

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: LAMBDA ENERGY RESOURCES, LLC

Name:

ClientProj: 2018100158.03

GTA ProjNo: 060519-6

Site Addr: NMLO 3-21 WELL SITE (FLOWLINE RELEASE)

Sampled By: MIKE RANKENS/GCES

Date Rec: 6/5/2019

Time Rec: 1:55 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	SB-2 (10') R	6/5/2019	9:45 AM	SOIL
2	SB-2 (12') R	6/5/2019	9:55 AM	SOIL
3	SB-2 (15') R	6/5/2019	10:00 AM	SOIL
4	FL-FL-1 (9') RR	6/5/2019	10:45 AM	SOIL
5	FL-FL-1 (15') R	6/5/2019	10:55 AM	SOIL

ELECTRONIC SIGNATURE REPORT. This is a final report for the following pages of data for the samples specified above. All analysis was performed by the methods stated and all quality control measures required were completed. All quality control information is available upon request.

Kirk L Chase

Kirk L. Chase/Chemist
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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 1
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 9:45 AM
MI DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
SAMPLE MATRIX: SOIL
SAMPLE ID: SB-2 (10') R SAMPLED BY: MIKE RANKENS/GCES
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	6/5/2019	6/5/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 2
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 9:55 AM
MI DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
SAMPLE MATRIX: SOIL
SAMPLE ID: SB-2 (12') R SAMPLED BY: MIKE RANKENS/GCES
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB) MR		6/5/2019	6/5/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 3
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 10:00 AM
MI DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
SAMPLE MATRIX: SOIL
SAMPLE ID: SB-2 (15') R SAMPLED BY: MIKE RANKENS/GCES
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	6/5/2019	6/5/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 4
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 10:45 AM
MI DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
SAMPLE MATRIX: SOIL
SAMPLE ID: FL-FL-1 (9") RR SAMPLED BY: MIKE RANKENS/GCES
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	6/5/2019	6/5/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 5
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 10:55 AM
MI DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
SAMPLE MATRIX: SOIL
SAMPLE ID: FL-FL-1 (15') R SAMPLED BY: MIKE RANKENS/GCES
**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB) MR		6/5/2019	6/5/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED, RESULT < LOD

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COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 1
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 9:45 AM
DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
MI
SAMPLED BY: MIKE RANKENS/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: SB-2 (10') R						
	CHLORIDE EPA 300.0	ND	54	mg/Kg (PPM)	LV	6/11/2019	SOIL

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 2
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 9:55 AM
DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
MI
SAMPLED BY: MIKE RANKENS/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: SB-2 (12') R						
	CHLORIDE EPA 300.0	ND	55	mg/Kg (PPM)	LV	6/11/2019	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 3
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 10:00 AM
DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
MI
SAMPLED BY: MIKE RANKENS/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: SB-2 (15') R						
	CHLORIDE EPA 300.0	ND	51	mg/Kg (PPM)	LV	6/11/2019	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
 PROJECT NO: 2018100158.03 GTA SAMPLE NO: 4
 LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
 TIME SAMPLED: 10:45 AM
 DATE RECEIVED: 6/5/2019
 TIME RECEIVED: 1:55 PM
 MI
 SAMPLED BY: MIKE RANKENS/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: FL-FL-1 (9') RR CHLORIDE EPA 300.0	ND	51	mg/Kg (PPM)	LV	6/11/2019	SOIL

ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION
 s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC GTA PROJECT NO: 060519-6
PROJECT NO: 2018100158.03 GTA SAMPLE NO: 5
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE) DATE SAMPLED: 6/5/2019
TIME SAMPLED: 10:55 AM
DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM
MI
SAMPLED BY: MIKE RANKENS/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u>	<u>Sample</u>
	SAMPLE ID: FL-FL-1 (15') R						
	CHLORIDE EPA 300.0	180	53	mg/Kg (PPM)	LV	6/11/2019	SOIL

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
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COMPANY: LAMBDA ENERGY RESOURCES, LLC
NAME:
PROJECT NO: 2018100158.03
LOCATION: NMLO 3-21 WELL SITE (FLOWLINE RELEASE)
MI

GTA PROJECT NO: 060519-6
SAMPLED BY: MIKE RANKENS/GCES
DATE SAMPLED: 6/5/2019
TIME SAMPLED: 9:45 AM
SAMPLE MATRIX: SOIL
DATE RECEIVED: 6/5/2019
TIME RECEIVED: 1:55 PM

MOISTURE

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Complete</u>
SAMPLE ID: SB-2 (10') R	% MOISTURE EPA 3550C	11	0.050	% OF SAMPLE	AS	6/5/2019
SAMPLE ID: SB-2 (12') R	% MOISTURE EPA 3550C	8.7	0.050	% OF SAMPLE	AS	6/5/2019
SAMPLE ID: SB-2 (15') R	% MOISTURE EPA 3550C	6.4	0.050	% OF SAMPLE	AS	6/5/2019
SAMPLE ID: FL-FL-1 (9') RR	% MOISTURE EPA 3550C	5.5	0.050	% OF SAMPLE	AS	6/5/2019
SAMPLE ID: FL-FL-1 (15') R	% MOISTURE EPA 3550C	5.8	0.050	% OF SAMPLE	AS	6/5/2019

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CHAIN OF CUSTODY

PROJECT NUMBER 2018100158.03	SITE NAME/ADDRESS NMLU 3-21 Well Site (Flowline Release)	COMPANY/NAME Lambda Energy Resources, LLC
SAMPLED BY Mike Rankens	COMPANY GCEs	GTA PROJECT # 60519-6

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
	SB-2 (10') R	6/5/19	0945	Soil	BTEX+4 AND Chloride AND BTEX+4 SPLP
	SB-2 (12') R	6/5/19	0955	Soil	BTEX+4 AND Chloride AND BTEX+4 SPLP
	SB-2 (15') R	6/5/19	1000	Soil	BTEX+4 AND Chloride AND BTEX+4 SPLP
	FL-FL-1 (9') RR	6/5/19	1045	Soil	BTEX+4 AND Chloride AND BTEX+4 SPLP
	FL-FL-1 (15') R	6/5/19	1055	Soil	BTEX+4 AND Chloride AND BTEX+4 SPLP

BILL TO:

Lambda Energy Resources, LLC

REPORT TO:

ADAM BITEMAN
- GCEs

RELEASED BY

DATE/TIME

Mike Rankens 6/5/19 @ 1:55

RECEIVED BY

DATE/TIME

Adam Biteman 6/5/19 1:55p

REQUESTED TAT

☒ STANDARD

☐ 1 BUSINESS DAY

☐ 2 BUSINESS DAYS

☐ 3 BUSINESS DAYS