

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Approach Environmental, LLC

Comstock (Mason Rig Supply)

SGS Job Number: LA46413

Sampling Date: 08/02/18

Report to:

Approach Environmental, LLC
151 Freestate Blvd., Suite B
Shreveport, LA 71107
marksm@approachenv.com

ATTN: Mark S. Moore

Total number of pages in report: 68



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Ron Benjamin
Ron Benjamin
Lab Director

Client Service contact: Amy Jackson 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), AZ(AZ0805), FL(E87657), IL(200082), KY(#31), NC(487), SC(73004001), NJ(LA007), TX(T104704186-15-7), WV(257)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	4
Section 3: Sample Results	5
3.1: LA46413-1: MASON 21-1 RIG SUPPLY	6
3.2: LA46413-2: MASON 21-1 RIG SUPPLY B	12
Section 4: Misc. Forms	17
4.1: Chain of Custody	18
Section 5: GC Volatiles - QC Data Summaries	20
5.1: Method Blank Summary	21
5.2: Blank Spike/Blank Spike Duplicate Summary	23
5.3: Matrix Spike/Matrix Spike Duplicate Summary	25
Section 6: GC/LC Semi-volatiles - QC Data Summaries	27
6.1: Method Blank Summary	28
6.2: Blank Spike/Blank Spike Duplicate Summary	29
Section 7: Metals Analysis - QC Data Summaries	31
7.1: Prep QC MP12318: As,Ba,Cd,Cr,Pb,Se,Ag,Na	32
7.2: Prep QC MP12333: Hg	37
Section 8: Misc. Forms (SGS Dayton, NJ)	42
8.1: Chain of Custody	43
Section 9: GC Volatiles - QC Data (SGS Dayton, NJ)	45
9.1: Method Blank Summary	46
9.2: Laboratory Control Sample Summary	47
9.3: Duplicate Summary	48
Section 10: Metals Analysis - QC Data (SGS Dayton, NJ)	49
10.1: Prep QC MP8480: S	50
Section 11: Misc. Forms (SGS Houston, TX)	60
11.1: Chain of Custody	61
Section 12: General Chemistry - QC Data (SGS Houston, TX)	65
12.1: Method Blank and Spike Results Summary	66
12.2: Duplicate Results Summary	67
12.3: Matrix Spike Results Summary	68



Sample Summary

Approach Environmental, LLC
Comstock (Mason Rig Supply)

Job No: LA46413

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
LA46413-1	08/02/18	12:00 DD	08/03/18	AQ	Water	MASON 21-1 RIG SUPPLY
LA46413-2	08/02/18	14:30 DD	08/03/18	AQ	Water	MASON 21-1 RIG SUPPLY B

Summary of Hits

Job Number: LA46413
Account: Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)
Collected: 08/02/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
LA46413-1	MASON 21-1 RIG SUPPLY					
Methane ^a		0.0171	0.00011		mg/l	RSK-175
Barium		0.0464	0.010		mg/l	SW846 6010C
Sodium		221	0.50		mg/l	SW846 6010C
Sulfur ^a		10.9	0.050		mg/l	SW846 6010D
Chloride ^b		65.7	5.0		mg/l	SW846 9056A
Solids, Total Dissolved ^b		570	10		mg/l	SM 2540C-2011
LA46413-2	MASON 21-1 RIG SUPPLY B					
Methane ^a		0.00015	0.00011		mg/l	RSK-175
Sulfur ^a		13.3	0.050		mg/l	SW846 6010D

(a) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Houston, TX.

Sample Results

Report of Analysis

Report of Analysis

3.1
3

Client Sample ID: MASON 21-1 RIG SUPPLY	Date Sampled: 08/02/18
Lab Sample ID: LA46413-1	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8015C	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LA307380.D	1	08/06/18 21:50	MB	n/a	n/a	GLA1973
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	4-Bromofluorobenzene	102%		89-126%	
540-36-3	1,4-Difluorobenzene	102%		70-135%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: MASON 21-1 RIG SUPPLY	Date Sampled: 08/02/18
Lab Sample ID: LA46413-1	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8021B	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LO026535.D	1	08/06/18 18:34	SV	n/a	n/a	GLO617
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	mg/l	
1330-20-7	Xylenes (total)	ND	0.0030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
540-36-3	1,4-Difluorobenzene	103%		51-157%
460-00-4	4-Bromofluorobenzene	97%		63-153%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MASON 21-1 RIG SUPPLY	
Lab Sample ID: LA46413-1	Date Sampled: 08/02/18
Matrix: AQ - Water	Date Received: 08/03/18
Method: RSK-175	Percent Solids: n/a
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA67083.D	1	08/10/18 15:59	ANJ	n/a	n/a	N:GAA1497
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-82-8	Methane	0.0171	0.00011	mg/l	

