District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141

Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Release Notification	on and Corrective Actio	n					
	OPERATOR	☐ Initial Report ☐ Final Report					
Name of Company: BP America Production Co.	Contact: Steve Moskal						
Address: 380 Airport Road, Durango, CO 81303	Telephone No.: 505-330-9179						
Facility Name: Leeper Gas Com 001	Facility Type: Natural Gas Well						
Surface Owner: Fee Mineral Owner	er: Fee API No.: 30-045-11142						
	ON OF RELEASE						
Unit LetterSectionTownshipRangeFeet from theNortL3432N10W1340Sout		/West Line County st San Juan					
Latitude <u>36.93858°</u> Lo	ongitude107.875794°	NAD83					
NATURI	E OF RELEASE						
Type of Release - Hydrocarbons	Volume of Release - Unknown	Volume Recovered - none					
Source of Release -Unknown - Historical - suspect earthen pit (original	Date and Hour of Occurrence - Unknown	Date and Hour of Discovery – July 28, 1998					
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?						
By Whom?	Date and Hour						
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Wa	atercourse.					
If a Watercourse was Impacted, Describe Fully.*							
Describe Cause of Problem and Remedial Action Taken.* During routine excavation at the site, observations indicated what appea pit from previously accepted operating practices. The site was excavate installed from 1998 through 2006. The site was excavated once more in excavated and completes the full remediation of the site. Two additional excavation of the pipelines and one immediate downgradient of the rece	d on three separate occasions and seve the area of two underground pipelines I groundwater monitoring wells were i	ral groundwater monitoring wells were s. This area had not been previously					
Describe Area Affected and Cleanup Action Taken.* The site was excavated in 1998 and 1999. Groundwater was determined in 1998 through 2000. The site was monitored until 2006 when it was deconstituents. Three nearby domestic water wells were also sampled durit soil that was hauled off site for landfarm treatment. During the excavation attached report details the installation of monitoring wells, sampling and present. BP request final closure of this site and the associated 3RP projection.	etermined that groundwater impacts we ng this time. BP recently excavated ap on, concerns of groundwater contamina I laboratory result. The attached report	ere below standards for analyzed proximately 1,370 cubic yards of impacted ation were observed by the NMOCD. The					
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by t should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	notifications and perform corrective as the NMOCD marked as "Final Report" ate contamination that pose a threat to does not relieve the operator of respon	does not releases which may endanger does not relieve the operator of liability ground water, surface water, human health asibility for compliance with any other					
Signature: Mus Muy	OIL CONSER	VATION DIVISION					
Printed Name: Steve Moskal	Approved by Environmental Special	ist:					
Title: Environmental Coordinator	Approval Date: 9 10 2018	Expiration Date:					
E-mail Address: steven.moskal@bpx.cpm	Conditions of Approval:	Attached					
Date: July 11, 2018 Phone: 505-330-9179							

* Attach Additional Sheets If Necessary

NMOCD

JUL 13 2018

DISTRICT III

Final Remediation of Hydrocarbon Impacts

Leeper GC 1 (L) Sec 34 – T32N – R10W API: 30-045-11142 San Juan County, New Mexico

Prepared for: BP America Production Co. Farmington, New Mexico

Prepared by:
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, New Mexico 87413
(505)632-1199

July 11 2018

FINAL REMEDIATION OF HYDROCARBON IMPACTS

LEEPER GC 1

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FINAL REMEDIATION OF HYDROCARBON IMPACTS LEEPER GC 1

INTRODUCTION and REMEDIATION ACTIVITIES

Blagg Engineering Inc. (BEI) has been retained by BP America Production Co. (BP) to monitor, sample and document environmental remediation of residual hydrocarbon impacts at the Leeper GC 1, a natural gas well located in rural San Juan County, New Mexico at (L) Sec. 34 - T32N - R10W (Figure 1). Documentation of prior known impacts removed from the site has been documented in the report "Remediation of Hydrocarbon Impacts, Leeper GC 1", dated January 22, 2018. Additional hydrocarbon impacts were discovered on April 10, 2018 during investigative work at the site. The source of impacts could not be positively identified but may have resulted from an integrity issue with a fiberglass 6-inch diameter natural gas flow line.

Initial investigation of potential impacts began on March 14, 2018 when a hand auger investigation was attempted. Shallow river cobbles prevented the collection of any soil samples. Using a hydrovac to advance test borings for soil sampling was attempted between March 19 - April 6, 2018, again with no success due to substantial river cobbles.

Investigative work using a backhoe began on April 10, 2018 by digging test holes to sample soil on the southern extent of the well pad in the area not previously remediated or investigated due to interference from several high pressure gas pipelines. The backhoe investigation concluded on April 16, 2018 with additional sampling to confirm the presence of soil impacts (Figure 2). Laboratory data reports for this investigation are included in Appendix C.

Remediation of soil impacts via excavation was commenced on May 18, 2018 using an excavator. This work included temporarily removing the previously mentioned 6-inch fiberglass line, removal of all identified impacted soils, sampling to confirm closure and backfilling with clean imported soil. This remedial work was completed on May 30, 2018 (Figure 3).

Closure sampling was progressive as the excavation advanced and was witnessed by a representative of the New Mexico Oil Conservation Division (NMOCD). Representative composite portions of soil sample were placed into a gallon sized Ziploc® baggie for field headspace analysis of organic vapors with a calibrated IonScience Tiger model photo-ionization detector (PID) containing a 11.2 eV lamp. Split samples were placed into a 4-ounce laboratory supplied jar with Teflon® lid, labeled and placed on ice in an ice chest for further laboratory testing. The jarred samples were hand delivered to a representative of Hall Environmental Analytical Laboratories for analysis via U.S. EPA Method 8021B (volatile organics limited to benzene, toluene, ethyl benzene and total xylenes), U.S. EPA Method 8015 (gasoline range (GRO), diesel range (DRO) and motor oil range (MRO) organics), and chlorides via U.S. EPA Method 300. A chain-of-custody followed the samples. Laboratory data reports are included in Appendix D.

Shallow groundwater at the site is present at a depth of approximately 5 feet below grade. Two monitor wells to confirm water quality in the remediation area (MW-14 and MW-15) were installed on June 13, 2018 (see Appendix F for well logs). The new wells were developed on June 18, 2018 by hand bailing water from each until stable parameters (pH, Conductivity and Temperature) were achieved. A new, unopened, dedicated disposable bailer was used for development of each well. The wells were sampled (again by hand bailing using a new, dedicated disposable bailer until stable parameters were achieved) on June 19, 2019 with a NMOCD representative present to witness. Samples were placed into laboratory supplied containers with appropriate preservatives, labeled, placed on ice in an ice chest, then hand delivered to a Hall Laboratories representative with chain-of-custody

documentation. Laboratory samples were analyzed via U.S EPA Method 8260 for volatile organics and cation/anion balance.

