorobenzene	5.00	4.80	5.00	4.88	96	98	80-120	2	30

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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dichlorodifluoromethane	5.00	4.26	5.00	4.34	85	87	23-128	2	30
1,1-Dichloroethane	5.00	4.67	5.00	4.77	93	95	80-120	2	30
1,2-Dichloroethane	5.00	4.54	5.00	4.77	91	95	68-137	5	30
1,1-Dichloroethene	5.00	4.25	5.00	4.98	85	100	80-124	16	30
cis-1,2-Dichloroethene	5.00	4.84	5.00	4.94	97	99	80-120	2	30
trans-1,2-Dichloroethene	5.00	4.77	5.00	4.82	95	96	80-120	1	30
1,2-Dichloropropane	5.00	4.77	5.00	4.88	95	98	80-120	2	30
cis-1,3-Dichloropropene	5.00	4.94	5.00	4.94	99	99	74-122	0	30
trans-1,3-Dichloropropene	5.00	5.16	5.00	5.18	103	104	71-131	0	30
1,4-Dioxane	125	136.73	125	154.73	109	124	59-162	12	30
Ethylbenzene	5.00	4.77	5.00	4.84	95	97	80-120	1	30
Freon 113	5.00	4.53	5.00	5.14	91	103	80-128	12	30
2-Hexanone	25	25.59	25	25.62	102	102	61-143	0	30
Isopropylbenzene	5.00	4.85	5.00	4.90	97	98	80-120	1	30
Methyl Acetate	5.00	5.00	5.00	4.89	100	98	59-143	2	30
Methyl Tertiary Butyl Ether	5.00	4.78	5.00	4.82	96	96	75-122	1	30
4-Methyl-2-pentanone	25	24.91	25	25.78	100	103	67-140	3	30
Methylcyclohexane	5.00	4.44	5.00	4.53	89	91	80-120	2	30
Methylene Chloride	5.00	4.83	5.00	4.91	97	98	80-120	2	30
Styrene	5.00	4.89	5.00	4.92	98	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5.00	4.96	5.00	4.99	99	100	75-123	1	30
Tetrachloroethene	5.00	4.77	5.00	4.90	95	98	80-120	3	30
Toluene	5.00	4.75	5.00	4.85	95	97	80-120	2	30
1,2,3-Trichlorobenzene	5.00	5.07	5.00	5.18	101	104	66-120	2	30
1,2,4-Trichlorobenzene	5.00	5.08	5.00	5.06	102	101	74-120	0	30
1,1,1-Trichloroethane	5.00	4.53	5.00	4.65	91	93	78-126	3	30
1,1,2-Trichloroethane	5.00	5.13	5.00	5.04	103	101	80-120	2	30
Trichloroethene	5.00	4.65	5.00	4.78	93	96	80-120	3	30
Trichlorofluoromethane	5.00	4.61	5.00	4.65	92	93	52-143	1	30
Vinyl Chloride	5.00	4.64	5.00	4.74	93	95	56-120	2	30
m+p-Xylene	10	9.47	10	9.60	95	96	80-120	1	30
o-Xylene	5.00	4.74	5.00	4.81	95	96	80-120	2	30
Xylene (Total)	15	14.21	15	14.41	95	96	80-120	1	30
Batch number: E180851AA	Sample number(s): 9521218-9521219								
1,4-Dioxane	5.00	4.75			95		80-130		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 18088WAI625	Sample number(s): 9521216-9521219								
Acenaphthene	50	42.43	50	44.03	85	88	47-145	4	30
Acenaphthylene	50	43.79	50	45.31	88	91	33-145	3	30
Anthracene	50	41.75	50	43.3	83	87	27-133	4	30
Benzo(a)anthracene	50	42.66	50	45.09	85	90	33-143	6	30
Benzo(a)pyrene	50	43.65	50	45.68	87	91	17-163	5	30