(a) Analysis performed at SGS Dayton, NJ.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: MASON 21-1 RIG SUPPLY	Date Sampled: 08/02/18
Lab Sample ID: LA46413-1	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8015C SW846 3511	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GLH019628.D	1	08/09/18 06:46	JT	08/07/18 13:00	OP11932	GLH425
Run #2							

Run #	Initial Volume	Final Volume
Run #1	52.6 ml	1.5 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	0.14	mg/l	
	TPH-ORO (C28-C35)	ND	0.14	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	101%		41-148%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: MASON 21-1 RIG SUPPLY Lab Sample ID: LA46413-1 Matrix: AQ - Water Project: Comstock (Mason Rig Supply)	Date Sampled: 08/02/18 Date Received: 08/03/18 Percent Solids: n/a
---	---

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.010	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Barium	0.0464	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Cadmium	< 0.0050	0.0050	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Chromium	< 0.010	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Lead	< 0.010	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Mercury	< 0.00020	0.00020	mg/l	1	08/07/18	08/08/18 SA	SW846 7470A ²	SW846 7470A ⁵
Selenium	< 0.010	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Silver	< 0.010	0.010	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Sodium	221	0.50	mg/l	1	08/06/18	08/06/18 BB	SW846 6010C ¹	SW846 3010A ⁴
Sulfur ^a	10.9	0.050	mg/l	1	08/07/18	08/09/18 ANJ	SW846 6010D ³	SW846 3010A ⁶

- (1) Instrument QC Batch: MA12916
- (2) Instrument QC Batch: MA12948
- (3) Instrument QC Batch: N:MA45041
- (4) Prep QC Batch: MP12318
- (5) Prep QC Batch: MP12333
- (6) Prep QC Batch: N:MP8480

(a) Analysis performed at SGS Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MASON 21-1 RIG SUPPLY	Date Sampled: 08/02/18
Lab Sample ID: LA46413-1	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Project: Comstock (Mason Rig Supply)	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	65.7	5.0	mg/l	10	08/06/18 11:03	ATX	SW846 9056A
Solids, Total Dissolved ^a	570	10	mg/l	1	08/06/18	ATX	SM 2540C-2011

(a) Analysis performed at SGS Houston, TX.

RL = Reporting Limit

Report of Analysis

32
3

Client Sample ID: MASON 21-1 RIG SUPPLY B	Date Sampled: 08/02/18
Lab Sample ID: LA46413-2	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8015C	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LA307382.D	1	08/06/18 22:13	MB	n/a	n/a	GLA1973
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
460-00-4	4-Bromofluorobenzene	102%		89-126%	
540-36-3	1,4-Difluorobenzene	102%		70-135%	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MASON 21-1 RIG SUPPLY B	Date Sampled: 08/02/18
Lab Sample ID: LA46413-2	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8021B	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LO026536.D	1	08/06/18 19:04	SV	n/a	n/a	GLO617
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.0010	mg/l	
108-88-3	Toluene	ND	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	mg/l	
1330-20-7	Xylenes (total)	ND	0.0030	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
540-36-3	1,4-Difluorobenzene	106%		51-157%
460-00-4	4-Bromofluorobenzene	110%		63-153%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MASON 21-1 RIG SUPPLY B	
Lab Sample ID: LA46413-2	Date Sampled: 08/02/18
Matrix: AQ - Water	Date Received: 08/03/18
Method: RSK-175	Percent Solids: n/a
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA67085.D	1	08/10/18 16:25	ANJ	n/a	n/a	N:GAA1497
Run #2							

CAS No.	Compound	Result	RL	Units	Q
74-82-8	Methane	0.00015	0.00011	mg/l	

(a) Analysis performed at SGS Dayton, NJ.