Analytical test results for the new monitor wells, included in Appendix E, demonstrate that no hydrocarbon impacts in excess of New Mexico Water Quality Control Commission regulations are present. Additionally, previously existing monitor wells MW-12 and MW-13, sampled on May 23, 2018, also confirm the absence of residual hydrocarbon impacts at the site (laboratory reports included in Appendix E).

A chronological summary of site remedial activities is presented in Appendix A.

CONCLUSIONS AND RECOMMENDATIONS

- 1) Residual hydrocarbon impacted soil at the BP operated Leeper GC 1 has been successfully excavated. Remediation sampling and analytical testing has confirmed that all identified impacts have been excavated and removed from the site.
- 2) Groundwater analytical data collected from pre-existing and newly installed monitor wells indicate that all wells meet NMOCD water quality standards.
- 4) Site closure is recommended. There are no known hydrocarbon impacts to shallow soil or groundwater exceeding NMOCD standards at the site.

CLOSURE AND LIMITATIONS

This report has been prepared for the exclusive use of BP America Production Company as it pertains to hydrocarbon impact remediation at the Leeper GC 1 in San Juan County, New Mexico. The data presented herein is based on visual observations, subsurface conditions encountered at sampling locations and on information reported by analytical laboratory testing of soils. This report does not reflect variations which may exist between sampling locations.

I certify that the work performed by Blagg Engineering, Inc. as described in this report was directed by my supervision, and that I am personally familiar with the remedial actions and the contents of this report.

Submitted by:

Blagg Engineering, Inc.

Jeffrey C. Blagg, PE NMPE 11607

Appendix A

Summary Activity Record of Impact Remediation

BP America

Leeper GC 1

(L) Sec 34 – T32N – R10W San Juan County, New Mexico

API: 30-045-11142

Summary Activity Record of Final Impact Remediation

March 14, 2018 Attempt hand auger investigation, unsuccessful due to river cobble interference.

March 19 – April 6, 2018 Attempt hydro-vac investigation, unsuccessful due to river cobble interference.

April 10, 2018 Commence investigation of potential residual impacts at southern extent of well pad using a backhoe to collect soil samples.

April 16, 2018 Complete follow-up investigation of potential residual impacts using a backhoe to collect soil samples.

May 18, 2018 Commence site remediation via excavation using a trackhoe to remove shallow soil impacts.

May 21, 2018 Conduct closure sampling at the southwest corner of the remedial excavation.

May 22, 2018 Conduct closure sampling along the southern wall of the remedial excavation.

May 23, 2018 Sample pre-existing monitor wells MW-12 and MW-13 for analytical testing.

Conduct closure sampling along the south, southeast and east walls of the remedial excavation.

May 25, 2018 Conduct closure sampling along the east and north walls of the remedial excavation.

May 29, 2018 Conduct closure sampling along north wall of the remedial excavation.

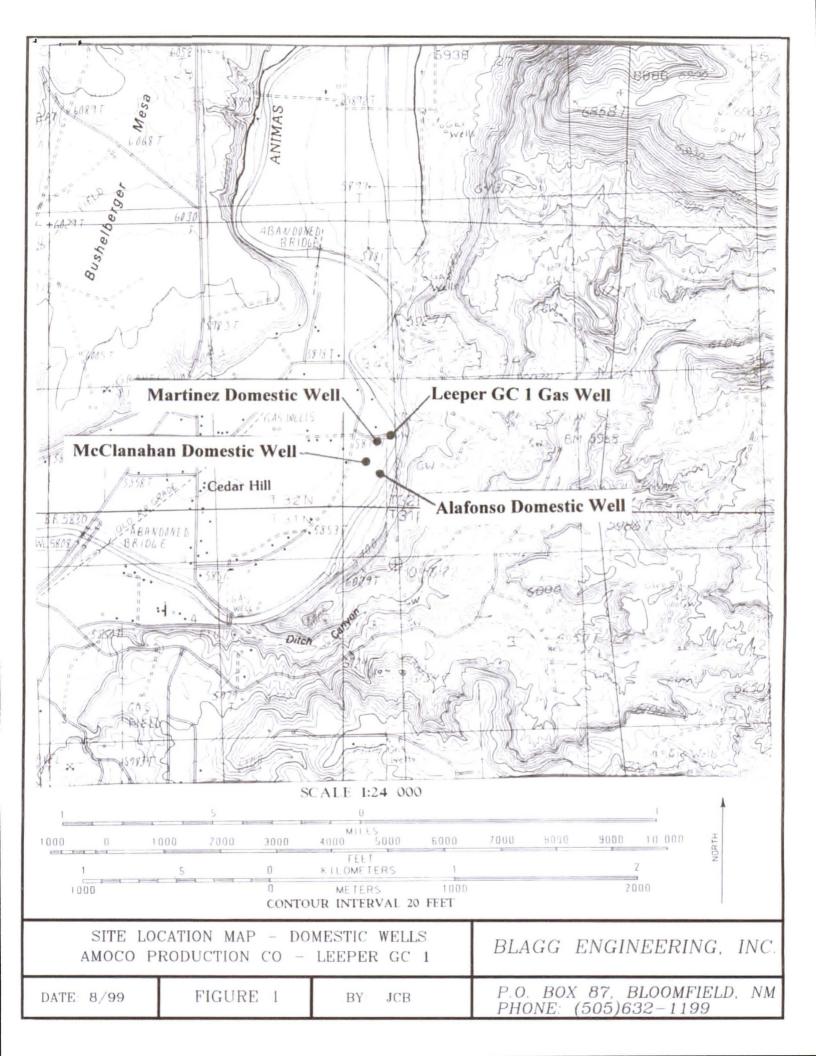
May 30, 2018 Conduct closure sampling along west wall of the remedial excavation.

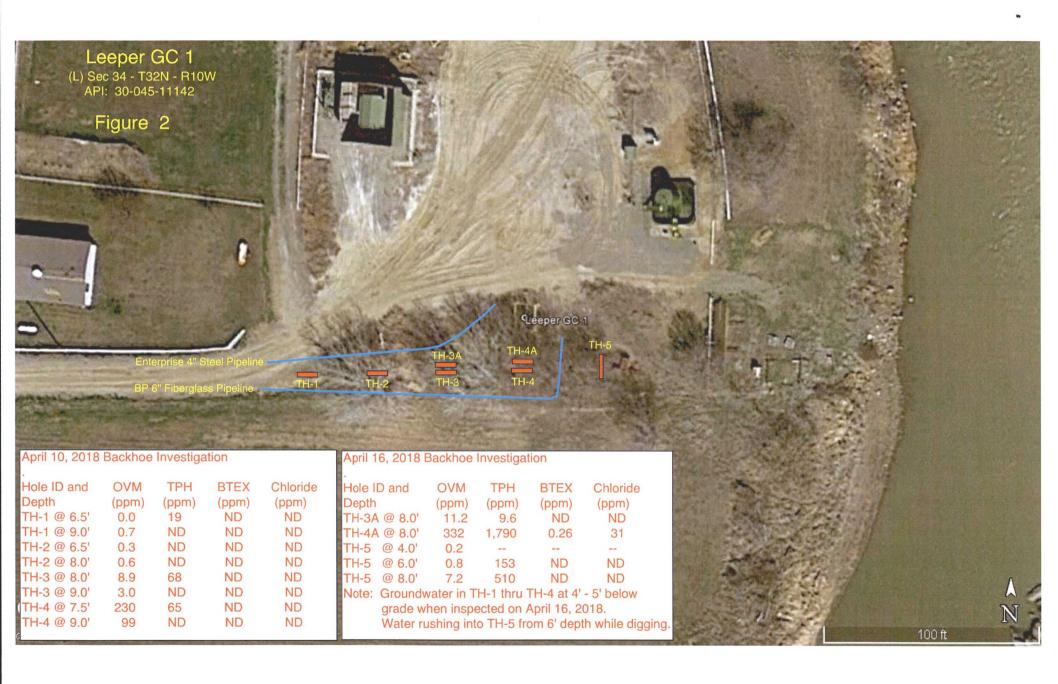
May 31, 2018 Complete backfilling remedial excavation with clean imported material.