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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(b)fluoranthene	50	44.27	50	46.48	89	93	24-159	5	30
Benzo(g,h,i)perylene	50	40.99	50	45.46	82	91	10-200	10	30
Benzo(k)fluoranthene	50	42.71	50	43.81	85	88	11-162	3	30
4-Bromophenyl-phenylether	50	38.96	50	41.94	78	84	53-127	7	30
Butylbenzylphthalate	50	45.4	50	46.87	91	94	10-152	3	30
Di-n-butylphthalate	50	44.21	50	45.67	88	91	10-118	3	30
Carbazole	50	45.27	50	46.22	91	92	69-121	2	30
4-Chloro-3-methylphenol	50	41.82	50	43.71	84	87	22-147	4	30
4-Chloroaniline	50	39.05	50	35.63	78	71	24-99	9	30
bis(2-Chloroethoxy)methane	50	41.3	50	43.13	83	86	33-184	4	30
bis(2-Chloroethyl)ether	50	41.31	50	42.91	83	86	12-158	4	30
bis(2-Chloroisopropyl)ether	50	39.45	50	40.99	79	82	36-166	4	30
2-Chloronaphthalene	50	35	50	37.29	70	75	60-118	6	30
2-Chlorophenol	50	39.71	50	41.32	79	83	23-134	4	30
4-Chlorophenyl-phenylether	50	41.75	50	42.62	84	85	25-158	2	30
Chrysene	50	43.28	50	45.36	87	91	17-168	5	30
Dibenz(a,h)anthracene	50	42.68	50	47.4	85	95	10-200	10	30
Dibenzofuran	50	42.76	50	43.85	86	88	62-123	3	30
1,2-Dichlorobenzene	50	33.58	50	35.67	67	71	32-129	6	30
1,3-Dichlorobenzene	50	31.76	50	32.97	64	66	10-172	4	30
1,4-Dichlorobenzene	50	32.89	50	34.13	66	68	20-124	4	30
3,3'-Dichlorobenzidine	50	36.31	50	33.12	73	66	10-200	9	30
2,4-Dichlorophenol	50	42.61	50	44.19	85	88	39-135	4	30
Diethylphthalate	50	35.35	50	38.19	71	76	10-114	8	30
2,4-Dimethylphenol	50	37.19	50	39.39	74	79	32-119	6	30
Dimethylphthalate	50	16.45	50	19.4	33	39	10-112	16	30
4,6-Dinitro-2-methylphenol	50	42.45	50	43.48	85	87	10-181	2	30
2,4-Dinitrophenol	100	73.27	100	81.09	73	81	10-191	10	30
2,4-Dinitrotoluene	50	43.79	50	45.12	88	90	39-139	3	30
2,6-Dinitrotoluene	50	43.17	50	44.73	86	89	50-158	4	30
bis(2-Ethylhexyl)phthalate	50	46.24	50	48.21	92	96	10-158	4	30
Fluoranthene	50	43.23	50	44.31	86	89	26-137	2	30
Fluorene	50	43.75	50	45.39	87	91	59-121	4	30
Hexachlorobenzene	50	40.21	50	42.27	80	85	10-152	5	30
Hexachlorobutadiene	50	32.25	50	34.87	64	70	24-116	8	30
Hexachlorocyclopentadiene	100	60.03	100	67.16	60	67	10-88	11	30
Hexachloroethane	50	29.11	50	30.48	58	61	40-113	5	30
Indeno(1,2,3-cd)pyrene	50	41.09	50	45.07	82	90	10-171	9	30
Isophorone	50	41.42	50	42.91	83	86	21-196	4	30
2-Methylnaphthalene	50	39.7	50	41.32	79	83	38-125	4	30
2-Methylphenol	50	33.29	50	34.68	67	69	52-119	4	30
4-Methylphenol	50	30.57	50	31.6	61	63	42-112	3	30
Naphthalene	50	36.85	50	38.37	74	77	21-133	4	30
2-Nitroaniline	50	43.98	50	46.7	88	93	78-115	6	30