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MASON 21-1 RIG SUPPLY B	Date Sampled: 08/02/18
Lab Sample ID: LA46413-2	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8015C SW846 3511	
Project: Comstock (Mason Rig Supply)	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GLH019629.D	1	08/09/18 07:10	JT	08/07/18 13:00	OP11932	GLH425
Run #2							

Run #	Initial Volume	Final Volume
Run #1	54.8 ml	1.5 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	0.14	mg/l	
	TPH-ORO (C28-C35)	ND	0.14	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	100%		41-148%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MASON 21-1 RIG SUPPLY B	Date Sampled: 08/02/18
Lab Sample ID: LA46413-2	Date Received: 08/03/18
Matrix: AQ - Water	Percent Solids: n/a
Project: Comstock (Mason Rig Supply)	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sulfur ^a	13.3	0.050	mg/l	1	08/07/18	08/09/18 ANJ	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: N:MA45041

(2) Prep QC Batch: N:MP8480

(a) Analysis performed at SGS Dayton, NJ.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS Accutest - Scott
 500 Ambassador Caffery Parkway, Scott, LA 70583
 TEL: 337.237.4775 FAX: 337.237.7838
 www.accutest.com

FED-EX Tracking #
 Bottle Order Control #
 SGS Accutest Quote #
 SGS Accutest Job # **LA 46413**

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes							
Company Name Approach Environmental		Project Name COMSTOCK (Mason Rig Supply)				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> BTEX TPH -8015 Chlorides Dissolved Methane Sodium TDS Rebra Metals Sulphur </div> <div style="font-size: small;"> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank </div> </div>												LAB USE ONLY 18 16							
Street Address 151 Freestate Blvd		Street		Billing Information (if different from Report to)																					
City State Zip Shreveport LA 71107		City State		Company Name																					
Project Contact Mark Moore		Project # Mason Rig Supply		Street Address																					
Phone # (318) 401-0035		Client Purchase Order #		City State Zip																					
Sampler(s) Name(s) Orake Duhon		Project Manager		Attention:																					
Turnaround Time (Business days)		Data Deliverable Information				Comments / Special Instructions																			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day Rush <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> other		Approved By (SGS Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+5) <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only, Commercial "B" = Results + QC Summary Commercial "C" = Results + QC & Surrogate Summary				<input type="checkbox"/> TRRP <input type="checkbox"/> EDD Format <input type="checkbox"/> State Forms <input type="checkbox"/> Other				BSL-1 (VW) YS-57 (A1) (OL) RSV-4 (OL) SW2											
Emergency & Rush T/A date available VIA Lablink														Note: Sample inventory is verified upon receipt in the Laboratory											
Sample Custody must be documented below each time samples change possession, including courier delivery.																									
Retinquished by Sampler: 1		Date Time: 8-3-18 0911		Received By: 2 Walker Newman		Retinquished By: 2 Walker Newman		Date Time: 8-3-18		Received By: 2 Mark Red		Retinquished by Sampler: 3		Date Time: 8-3-18		Received By: 4									
Retinquished by:		Date Time:		Received By:		Custody Seal # Nocstoc		<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable		On Ice		Cooler Temp: 36 DU441											

SGS Sample Receipt Summary

Job Number: LA46413

Client: APPROACH ENV.

Project: MASON RIG SUPPLY

Date / Time Received: 8/3/2018 2:45:00 PM

Delivery Method: Accutest Courier

Airbill #'s: _____

Cooler Temps (Initial/Adjusted): #1: (3.6/3.6); DV441

Cooler Security

- | | |
|---|--|
| <p>1. Custody Seals Present: <input type="checkbox"/> <u>Y</u> <input checked="" type="checkbox"/> <u>N</u></p> <p>2. Custody Seals Intact: <input type="checkbox"/> <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u></p> | <p>3. COC Present: <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u></p> <p>4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u></p> |
|---|--|

Cooler Temperature

- | | |
|---|---|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u> | 3. COC Present: <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u> |
| 2. Thermometer ID: _____ | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <u>Y</u> <input type="checkbox"/> <u>N</u> |
| 3. Cooler media: <u>Ice (direct contact)</u> | |
| 4. No. Coolers: <u>1</u> | |

Quality Control Preservation

- | | <u>Y</u> | <u>or</u> | <u>N</u> | <u>N/A</u> |
|---------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

- | | | | |
|--|--|------------------------------------|-----------------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> <u>Y</u> | <input type="checkbox"/> <u>or</u> | <input type="checkbox"/> <u>N</u> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> <u>Y</u> | <input type="checkbox"/> <u>or</u> | <input type="checkbox"/> <u>N</u> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> <u>Y</u> | <input type="checkbox"/> <u>or</u> | <input type="checkbox"/> <u>N</u> |