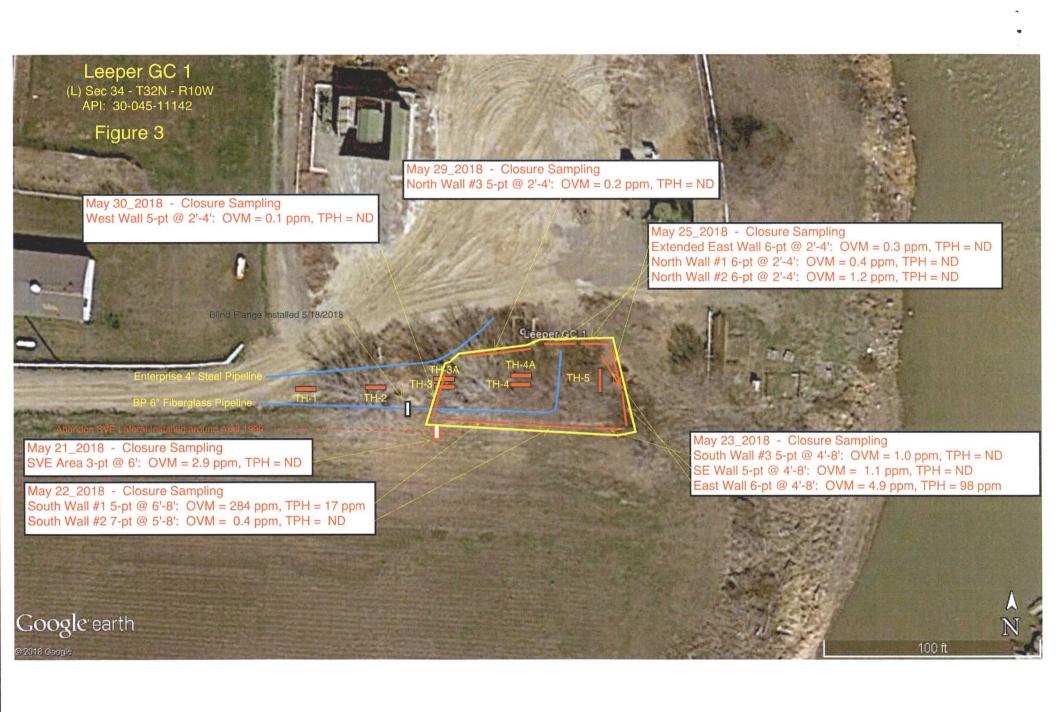
June 13, 2018 Install groundwater monitor wells MW-14 and MW-15.

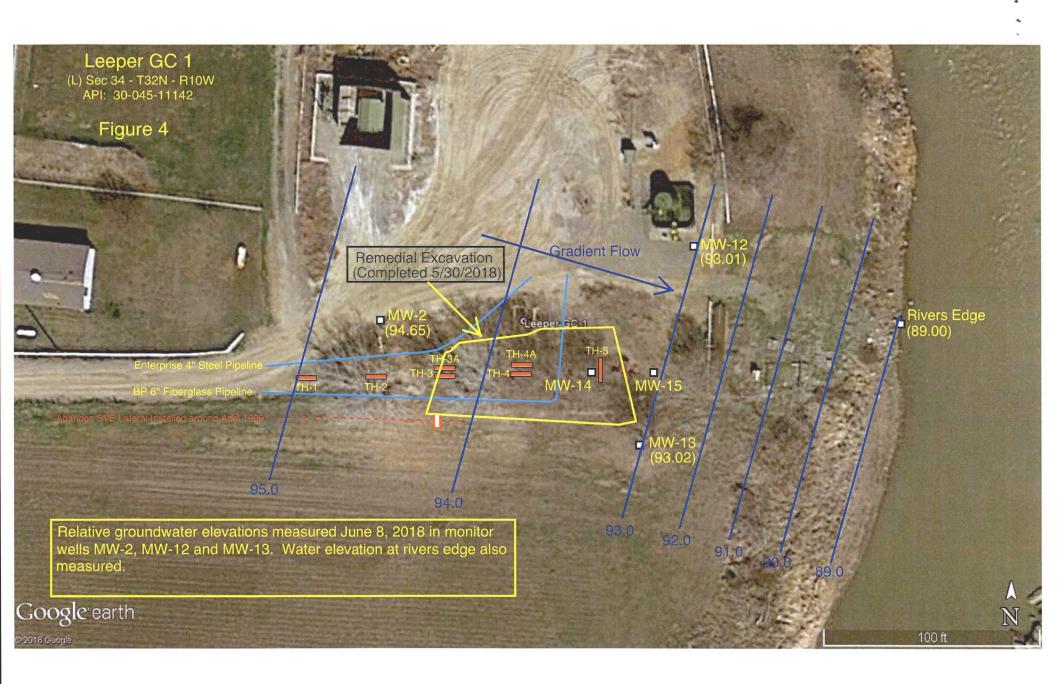
June 18, 2018 Develop groundwater monitor wells MW-14 and MW-15.

June 19, 2018 Sample groundwater monitor wells MW-14 and MW-15.