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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
3-Nitroaniline	50	43.66	50	45.05	87	90	72-108	3	30
4-Nitroaniline	50	37.88	50	37.08	76	74	52-105	2	30
Nitrobenzene	50	41.09	50	42.64	82	85	35-180	4	30
2-Nitrophenol	50	42.25	50	44.37	85	89	29-182	5	30
4-Nitrophenol	50	17.15	50	16.7	34	33	10-132	3	30
N-Nitroso-di-n-propylamine	50	42.07	50	43.39	84	87	10-200	3	30
N-Nitrosodiphenylamine	50	41.04	50	44.1	82	88	69-120	7	30
Di-n-octylphthalate	50	46.77	50	47.69	94	95	10-146	2	30
Pentachlorophenol	50	41.01	50	42.23	82	84	14-176	3	30
Phenanthrene	50	41.6	50	42.92	83	86	54-120	3	30
Phenol	50	15.96	50	16.43	32	33	10-112	3	30
Pyrene	50	43.54	50	45.09	87	90	52-115	4	30
1,2,4-Trichlorobenzene	50	35.6	50	37.46	71	75	44-142	5	30
2,4,5-Trichlorophenol	50	44.38	50	46.67	89	93	76-118	5	30
2,4,6-Trichlorophenol	50	43.48	50	45.74	87	91	37-144	5	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: 180860571402	Sample number(s): 9521215,9521218-9521219								
Mercury	0.00100	0.000906			91		85-115		
Batch number: 180860571601	Sample number(s): 9521215-9521216,9521218-9521219								
Aluminum	2.00	2.15			107		85-115		
Antimony	0.500	0.491			98		85-115		
Arsenic	0.150	0.140			93		85-115		
Cadmium	0.0500	0.0506			101		85-115		
Chromium	0.200	0.199			99		85-115		
Cobalt	0.500	0.498			100		85-115		
Copper	0.250	0.249			100		85-115		
Iron	1.00	0.996			100		85-115		
Lead	0.150	0.148			99		85-115		
Manganese	0.500	0.509			102		85-115		
Nickel	0.500	0.513			103		85-115		
Silver	0.0500	0.0440			88		85-115		
Zinc	0.500	0.501			100		85-115		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 18086114101A	Sample number(s): 9521215,9521218-9521219								
Cyanide (Free)	0.150	0.157			105		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 18082144602A	Sample number(s): 9521215-9521216,9521218-9521219								
Hexavalent Chromium	0.0200	0.0199	0.0200	0.0201	99	101	95-105	1	20

*- 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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

MS/MSD

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: E180851AA	Sample number(s): 9521218-9521219 UNSPK: P506188									
1,4-Dioxane	N.D.	5.00	3.95	5.00	4.40	79*	88	80-130	11	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 180860571402	Sample number(s): 9521215,9521218-9521219 UNSPK: P521480									
Mercury	0.000138	0.00100	0.00112			98		80-120		
Batch number: 180860571601	Sample number(s): 9521215-9521216,9521218-9521219 UNSPK: 9521215, P521215									
Aluminum	N.D.	2.00	2.13			107		70-130		
Antimony	N.D.	0.500	0.490			98		70-130		
Arsenic	N.D.	0.150	0.141			94		70-130		
Cadmium	N.D.	0.0500	0.0504			101		70-130		
Chromium	N.D.	0.200	0.196			98		70-130		
Cobalt	N.D.	0.500	0.488			98		70-130		
Copper	N.D.	0.250	0.250			100		70-130		
Iron	N.D.	1.00	0.997			100		70-130		
Lead	N.D.	0.150	0.147			98		70-130		
Manganese	0.0433	0.500	0.541			100		70-130		
Nickel	0.0181	0.500	0.517			100		70-130		
Silver	N.D.	0.0500	0.0447			89		70-130		
Zinc	N.D.	0.500	0.495			99		70-130		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 18086114101A	Sample number(s): 9521215,9521218-9521219 UNSPK: 9521215									
Cyanide (Free)	N.D.	0.200	0.219			110		90-110		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 180860571402	Sample number(s): 9521215,9521218-9521219 BKG: P521480			
Mercury	0.000138	0.000132	4 (1)	20
Batch number: 180860571601	Sample number(s): 9521215-9521216,9521218-9521219 BKG: 9521215, P521215			
Aluminum	N.D.	N.D.	0 (1)	20
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	N.D.	N.D.	0 (1)	20

*- 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.
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Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	N.D.	N.D.	0 (1)	20
Cobalt	N.D.	N.D.	0 (1)	20
Copper	N.D.	N.D.	0 (1)	20
Iron	N.D.	N.D.	0 (1)	20
Lead	N.D.	N.D.	0 (1)	20
Manganese	0.0433	0.0430	1	20
Nickel	0.0181	0.0179	1 (1)	20
Silver	N.D.	N.D.	0 (1)	20
Zinc	N.D.	N.D.	0 (1)	20
	mg/l	mg/l		
Batch number: 18086114101A	Sample number(s): 9521215,9521218-9521219 BKG: 9521215			
Cyanide (Free)	N.D.	N.D.	0 (1)	20
	mg/l	mg/l		
Batch number: 18082144602A	Sample number(s): 9521215-9521216,9521218-9521219 BKG: 9521219			
Hexavalent Chromium	N.D.	N.D.	0 (1)	20