Sample Integrity - Condition

- | | | | |
|----------------------------------|--|------------------------------------|-----------------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> <u>Y</u> | <input type="checkbox"/> <u>or</u> | <input type="checkbox"/> <u>N</u> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> <u>Y</u> | <input type="checkbox"/> <u>or</u> | <input type="checkbox"/> <u>N</u> |
| 3. Condition of sample: | <u>Intact</u> | | |

Sample Integrity - Instructions

- | | <u>Y</u> | <u>or</u> | <u>N</u> | <u>N/A</u> |
|--|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Bottles received for unspecified tests: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

4.1
4

LA46413: Chain of Custody

Page 2 of 2

GC Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLA1973-MB1	LA307326.D	1	08/06/18	MB	n/a	n/a	GLA1973

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	Result	RL	Units	Q
	TPH-GRO (C6-C10)	ND	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits	
460-00-4	4-Bromofluorobenzene	101%	89-126%
540-36-3	1,4-Difluorobenzene	101%	70-135%

5.1.1
5

Method Blank Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLO617-MB2	LO026522.D	1	08/06/18	SV	n/a	n/a	GLO617

The QC reported here applies to the following samples:

Method: SW846 8021B

LA46413-1, LA46413-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Results	Limits
540-36-3	1,4-Difluorobenzene	99%	51-157%
460-00-4	4-Bromofluorobenzene	95%	63-153%

5.1.2
5

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLA1973-BS1	LA307316.D	1	08/06/18	MB	n/a	n/a	GLA1973
GLA1973-BSD1	LA307318.D	1	08/06/18	MB	n/a	n/a	GLA1973

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	1	1.05	105	1.05	105	0	77-118/7

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	99%	89-126%
540-36-3	1,4-Difluorobenzene	105%	104%	70-135%

* = Outside of Control Limits.

5.2.1
5

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLO617-BS1	LO026517.D	1	08/06/18	SV	n/a	n/a	GLO617
GLO617-BSD1	LO026518.D	1	08/06/18	SV	n/a	n/a	GLO617

The QC reported here applies to the following samples:

Method: SW846 8021B

LA46413-1, LA46413-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	50.6	101	48.1	96	5	80-121/8
100-41-4	Ethylbenzene	50	49.1	98	48.5	97	1	80-121/8
108-88-3	Toluene	50	49.0	98	48.8	98	0	85-118/8
1330-20-7	Xylenes (total)	150	145	97	144	96	1	84-116/8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
540-36-3	1,4-Difluorobenzene	93%	94%	51-157%
460-00-4	4-Bromofluorobenzene	95%	96%	63-153%

* = Outside of Control Limits.

5.2.2
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA46387-3MS	LA307350.D	20	08/06/18	MB	n/a	n/a	GLA1973
LA46387-3MSD	LA307352.D	20	08/06/18	MB	n/a	n/a	GLA1973
LA46387-3	LA307338.D	1	08/06/18	MB	n/a	n/a	GLA1973

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	LA46387-3 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.0670	20	19.8	99	20	20.7	103	4	77-118/7

CAS No.	Surrogate Recoveries	MS	MSD	LA46387-3	Limits
460-00-4	4-Bromofluorobenzene	95%	95%	101%	89-126%
540-36-3	1,4-Difluorobenzene	101%	101%	99%	70-135%

* = Outside of Control Limits.

5.3.1
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA46393-1MS	LO026530.D	5	08/06/18	SV	n/a	n/a	GLO617
LA46393-1MSD	LO026531.D	5	08/06/18	SV	n/a	n/a	GLO617
LA46393-1	LO026527.D	1	08/06/18	SV	n/a	n/a	GLO617

The QC reported here applies to the following samples:

Method: SW846 8021B

LA46413-1, LA46413-2

CAS No.	Compound	LA46393-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	250	231	92	250	235	94	2	80-121/8
100-41-4	Ethylbenzene	1.0	250	226	90	250	237	94	5	80-121/8
108-88-3	Toluene	1.3	250	229	91	250	234	93	2	85-118/8
1330-20-7	Xylenes (total)	17.0	750	680	88	750	716	93	5	84-116/8

CAS No.	Surrogate Recoveries	MS	MSD	LA46393-1	Limits
540-36-3	1,4-Difluorobenzene	90%	90%	95%	51-157%
460-00-4	4-Bromofluorobenzene	100%	109%	103%	63-153%

* = Outside of Control Limits.