Appendix C

Test Hole Laboratory Analytical Data Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 13, 2018

Steve Moskal
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL:
FAX

RE: Leeper GC 1 OrderNo.: 1804548

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/11/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1804548

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/13/2018

CLIENT: Blagg Engineering

Client Sample ID: TH-1 @ 6.5'

Project: Leeper GC 1

Collection Date: 4/10/2018 1:23:00 PM

Lab ID: 1804548-001

Matrix: MEOH (SOIL) Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 9:47:56 PM	37549
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: TOM
Diesel Range Organics (DRO)	19	9.5	mg/Kg	1	4/12/2018 1:39:06 PM	37557
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/12/2018 1:39:06 PM	37557
Surr: DNOP	95.3	70-130	%Rec	1	4/12/2018 1:39:06 PM	37557
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	4/11/2018 11:17:47 AM	G50469
Surr: BFB	92.4	15-316	%Rec	1	4/11/2018 11:17:47 AM	G50469
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	4/11/2018 11:17:47 AM	B50469
Toluene	ND	0.037	mg/Kg	1	4/11/2018 11:17:47 AM	B50469
Ethylbenzene	ND	0.037	mg/Kg	1	4/11/2018 11:17:47 AM	B50469
Xylenes, Total	ND	0.075	mg/Kg	1	4/11/2018 11:17:47 AM	B50469
Surr: 4-Bromofluorobenzene	87.8	80-120	%Rec	1	4/11/2018 11:17:47 AM	B50469

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/13/2018

CLIENT: Blagg Engineering Client Sample ID: TH-1 @ 9'

 Project:
 Leeper GC 1
 Collection Date: 4/10/2018 1:29:00 PM

 Lab ID:
 1804548-002
 Matrix: MEOH (SOIL)
 Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 10:00:22 PM	37549
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	4/12/2018 10:46:59 AM	37557
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	4/12/2018 10:46:59 AM	37557
Surr: DNOP	88.2	70-130	%Rec	1	4/12/2018 10:46:59 AM	37557
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	4/11/2018 11:41:04 AM	G50469
Surr: BFB	100	15-316	%Rec	1	4/11/2018 11:41:04 AM	G50469
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.015	mg/Kg	1	4/11/2018 11:41:04 AM	B50469
Toluene	ND	0.030	mg/Kg	1	4/11/2018 11:41:04 AM	B50469
Ethylbenzene	ND	0.030	mg/Kg	1	4/11/2018 11:41:04 AM	B50469
Xylenes, Total	ND	0.060	mg/Kg	1	4/11/2018 11:41:04 AM	B50469
Surr: 4-Bromofluorobenzene	90.2	80-120	%Rec	1	4/11/2018 11:41:04 AM	B50469

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: TH-2 @ 6.5'

 Project:
 Leeper GC 1
 Collection Date: 4/10/2018 1:41:00 PM

 Lab ID:
 1804548-003
 Matrix: MEOH (SOIL)
 Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 10:12:47 PM	37549
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	8.9	mg/Kg	1	4/12/2018 11:11:38 AM	37557
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	4/12/2018 11:11:38 AM	37557
Surr: DNOP	97.7	70-130	%Rec	1	4/12/2018 11:11:38 AM	37557
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	4/11/2018 12:04:26 PM	G50469
Surr: BFB	98.8	15-316	%Rec	1	4/11/2018 12:04:26 PM	G50469
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.017	mg/Kg	1	4/11/2018 12:04:26 PM	B50469
Toluene	ND	0.033	mg/Kg	1	4/11/2018 12:04:26 PM	B50469
Ethylbenzene	ND	0.033	mg/Kg	1	4/11/2018 12:04:26 PM	B50469
Xylenes, Total	ND	0.066	mg/Kg	1	4/11/2018 12:04:26 PM	B50469
Surr: 4-Bromofluorobenzene	91.0	80-120	%Rec	1	4/11/2018 12:04:26 PM	B50469

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: Leeper GC 1

Lab ID: 1804548-004

Client Sample ID: TH-2 @ 8'

Collection Date: 4/10/2018 1:45:00 PM

Matrix: MEOH (SOIL) Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 10:25:12 PM	37549
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	4/12/2018 11:36:09 AM	37557
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	4/12/2018 11:36:09 AM	37557
Surr: DNOP	91.4	70-130	%Rec	1	4/12/2018 11:36:09 AM	37557
EPA METHOD 8015D: GASOLINE RANGI	Ε				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	4/11/2018 12:27:59 PM	G50469
Surr: BFB	98.8	15-316	%Rec	1	4/11/2018 12:27:59 PM	G50469
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.017	mg/Kg	1	4/11/2018 12:27:59 PM	B50469
Toluene	ND	0.033	mg/Kg	1	4/11/2018 12:27:59 PM	B50469
Ethylbenzene	ND	0.033	mg/Kg	1	4/11/2018 12:27:59 PM	B50469
Xylenes, Total	ND	0.066	mg/Kg	1	4/11/2018 12:27:59 PM	B50469
Surr: 4-Bromofluorobenzene	90.4	80-120	%Rec	1	4/11/2018 12:27:59 PM	B50469

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-3 @ 8'

Project: Leeper GC 1

Collection Date: 4/10/2018 1:55:00 PM

Lab ID: 1804548-005

Matrix: MEOH (SOIL) Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 10:37:37 PM	37549
EPA METHOD 8015M/D: DIESEL RANGI	ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	68	8.7	mg/Kg	1	4/12/2018 12:00:46 PM	37557
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	4/12/2018 12:00:46 PM	37557
Surr: DNOP	90.4	70-130	%Rec	1	4/12/2018 12:00:46 PM	37557
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	16	mg/Kg	5	4/11/2018 12:51:20 PM	37525
Surr: BFB	94.7	15-316	%Rec	5	4/11/2018 12:51:20 PM	37525
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.078	mg/Kg	5	4/11/2018 12:51:20 PM	37525
Toluene	ND	0.16	mg/Kg	5	4/11/2018 12:51:20 PM	37525
Ethylbenzene	ND	0.16	mg/Kg	5	4/11/2018 12:51:20 PM	37525
Xylenes, Total	ND	0.31	mg/Kg	5	4/11/2018 12:51:20 PM	37525
Surr: 4-Bromofluorobenzene	91.3	80-120	%Rec	5	4/11/2018 12:51:20 PM	37525

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: TH-3 @ 9'

 Project:
 Leeper GC 1
 Collection Date: 4/10/2018 1:57:00 PM

 Lab ID:
 1804548-006
 Matrix: MEOH (SOIL)
 Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 10:50:01 PM	37549
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	4/12/2018 12:25:13 PM	37557
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	4/12/2018 12:25:13 PM	37557
Surr: DNOP	86.0	70-130	%Rec	1	4/12/2018 12:25:13 PM	37557
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	15	mg/Kg	5	4/11/2018 1:14:47 PM	37525
Surr: BFB	94.6	15-316	%Rec	5	4/11/2018 1:14:47 PM	37525
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.076	mg/Kg	5	4/11/2018 1:14:47 PM	37525
Toluene	ND	0.15	mg/Kg	5	4/11/2018 1:14:47 PM	37525
Ethylbenzene	ND	0.15	mg/Kg	5	4/11/2018 1:14:47 PM	37525
Xylenes, Total	ND	0.30	mg/Kg	5	4/11/2018 1:14:47 PM	37525
Surr: 4-Bromofluorobenzene	89.8	80-120	%Rec	5	4/11/2018 1:14:47 PM	37525

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-4 @ 7.5'

Leeper GC 1 Project:

Collection Date: 4/10/2018 2:13:00 PM

Lab ID: 1804548-007

Received Date: 4/11/2018 7:50:00 AM Matrix: MEOH (SOIL)

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 11:02:25 PM	37549
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst:	TOM
Diesel Range Organics (DRO)	14	9.1	mg/Kg	1	4/12/2018 12:49:56 PM	37557
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	4/12/2018 12:49:56 PM	37557
Surr: DNOP	82.7	70-130	%Rec	1	4/12/2018 12:49:56 PM	37557
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst:	NSB
Gasoline Range Organics (GRO)	51	17	mg/Kg	5	4/11/2018 1:38:10 PM	37525
Surr: BFB	136	15-316	%Rec	5	4/11/2018 1:38:10 PM	37525
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.084	mg/Kg	5	4/11/2018 1:38:10 PM	37525
Toluene	ND	0.17	mg/Kg	5	4/11/2018 1:38:10 PM	37525
Ethylbenzene	ND	0.17	mg/Kg	5	4/11/2018 1:38:10 PM	37525
Xylenes, Total	ND	0.33	mg/Kg	5	4/11/2018 1:38:10 PM	37525
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	5	4/11/2018 1:38:10 PM	37525

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 7 of 14 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1804548

Date Reported: 4/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-4 @ 9'

Project: Leeper GC 1

Collection Date: 4/10/2018 2:16:00 PM

Lab ID: 1804548-008

Matrix: MEOH (SOIL) Received Date: 4/11/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/11/2018 11:14:50 PM	37549
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	4/12/2018 1:14:27 PM	37557
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	4/12/2018 1:14:27 PM	37557
Surr: DNOP	87.8	70-130	%Rec	1	4/12/2018 1:14:27 PM	37557
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	16	mg/Kg	5	4/11/2018 2:01:43 PM	37525
Surr: BFB	100	15-316	%Rec	5	4/11/2018 2:01:43 PM	37525
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.078	mg/Kg	5	4/11/2018 2:01:43 PM	37525
Toluene	ND	0.16	mg/Kg	5	4/11/2018 2:01:43 PM	37525
Ethylbenzene	ND	0.16	mg/Kg	5	4/11/2018 2:01:43 PM	37525
Xylenes, Total	ND	0.31	mg/Kg	5	4/11/2018 2:01:43 PM	37525
Surr: 4-Bromofluorobenzene	88.7	80-120	%Rec	5	4/11/2018 2:01:43 PM	37525

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 8 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1804548

13-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB-37549 SampType: mblk

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

PBS

Batch ID: 37549

PQL

RunNo: 50519

Prep Date:

4/11/2018

Units: mg/Kg

Analyte

Result

Analysis Date: 4/11/2018

SeqNo: 1638413 %REC

HighLimit

%RPD

RPDLimit

Qual

Chloride

ND 1.5

Sample ID LCS-37549

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

Batch ID: 37549

PQL

1.5

RunNo: 50519

SeqNo: 1638414

Units: mg/Kg

Prep Date: 4/11/2018

Analysis Date: 4/11/2018

SPK value SPK Ref Val %REC HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

Result 15

15.00

SPK value SPK Ref Val

97.1

90

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range E

Analyte detected below quantitation limits

Page 9 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1804548

13-Apr-18

Client:

Blagg Engineering

Project:	Leeper G	C 1									
Sample ID	MB-37557	SampTyp	e: M I	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch II	D: 37	557	F	RunNo: 5	50495				
Prep Date:	4/11/2018	Analysis Date	e: 4 /	12/2018	S	SeqNo: 1	1637383	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	ND	10								
Motor Oil Range	Organics (MRO)	ND	50								
Surr: DNOP		8.0		10.00		79.8	70	130			
Sample ID	LCS-37557	SampTyp	e: LC	s	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch II	D: 37	557	F	RunNo: 5	50495				
Prep Date:	4/11/2018	Analysis Date	e: 4 /	12/2018	8	SeqNo: 1	1638236	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	45	10	50.00	0	90.9	70	130			
Surr: DNOP		4.2		5.000		84.6	70	130			
Sample ID	1804548-001AMS	SampTyp	e: M \$	3	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	TH-1 @ 6.5'	Batch II): 37	557	F	RunNo: 5	50495				
Prep Date:	4/11/2018	Analysis Date	e: 4/	12/2018	5	SeqNo: 1	1638662	Units: mg/h	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	63	12	58.69	18.73	75.3	55.8	125			
Surr: DNOP		5.0		5.869		85.6	70	130			
Sample ID	1804548-001AMSE	SampTyp	e: M \$	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	TH-1 @ 6.5'	Batch II): 37	557	F	RunNo: 5	50495				
Prep Date:	4/11/2018	Analysis Date	e: 4 /	12/2018	S	SeqNo: 1	1638663	Units: mg/k	(g		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	56	10	51.07	18.73	73.6	55.8	125	11.0	20	
Surr: DNOP		4.5		5.107		88.6	70	130	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit PQL

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 10 of 14

Р Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804548

13-Apr-18

Client:

Blagg Engineering

Project:	Leeper G	C 1									
Sample ID	RB	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	е	
Client ID:	PBS	Batch	n ID: G	50469	F	RunNo: 5	0469				
Prep Date:	:	Analysis D	ate: 4	11/2018	5	SeqNo: 1	637080	Units: mg/l	≺g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ran Surr: BFB	nge Organics (GRO)	ND 960	5.0	1000		95.8	15	316			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	е	
Client ID:	LCSS	Batch	ID: G	50469	F	RunNo: 5	0469				
Prep Date:	:	Analysis D	ate: 4/	11/2018	5	SeqNo: 1	637081	Units: mg/l	≺g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ige Organics (GRO)	28	5.0	25.00	0	111	75.9	131			
Surr: BFB		1100		1000		107	15	316			
Sample ID	1804548-001AMS	SampT	ype: M \$	3	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	TH-1 @ 6.5'	Batch	ID: G	50469	F	RunNo: 5	0469				
Prep Date:	:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	637083	Units: mg/l	K g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ige Organics (GRO)	20	3.7	18.74	0	109	77.8	128			
Surr: BFB		810		749.6		108	15	316			
Sample ID	1804548-001AMSI	D SampT	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	TH-1 @ 6.5'		ID: G		F	RunNo: 5	0469				
Prep Date:	:	Analysis D	ate: 4/	11/2018	5	SeqNo: 1	637084	Units: mg/h	K g		
Analyte		Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ige Organics (GRO)	20	3.7	18.74	0	107	77.8	128	1.70	20	
Surr: BFB		820		749.6		110	15	316	0	0	
Sample ID	MB-37525	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	DDO	Datch	1D: 37	525	F	RunNo: 5	0469				
	PBS	Datti									
Prep Date:		Analysis D		11/2018	5	SeqNo: 1	637088	Units: mg/h	K g		
Prep Date:			ate: 4/		SPK Ref Val			Units: mg/h	Kg %RPD	RPDLimit	Qual
Analyte		Analysis D	ate: 4/					3		RPDLimit	Qual
Analyte Gasoline Rangester: BFB	: 4/10/2018	Analysis D Result ND 970	ate: 4 /	SPK value	SPK Ref Val	%REC 97.3	LowLimit	HighLimit	%RPD		Qual
Analyte Gasoline Rangester: BFB	: 4/10/2018 lige Organics (GRO)	Analysis D Result ND 970 SampT	PQL 5.0	SPK value	SPK Ref Val	%REC 97.3	LowLimit 15 PA Method	HighLimit 316	%RPD		Qual
Analyte Gasoline Ran Surr: BFB Sample ID	ge Organics (GRO) LCS-37525 LCSS	Analysis D Result ND 970 SampT	PQL 5.0 Type: LC	1000 SS 525	SPK Ref Val	%REC 97.3 tCode: EI	LowLimit 15 PA Method 0469	HighLimit 316	%RPD		Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 11 of 14