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: TCL SOM01.2 VOCs
Batch number: C180931AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9521216	100	99	99	100
9521217	99	100	100	100
9521218	103	100	100	100
9521219	102	101	100	99
9521220	100	98	100	101
Blank	99	100	100	101
LCS	98	104	101	100
LCSD	99	98	101	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 14-Diox SIM
Batch number: E180851AA

*- 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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.-PA
Reported: 04/05/2018 17:49

Group Number: 1923148

Surrogate Quality Control (continued)

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

Analysis Name: VOCs- 5ml Water by 14-Diox SIM
Batch number: E180851AA

	Toluene-d8
9521218	92
9521219	91
Blank	91
LCS	91
MS	90
MSD	90
Limits:	80-120

Analysis Name: TCL 3.2 SVOCs
Batch number: 18088WAI625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
9521216	87	84	89	25	42	77
9521217	85	85	91	24	40	83
9521218	85	83	88	1*	2*	15*
9521219	84	81	87	1*	2*	7*
Blank	87	84	91	28	47	84
LCS	81	80	86	27	44	84
LCSD	83	82	88	27	44	84
Limits:	60-119	55-117	56-118	10-75	10-99	27-142

*- 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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

2575 1923148 952121 5-20

Serial Number

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17605

Lynn Frederickson
Principal Project Manager - Client Services
Phone: (717) 656-2300

Project Name:	GES Project Number:
Boarhead Farms (02575)	0204215-40-001
1310 Lonely Cottage Rd. Upper Black Eddy, PA 18972	Quote No.:
GES Project Manager: Derek Jelinek	Client Phone: 610-458-1077 x3065 / Client Fax: 610-458-2300
Client Name: Groundwater & Environmental Services, Inc.	Client E-mail: labreportspae@gesonline.com and DJelinek@gesonline.com
Client Address: 440 Creamery Way, Suite 500, Exton PA 19341	

Page 1 of 1

STANDARD REPORT DELIVERY ⊗

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) DATE DUE ○

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	Chromium (200.7), Trivalent Chromium	Chromium, Hexavalent (SM20 3500 Cr B) All Filtered in Field	Cyanide, Free (SM20 4500 CN E)	Metals (200.7) - See Site Specific List	SVOCs (625) - See Site Specific List	VOCs (SW846-8260B 25mL purge) - See Site Specific List	1,4-Dioxane (SW846-8260B SIM)			
		PRESERVATIVE (Bottle Size)						HNO_3 (250 mL)	None (250 mL)	NaOH/asc (250 mL)	HNO_3 (250 mL)	None (1000 mL)	HCl (40 mL)	HCl (40 mL)			
								NUMBER OF CONTAINERS SUBMITTED									
3-23-18	10:45	Effluent Composite	C	X					1	1	1						
3-23-18	10:55	Effluent Grab	G	X				1	1			2	3				
3-23-18	11:05	Midfluent Grab	G	X								2	3				
3-23-18	11:15	Influent Grab	G	X				X	1	1	1	2	3	3 2			
3-23-18	11:25	OBEW & BREW Influent	G	X				X	1	1	1	2	3	3 2			
3-23-18	11:35	Trip Blank	G	X									2				

REMARKS

"X" - Indicates analysis required but will be analyzed from the respective bottleware for the Metals analysis.

Chromium Hexavalent (SM20 3500 Cr B) samples are Field Filtered.

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	3-23-18	12:30	[signature]	3/23/18	19:05			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	3/23/18	12:30						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL LOG NO.	LABORATORY REMARKS:
[signature]	3-23-18	1905	YES ○ NO ○			

FCU036:12.20.00:2

Original - Return to Laboratory with Sample(s)

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Sample Administration Receipt Documentation Log

Doc Log ID: 211789

Group Number(s): 1923148

Client: GES

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	03/23/2018 19:05
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	2
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Melvin Sanchez (8943) at 19:57 on 03/23/2018

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	Elevated Temp?
1	DT131	1.4	DT	Wet	Y	Bagged	N
2	DT131	1.0	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

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www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

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

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< less than

> 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.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) 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.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q2	MS/MSD Low
Q3	MS/MSD High
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.