5.3.2
5

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA46413
Account: APPRLAS Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11932-MB	GLH019613.D 1		08/09/18	JT	08/07/18	OP11932	GLH425

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	0.0264	0.072	mg/l	J
	TPH-ORO (C28-C35)	ND	0.072	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	100% 41-148%

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11932-BS1	GLH019614.D 1		08/09/18	JT	08/07/18	OP11932	GLH425
OP11932-BSD1	GLH019615.D 1		08/09/18	JT	08/07/18	OP11932	GLH425

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	5.65	5.02	89	5.42	95	8	53-135/29

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	93%	106%	41-148%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: LA46413
 Account: APPRLAS Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11932-BS2	GLH019616.D 1		08/09/18	JT	08/07/18	OP11932	GLH425
OP11932-BSD2	GLH019617.D 1		08/09/18	JT	08/07/18	OP11932	GLH425

The QC reported here applies to the following samples:

Method: SW846 8015C

LA46413-1, LA46413-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-ORO (C28-C35)	2.27	2.09	92	2.05	89	2	30-130/35

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	119%	102%	41-148%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA46413
Account: APPRLAS - Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12318
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/06/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	9.5	56		
Antimony	6.0	1.4	3		
Arsenic	10	3.4	3.6	4.4	<10
Barium	10	.22	4	-0.010	<10
Beryllium	4.0	.04	.3		
Boron	100	.63	30		
Cadmium	5.0	.21	.4	0.060	<5.0
Calcium	100	5.6	92		
Chromium	10	.29	2	0.090	<10
Cobalt	10	.22	1.7		
Copper	10	.5	3.8		
Iron	100	3.5	17		
Lead	10	1	3.1	0.28	<10
Lithium	10	3.1	8		
Magnesium	100	30	90		
Manganese	10	.23	1.2		
Molybdenum	10	.18	1		
Nickel	10	.44	5		
Potassium	500	41	220		
Selenium	10	1.9	4.5	-2.0	<10
Silver	10	.5	2.8	-0.27	<10
Sodium	500	12	170	0.13	<500
Strontium	10	.12	3.2		
Thallium	10	3.9	5.1		
Tin	10	.56	2.4		
Titanium	10	.3	2.4		
Vanadium	10	.26	2.4		
Zinc	20	.19	3.7		

Associated samples MP12318: LA46413-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.1
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12318
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/06/18

Metal	LA46413-1 Original MS		SpikeLot ICPSPIKE1% Rec		QC Limits
Aluminum					
Antimony					
Arsenic	4.2	1080	1000	107.6	75-125
Barium	46.4	1040	1000	99.4	75-125
Beryllium					
Boron					
Cadmium	0.0	1090	1000	109.0	75-125
Calcium					
Chromium	0.46	1010	1000	101.0	75-125
Cobalt					
Copper	anr				
Iron					
Lead	1.3	1020	1000	101.9	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	0.0	1080	1000	108.0	75-125
Silver	0.0	1040	1000	104.0	75-125
Sodium	221000	225000	10000	40.0 (a)	75-125
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP12318: LA46413-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

7.1.2
7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12318
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/06/18

Metal	LA46413-1 Original MSD		SpikeLot ICPSPK1% Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.2	1070	1000	106.6	0.9	20
Barium	46.4	1060	1000	101.4	1.9	20
Beryllium						
Boron						
Cadmium	0.0	1090	1000	109.0	0.0	20
Calcium						
Chromium	0.46	1010	1000	101.0	0.0	20
Cobalt						
Copper	anr					
Iron						
Lead	1.3	1010	1000	100.9	1.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	1070	1000	107.0	0.9	20
Silver	0.0	1040	1000	104.0	0.0	20
Sodium	221000	232000	10000	110.0	3.1	20
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP12318: LA46413-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

7.1.2
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12318
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/06/18

Metal	BSP Result	Spikelot ICP SPIKE1% Rec	QC Limits
Aluminum			
Antimony			
Arsenic	1030	1000	103.0 80-120
Barium	1000	1000	100.0 80-120
Beryllium			
Boron			
Cadmium	1050	1000	105.0 80-120
Calcium			
Chromium	1010	1000	101.0 80-120
Cobalt			
Copper	anr		
Iron			
Lead	1060	1000	106.0 80-120
Lithium			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium	1040	1000	104.0 80-120
Silver	1020	1000	102.0 80-120
Sodium	10400	10000	104.0 80-120
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc	anr		