P Sample pH Not In Range RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

1100

WO#:

RPDLimit

1804548

13-Apr-18

Qual

Client:

Prep Date:

Surr: BFB

Blagg Engineering

Project:

Leeper GC 1

Sample ID LCS-37525

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS

Batch ID: 37525

RunNo: 50469

469

4/10/2018

Analysis Date: 4/11/2018

SeqNo: 1637089

Units: mg/Kg

%RPD

HighLimit

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit
Gasoline Range Organics (GRO) 27 5.0 25.00 0 110 75.9

1000

0 110 75.9 131 108 15 316

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 12 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1804548

13-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID RB	SampT	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batch	n ID: B5	0469	F	RunNo: 5	0469					
Prep Date:	Analysis D	alysis Date: 4/11/2018 SeqNo: 1637117 Units: mg/Kg									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.88		1.000		88.2	80	120				
Sample ID 100NG BTEX LCS	SampT	SampType: LCS TestCode: EPA Method 8021B: Volatiles									

Sample ID 100NG BTEX LC	S Sampi	ype: LC	S	res	(Code: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batch	ID: B5	0469	F	RunNo: 5	0469				
Prep Date:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	637118	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.3	77.3	128			
Toluene	0.94	0.050	1.000	0	94.0	79.2	125			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.5	81.6	129			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.5	80	120			

Sample ID 1804548-002AM	S SampT	ype: MS	3	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: TH-1 @ 9'	Batch	n ID: B5	0469	F	RunNo: 5	0469				
Prep Date:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	637122	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.55	0.015	0.5984	0	92.0	68.5	133			
Toluene	0.55	0.030	0.5984	0	92.1	75	130			
Ethylbenzene	0.54	0.030	0.5984	0	90.7	79.4	128			
Xylenes, Total	1.7	0.060	1.795	0	93.6	77.3	131			
Surr: 4-Bromofluorobenzene	0.54		0.5984		90.8	80	120			

Sample ID 1804548-002AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: TH-1 @ 9'	Batch	ID: B5	0469	F	RunNo: 5	0469				
Prep Date:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	637123	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.53	0.015	0.5984	0	88.2	68.5	133	4.30	20	
Toluene	0.53	0.030	0.5984	0	89.0	75	130	3.41	20	
Ethylbenzene	0.53	0.030	0.5984	0	88.0	79.4	128	3.05	20	
Xylenes, Total	1.6	0.060	1.795	0	90.1	77.3	131	3.87	20	
Surr: 4-Bromofluorobenzene	0.54		0.5984		90.4	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 13 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1804548 13-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB-37525	SampT	уре: М Е	BLK	Test	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	h ID: 37	525	R	RunNo: 5	0469				
Prep Date: 4/10/2018	Analysis D	Date: 4/	11/2018	S	SeqNo: 1	637126	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.3	80	120			

Sample ID LCS-37525	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: 37	525	F	RunNo: 5	0469				
Prep Date: 4/10/2018	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	637127	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.2	77.3	128			
Toluene	0.93	0.050	1.000	0	93.2	79.2	125			
Ethylbenzene	0.92	0.050	1.000	0	91.9	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	94.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.8	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 14 of 14

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX; 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG		Work Order Number	r: 1804	548			RcptN	lo: 1
Received By:	Erin Melen	drez	4/11/2018 7:50:00 AM	1		Un.	us	2	
Completed By:	Ashley Gal		4/11/2018 8:31:21 AN			A	UL F		
		iegos	4/11/18	•		54	0	, , n	Au adulie
Reviewed By:	IMO		41. Iv		ι.	label	ec a	1 6g: !	m 4/1/18
Chain of Cus	tody								
1. Is Chain of C	ustody comple	ete?		Yes	V	No		Not Present	
2. How was the	sample delive	ered?		Cour	ier				
Log In									
3. Was an attern	npt made to co	ool the samples?		Yes	V	No		NA 🗌	
4. Were all samp	oles received	at a temperature	of >0° C to 6.0°C	Yes	V	No		NA 🗆	
5. Sample(s) in p	proper contair	ner(s)?		Yes	V	No			
6. Sufficient sam	inle volume fo	r indicated test(s	12	Yes	V	No			
7. Are samples (, ,			V	No			
8. Was preserva			y prosorvou.			No	_	NA 🗆	
O. Trao processa				100		,,,,			
9. VOA vials have	e zero heads	pace?		Yes		No		No VOA Vials	
10. Were any san	nple container	rs received broke	n?	Yes		No	V	# of preserved	
44 -								bottles checked	12
Does paperwo (Note discrepa				Yes	Y	No	<u>.</u>	for pH:	or 12 upless noted)
12. Are matrices of			Custody?	Yes	✓	No		Adjusted 9	y I
13. Is it clear what	analyses we	re requested?		Yes	\checkmark	No		11000	
14. Were all holdin (If no, notify cu	_			Yes	V	No		Checked by:	
Special Handli			ما الما الما الما الما الما الما الما ا	V		N.		NA 🗹	
15. Was client no		crepancies with t		Yes		No		NA 🛂	
By Who	Notified:	LANGEMENT AND STREET,	Date Via:	eMa	il [Phone	Fav	☐ In Person	i .
Regardi	2	Control of the Contro	Via.	CIVIC] Thone	100		
1	structions:	and the state of t	The parties of the Section of the Se	in many institute	All Main and	ACTUAL CONTRACTOR OF THE PARTY	er 114106 bis shope	The second secon	
16. Additional rer	marks:				_				
17. Cooler Inform	mation								
Cooler No	Temp °C			Seal Da	ite	Signed	Ву		
1	2.5	Good Yes	3						