Associated samples MP12318: LA46413-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.1.3
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12318
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 08/06/18

Metal	LA46413-1 Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	4.16	23.7	468.5 (a)	0-10
Barium	46.4	42.7	8.0	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.460	0.00	100.0 (a)	0-10
Cobalt				
Copper	anr			
Iron				
Lead	1.29	0.00	100.0 (a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	221000	205000	7.3	0-10
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP12318: LA46413-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4
7

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA46413
Account: APPRLAS - Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12333
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/07/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.032	.081	-0.082	<0.20

Associated samples MP12333: LA46413-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.2.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12333
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 08/07/18

Metal	LA46387-3F Original MS	Spikelot HGSPIKE1 % Rec	QC Limits
-------	---------------------------	----------------------------	--------------

Mercury	0.039 3.9	5 77.2	75-125
---------	-----------	--------	--------

Associated samples MP12333: LA46413-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

7.2.2

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: APPRLAS - Approach Environmental, LLC
 Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12333
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 08/07/18

Metal	LA46387-3F Original MSD	SpikeLot HGSPIKE1	% Rec	MSD RPD	QC Limit
Mercury	0.039	3.8	5	75.2	2.6 20

Associated samples MP12333: LA46413-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

7.2.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA46413
Account: APPRLAS - Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12333
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/07/18

Metal	BSP Result	Spikelot HGSPIKE1	% Rec	QC Limits
Mercury	4.6	5	92.0	80-120

Associated samples MP12333: LA46413-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.2.3
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA46413
Account: APPRLAS - Approach Environmental, LLC
Project: Comstock (Mason Rig Supply)

QC Batch ID: MP12333
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/07/18

Metal	LA46387-3F Original SDL 1:5	%DIF	QC Limits
-------	--------------------------------	------	--------------

Mercury 0.0387 0.227 486.0(a) 0-

Associated samples MP12333: LA46413-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody



SGS Sample Receipt Summary

Job Number: LA46413

Client: _____

Project: _____

Date / Time Received: 8/4/2018 10:00:00 AM

Delivery Method: _____

Airbill #'s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.1);

Cooler Security

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

LA46413: Chain of Custody

Page 2 of 2



GC Volatiles

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: LA46413
Account: ALLA SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1497-MB	AA67062.D	1	08/10/18	PC	n/a	n/a	GAA1497

The QC reported here applies to the following samples:

Method: RSK-175

LA46413-1, LA46413-2

CAS No.	Compound	Result	RL	Units	Q
74-82-8	Methane	ND	0.11	ug/l	

9.1.1
9

Laboratory Control Sample Summary

Job Number: LA46413
Account: ALLA SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GAA1497-LCS	AA67060.D	1	08/10/18	PC	n/a	n/a	GAA1497

The QC reported here applies to the following samples:

Method: RSK-175

LA46413-1, LA46413-2

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
74-82-8	Methane	11	12.2	111	59-134

9.2.1
9

* = Outside of Control Limits.

Duplicate Summary

Job Number: LA46413
 Account: ALLA SGS Scott, LA
 Project: APPRLAS: Comstock (Mason Rig Supply)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC70908-2DUP	AA67093.D	5	08/10/18	PC	n/a	n/a	GAA1497
JC70908-2	AA67092.D	5	08/10/18	PC	n/a	n/a	GAA1497

The QC reported here applies to the following samples:

Method: RSK-175

LA46413-1, LA46413-2

CAS No.	Compound	JC70908-2 ug/l	DUP Q ug/l	Q RPD	Limits
74-82-8	Methane	380	353	7	20

9.3.1
9

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.8	46		
Antimony	6.0	1	4.7		
Arsenic	3.0	1.2	2.8		
Barium	200	.2	13		
Beryllium	1.0	.1	.5		
Bismuth	20	1.2	4		
Boron	100	1.8	63		
Cadmium	3.0	.1	1		
Calcium	5000	3.2	99		
Chromium	10	.3	2		
Cobalt	50	.3	2.6		
Copper	10	1.3	5.9		
Iron	100	1.9	32		
Lead	3.0	1.2	1.8		
Lithium	50	.8	7.3		
Magnesium	5000	16	140		
Manganese	15	.1	1.4		
Molybdenum	20	.4	3.6		
Nickel	10	.3	1.7		
Phosphorus	50	1.5	18		
Potassium	10000	46	200		
Selenium	10	2	4.9		
Silicon	200	1.7	100		
Silver	10	.4	1.9		
Sodium	10000	9.8	570		
Strontium	10	.1	1		
Sulfur	50	3.7	45	1.3	<50
Thallium	10	2.4	1.8		
Tin	10	.9	3.7		
Titanium	10	.1	2.5		
Tungsten	50	2.1	40		
Vanadium	50	.2	1.8		
Zinc	20	.1	6.9		

10.1.1
10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

Metal	RL	IDL	MDL	MB raw	final
-------	----	-----	-----	-----------	-------

Zirconium 10 .2 4.1

Associated samples MP8480: LA46413-1, LA46413-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.1.1
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: ALLA - SGS Scott, LA
 Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 08/07/18

Metal	LA46412-1 Original MS	SpikeLot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Strontium				
Sulfur	95.0	2320	2000	111.3 75-125
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

10.1.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

Metal	LA46412-1 Original MS	SpikeLot MPSPK2	% Rec	QC Limits
-------	--------------------------	--------------------	-------	--------------

Associated samples MP8480: LA46413-1, LA46413-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

10.1.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
 Account: ALLA - SGS Scott, LA
 Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 08/07/18

Metal	LA46412-1 Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit	
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Strontium						
Sulfur	95.0	2350	2000	112.8	1.3	20
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						
Zirconium						

10.1.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

Metal	LA46412-1 Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
-------	---------------------------	--------------------	-------	------------	-------------

Associated samples MP8480: LA46413-1, LA46413-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

10.1.2
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA46413
 Account: ALLA - SGS Scott, LA
 Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 08/07/18

Metal	BSP Result	Spikelot MPSPK2	QC % Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur	2150	2000	107.5	80-120
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

10.1.3
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Zirconium

Associated samples MP8480: LA46413-1, LA46413-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA46413
 Account: ALLA - SGS Scott, LA
 Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 08/07/18

Metal	LA46412-1 Original SDL 1:5	%DIF	QC Limits
-------	-------------------------------	------	--------------

Aluminum			
Antimony			
Arsenic			
Barium			
Beryllium			
Bismuth			
Boron			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead			
Lithium			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Phosphorus			
Potassium			
Selenium			
Silicon			
Silver			
Sodium			
Strontium			
Sulfur	95.0	87.1	8.3 0-10
Thallium			
Tin			
Titanium			
Tungsten			
Vanadium			
Zinc			

10.1.4
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

QC Batch ID: MP8480
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 08/07/18

	LA46412-1		QC
Metal	Original SDL 1:5	%DIF	Limits

Zirconium

Associated samples MP8480: LA46413-1, LA46413-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.1.4
10

Misc. Forms

Custody Documents and Other Forms

(SGS Houston, TX)

Includes the following where applicable:

- Chain of Custody





CHAIN OF CUSTODY

500 Ambassador Caffery Parkway, Scott, LA 70583
Phone: 800-304-5227 Fax: 337-237-7838

FED-EX Tracking # Bottle Order Control #

SGS Quote # SGS Job # LA46413

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Collection, Data Deliverable Information, Sample Custody, and other sections.

11.1 11

LA46413: Chain of Custody
Page 1 of 4
SGS Houston, TX



roller 3

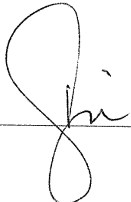


Date / Time: 8/3/2018 4:12:55 PM
CSR: AMYJ
Job #: LA46413
Client Project: Comstock (Mason Rig Supply)
Deliverable: COMMB
TAT: Due 8/10/2018

Sub Lab: SGS North America Inc. - TX
Address: 10165 Harwin Drive
City: Houston
State: TX Zip: 77036
Contact: Sample Management
Phone: (713) 692-9151

SGS Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
LA46413-1	MASON 21-1 RIG SUPPLY	CHLIC9056 TDS VRSK175CH4 .4	3W 2 BSL1 VW OL RJV4 OL YS57 11A1	DD	8/2/2018	12:00:00 PM	
LA46413-2	MASON 21-1 RIG SUPPLY B	VRSK175CH4 .3	BSL1 VW OL RJV4 OL YS57 11A1	DD	8/2/2018	2:30:00 PM	

Comments:

Sample Management Receipt: 

Date: 2018 8/3/18

#1 D1000 (ND)
4 -> (3) 4ml (HCL)
#2
3 -> (3) 4ml (HCL)

11.1
11



SGS Sample Receipt Summary

Job Number: LA46413 **Client:** SGS **Project:** COMSTOCK MASON RIG SUPPLY
Date / Time Received: _____ **Delivery Method:** _____ **Airbill #'s:** _____
No. Coolers: 1 **Therm ID:** IR-4; **Temp Adjustment Factor:** 0;
Cooler Temps (Initial/Adjusted): #1: (3/3);

Cooler Security	<u>Y or N</u>		<u>Y or N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/> <input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/> <input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/> <input type="checkbox"/>
Cooler Temperature	<u>Y or N</u>		
1. Temp criteria achieved:	<input checked="" type="checkbox"/> <input type="checkbox"/>		
2. Cooler temp verification:	_____		
3. Cooler media:	Ice (Bag)		
Quality Control Preservation	<u>Y or N</u>	<u>N/A</u>	<u>WTB STB</u>
1. Trip Blank present / cooler:	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/> <input type="checkbox"/>		
4. VOCs headspace free:	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Integrity - Documentation	<u>Y or N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/> <input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/> <input type="checkbox"/>
Sample Integrity - Condition	<u>Y or N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/> <input type="checkbox"/>
3. Condition of sample:	Intact
Sample Integrity - Instructions	<u>Y or N</u> <u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Bottles received for unspecified tests	<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/> <input type="checkbox"/>
4. Compositing instructions clear:	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

Comments

11.1
11

Sample Receipt Log

Job #: LA46413

Date / Time Received: 8/3/2018 10:45:00 PM

Initials: DS

Client: SGS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	LA46413-1	1000ml	1	M3E	N/P	Note #2 - Preservative check not applicable.	IR-4	3	0	3
1	LA46413-1	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3
1	LA46413-1	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3
1	LA46413-1	40ml	4	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3
1	LA46413-2	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3
1	LA46413-2	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3
1	LA46413-2	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	3	0	3

11.1
11

LA46413: Chain of Custody

Page 4 of 4

General Chemistry

QC Data Summaries

(SGS Houston, TX)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP48903/GN91800	0.50	0.0	mg/l	10	9.60	96.0	90-110%
Chloride	GP48903/GN91800	0.50	0.0	mg/l	10	9.33	93.3	90-110%
Fluoride	GP48903/GN91800	0.50	0.0	mg/l	10	9.44	94.4	90-110%
Nitrogen, Nitrate	GP48903/GN91800	0.50	0.0	mg/l	10	9.25	92.5	90-110%
Nitrogen, Nitrite	GP48903/GN91800	0.50	0.0	mg/l	10	9.60	96.0	90-110%
Solids, Total Dissolved	GN91810	10	0.0	mg/l	500	489	97.8	88-110%
Sulfate	GP48903/GN91800	0.50	0.0	mg/l	10	9.63	96.3	90-110%

Associated Samples:

Batch GN91810: LA46413-1

Batch GP48903: LA46413-1

(*) Outside of QC limits

12.1
12

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP48903/GN91800	LA46357-2	mg/l	0.0	0.0	0.0	0-19%
Chloride	GP48903/GN91800	LA46357-2	mg/l	7.2	7.5	4.1	0-13%
Solids, Total Dissolved	GN91810	LA46412-1	mg/l	543	547	0.7	0-5%
Sulfate	GP48903/GN91800	LA46357-2	mg/l	0.52	0.51	1.9	0-20%

Associated Samples:
Batch GN91810: LA46413-1
Batch GP48903: LA46413-1
(* Outside of QC limits

12.2
12

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: LA46413
Account: ALLA - SGS Scott, LA
Project: APPRLAS: Comstock (Mason Rig Supply)

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP48903/GN91800	LA46357-2	mg/l	0.0	10	9.8	98.0	80-120%
Chloride	GP48903/GN91800	LA46357-2	mg/l	7.2	10	17.5	103.0	80-120%
Sulfate	GP48903/GN91800	LA46357-2	mg/l	0.52	10	10.2	96.8	80-120%

Associated Samples:

Batch GP48903: LA46413-1

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

12.3
12