	hain-	of-Cu	stody Record	Turn-Around	I ime:	4/12/2018	HALL ENVIRONMENTAL						- 4 1								
Client:	BE	Ame	rico-	□ Standard		4/12/2018		500											ATC		
	7	lana	FACILLERING TAC	Project Name		. ,					wwy	v.hal	lenv	ironi	ment	al.co	m				
Mailing	Address	000	Engineeing Inc	LEE	PER GC	1		49	01 H					uqu				109			
				Project #:					el. 50					ax							
Phone a	#: (2	505)3	20-1183						ΝÍ.		- 0	A	nal	ysis	Req	uest		1			
email o	100			Project Mana	ger:		=	nly)	30)					04)							
QA/QC I	Package: dard		☐ Level 4 (Full Validation)	,	STEVE MOS	KAL	's (802	(Gas o	30 / MI		-	SIMS)		PO4,S	PCB's						
Accredi				Sampler:	JEFF BU	t _i L	113	H	/D	7	7	70 8		NO	3082						2
□ NEL		□ Othe	r	On Ice:	X Yes	□ No	T	+	RO	118	90	- 82	07	03	S		(A)				0
□ EDD	(Type)_			Sample Tem	perature: 7	5	#	BE	9 (6	po 4	B	00	etal	Z	side	F	-VC	12)			۲
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1804548	BTEX +-MTBE== TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHURDE			Air Bubbies (Y or N)
hopery	1323	SOIL	TH-1062	400×1	C004	-001	X		X									X			
1	1329		TH-109	-		-003	1											-			
	1341		TH-2062			-003															
	1345		TH-228'			004															
	1355		TH-3@8'			-005															
	1357		TH-3@ 9'			-000															
	1413		TH-40 72			-007	1														
	1416	1	TH-40.9'	1	1	-008	1												A STATE OF THE PERSON NAMED IN	_	
Date:	Time: 1543	Relinquish	Blogg	Received by:	1 Jack	Date Time	Rer	nark	(DNO	tet:	5	EVE	M	oska	K					
Date:	Time:	Relinquish	ed by:	Received by:	S 4/11/18	Date Time		W	65 E	lem.	ut.	: L	1-	00	20	K-		EE	PER	00	1
4/10/18	1856	Mo		Int	EUM	1/100/CD		ISE													
I	necessary/	samples subi	mitted to Hall Environmental may be sub	contracted to other a	occedited laboratore	es. This serves as notice of this	poss	bility.	Any si	ıb-con	racte	d data	will b	e clear	ty note	ated or	the a	nalytic	al repor	t	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 20, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199

FAX (505) 632-3903

RE: Leeper GC 1

OrderNo.: 1804836

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/17/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1804836

Date Reported: 4/20/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project: Leeper GC 1

1804836-001 Lab ID:

Client Sample ID: TH-3A@8

Collection Date: 4/16/2018 10:04:00 AM

Received Date: 4/17/2018 7:20:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/18/2018 12:22:38 PM	37669
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	9.6	9.4	mg/Kg	1	4/18/2018 5:12:39 PM	37658
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	4/18/2018 5:12:39 PM	37658
Surr: DNOP	96.2	70-130	%Rec	1	4/18/2018 5:12:39 PM	37658
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	4/18/2018 1:54:22 PM	37653
Surr: BFB	91.7	15-316	%Rec	1	4/18/2018 1:54:22 PM	37653
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	4/18/2018 1:54:22 PM	37653
Toluene	ND	0.047	mg/Kg	1	4/18/2018 1:54:22 PM	37653
Ethylbenzene	ND	0.047	mg/Kg	1	4/18/2018 1:54:22 PM	37653
Xylenes, Total	ND	0.094	mg/Kg	1	4/18/2018 1:54:22 PM	37653
Surr: 4-Bromofluorobenzene	81.1	80-120	%Rec	1	4/18/2018 1:54:22 PM	37653

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 8 J

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1804836

Date Reported: 4/20/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-4A@8

Project: Leeper GC 1

Collection Date: 4/16/2018 10:15:00 AM

Lab ID: 1804836-002

Received Date: 4/17/2018 7:20:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	31	30		mg/Kg	20	4/18/2018 12:35:03 PM	37669
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst	TOM
Diesel Range Organics (DRO)	670	8.7		mg/Kg	1	4/19/2018 3:43:03 PM	37658
Motor Oil Range Organics (MRO)	470	44		mg/Kg	1	4/19/2018 3:43:03 PM	37658
Surr: DNOP	105	70-130		%Rec	1	4/19/2018 3:43:03 PM	37658
EPA METHOD 8015D: GASOLINE RANG	GE					Analyst	NSB
Gasoline Range Organics (GRO)	720	97		mg/Kg	20	4/19/2018 11:54:34 AM	37653
Surr: BFB	274	15-316		%Rec	20	4/19/2018 11:54:34 AM	37653
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.024		mg/Kg	1	4/18/2018 3:03:58 PM	37653
Toluene	0.26	0.049		mg/Kg	1	4/18/2018 3:03:58 PM	37653
Ethylbenzene	ND	0.049		mg/Kg	1	4/18/2018 3:03:58 PM	37653
Xylenes, Total	ND	0.097		mg/Kg	1	4/18/2018 3:03:58 PM	37653
Surr: 4-Bromofluorobenzene	184	80-120	S	%Rec	1	4/18/2018 3:03:58 PM	37653

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits Page 2 of 8 J

- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1804836

Date Reported: 4/20/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: TH-5@6

Project: Leeper GC 1

Collection Date: 4/16/2018 10:24:00 AM

Lab ID: 1804836-003

Matrix: SOIL

Received Date: 4/17/2018 7:20:00 AM

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	4/18/2018 12:47:27 PM	37669
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	33	9.8	mg/Kg	1	4/19/2018 2:59:01 PM	37658
Motor Oil Range Organics (MRO)	120	49	mg/Kg	1	4/19/2018 2:59:01 PM	37658
Surr: DNOP	109	70-130	%Rec	1	4/19/2018 2:59:01 PM	37658
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	4/18/2018 7:20:23 PM	37653
Surr: BFB	84.1	15-316	%Rec	1	4/18/2018 7:20:23 PM	37653
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	4/18/2018 7:20:23 PM	37653
Toluene	ND	0.048	mg/Kg	1	4/18/2018 7:20:23 PM	37653
Ethylbenzene	ND	0.048	mg/Kg	1	4/18/2018 7:20:23 PM	37653
Xylenes, Total	ND	0.095	mg/Kg	1	4/18/2018 7:20:23 PM	37653
Surr: 4-Bromofluorobenzene	77.7	80-120	S %Rec	1	4/18/2018 7:20:23 PM	37653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits Page 3 of 8 J

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1804836

Hall Environmental Analysis Laboratory, Inc. Date Reported: 4/20/2018

CLIENT: Blagg Engineering

Client Sample ID: TH-5@8

Project: Leeper GC 1

Collection Date: 4/16/2018 10:30:00 AM

1804836-004 Lab ID:

Matrix: SOIL Received Date: 4/17/2018 7:20:00 AM

Analyses	Result	PQL Q	Qual U	Inits	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	ND	30	r	mg/Kg	20	4/18/2018 12:59:51 PM	37669
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	3				Analyst	TOM
Diesel Range Organics (DRO)	260	9.6	r	mg/Kg	1	4/19/2018 2:14:55 PM	37658
Motor Oil Range Organics (MRO)	250	48	r	mg/Kg	1	4/19/2018 2:14:55 PM	37658
Surr: DNOP	112	70-130	0	%Rec	1	4/19/2018 2:14:55 PM	37658
EPA METHOD 8015D: GASOLINE RANGI	E					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.6	r	mg/Kg	1	4/18/2018 7:43:54 PM	37653
Surr: BFB	110	15-316	0	%Rec	1	4/18/2018 7:43:54 PM	37653
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.023	r	mg/Kg	1	4/18/2018 7:43:54 PM	37653
Toluene	ND	0.046	r	mg/Kg	1	4/18/2018 7:43:54 PM	37653
Ethylbenzene	ND	0.046	r	mg/Kg	1	4/18/2018 7:43:54 PM	37653
Xylenes, Total	ND	0.092	r	ng/Kg	1	4/18/2018 7:43:54 PM	37653
Surr: 4-Bromofluorobenzene	79.5	80-120	S 9	%Rec	1	4/18/2018 7:43:54 PM	37653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 8 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804836

20-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB-37669

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 37669

PQL

RunNo: 50660

Prep Date:

4/18/2018

Analysis Date: 4/18/2018

Units: mg/Kg

HighLimit

SeqNo: 1644150

%RPD

%RPD

Qual

Analyte Chloride

ND 1.5

SampType: Ics

SPK value SPK Ref Val %REC LowLimit

TestCode: EPA Method 300.0: Anions

90

Client ID: LCSS

Batch ID: 37669

RunNo: 50660

Prep Date: 4/18/2018

Sample ID LCS-37669

Analysis Date: 4/18/2018

PQL

1.5

SeqNo: 1644151

Units: mg/Kg

RPDLimit

Qual

Analyte

Result

Result

SPK value SPK Ref Val

%REC 96.5 LowLimit

HighLimit

RPDLimit

Chloride

14

15.00

0

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit % Recovery outside of range due to dilution or matrix В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 5 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

Batch ID: 37658

Analysis Date: 4/18/2018

Result

4.6

WO#:

RPDLimit

1804836

20-Apr-18

Client: Blagg Engineering
Project: Leeper GC 1

Sample ID MB-37658

PBS

4/17/2018

Client ID:

Prep Date:

Surr: DNOP

Analyte

Sample ID LCS-37658	SampType: L	CS	Tes	(Code: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS	Batch ID: 3	7658	R	RunNo: 5	0636				
Prep Date: 4/17/2018	Analysis Date: 4	/18/2018	S	SeqNo: 1	643198	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48 10	50.00	0	96.2	70	130			
Surr: DNOP	4.3	5.000		85.9	70	130			

RunNo: 50636

91.1

70

SeqNo: 1643199

TestCode: EPA Method 8015M/D: Diesel Range Organics

Units: mg/Kg

130

HighLimit

Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.0	70	130			
Sample ID LCS-37671	SampTy	/pe: LCS	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 376	71	F	RunNo: 5	0692				
Prep Date: 4/18/2018	Analysis Da	ate: 4/1	9/2018	8	SeqNo: 1	644679	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

SPK value SPK Ref Val %REC LowLimit

Sample ID MB-37671	SampType: ME	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 37	671	R	RunNo: 5	0692				
Prep Date: 4/18/2018	Analysis Date: 4/	S	SeqNo: 1	644680	Units: %Red	:			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11	10.00		105	70	130			

5.000

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1804836

20-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Project: Leeper	GC 1	
Sample ID MB-37653	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 37653	RunNo: 50648
Prep Date: 4/17/2018	Analysis Date: 4/18/2018	SeqNo: 1643677 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	ND 5.0	
Surr: BFB	930 1000	93.5 15 316
Sample ID LCS-37653	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 37653	RunNo: 50648
Prep Date: 4/17/2018	Analysis Date: 4/18/2018	SeqNo: 1643678 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	27 5.0 25.00	0 109 75.9 131
Surr: BFB	950 1000	95.4 15 316
Sample ID MB-37656	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 37656	RunNo: 50648
Prep Date: 4/17/2018	Analysis Date: 4/18/2018	SeqNo: 1643693 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	880 1000	88.5 15 316
Sample ID LCS-37656	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 37656	RunNo: 50648
Prep Date: 4/17/2018	Analysis Date: 4/18/2018	SeqNo: 1643694 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	1000 1000	104 15 316

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 7 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1804836

20-Apr-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB-37653	SampT	уре: МЕ	: MBLK TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch	n ID: 37	653	F	RunNo: 5	0648				
Prep Date: 4/17/2018	Analysis D	ate: 4/	18/2018	S	SeqNo: 1	643711	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.81		1.000		81.2	80	120			
	100		_				00045 14 1	4.1		
Sample ID LCS-37653	SampT	ype: LC	S	les	tCode: El	PA Method	8021B: Vola	tiles		
Sample ID LCS-37653 Client ID: LCSS		ype: LC n ID: 37 0			RunNo: 5		8021B: Vola	tiles		
'		n ID: 37 0	653	F		0648	Units: mg/			
Client ID: LCSS	Batch	n ID: 37 0	653 18/2018	F	RunNo: 5	0648			RPDLimit	Qual
Client ID: LCSS Prep Date: 4/17/2018	Batch Analysis D	n ID: 37 0 Date: 4 /	653 18/2018	F	RunNo: 5 BeqNo: 1	0648 643712	Units: mg/h	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 4/17/2018 Analyte	Batch Analysis D Result	n ID: 37 0 Date: 4 /	653 18/2018 SPK value	SPK Ref Val	RunNo: 5 SeqNo: 1 %REC	0648 643712 LowLimit	Units: mg/F	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 4/17/2018 Analyte Benzene	Batch Analysis D Result 0.95	PQL 0.025	553 18/2018 SPK value 1.000	SPK Ref Val	RunNo: 5 SeqNo: 1 %REC 95.1	0648 643712 LowLimit 77.3	Units: mg/F HighLimit	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 4/17/2018 Analyte Benzene Toluene	Batch Analysis C Result 0.95 0.95	PQL 0.025 0.050	553 18/2018 SPK value 1.000 1.000	SPK Ref Val 0 0	RunNo: 5 SeqNo: 1 %REC 95.1 95.0	0648 643712 LowLimit 77.3 79.2	Units: mg/F HighLimit 128 125	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 4/17/2018 Analyte Benzene Toluene Ethylbenzene	Analysis D Result 0.95 0.95 0.95	PQL 0.025 0.050	18/2018 SPK value 1.000 1.000 1.000	SPK Ref Val 0 0 0	RunNo: 5 SeqNo: 1 %REC 95.1 95.0 94.9	0648 643712 LowLimit 77.3 79.2 80.7	Units: mg/F HighLimit 128 125 127	(g	RPDLimit	Qual

Sample ID MB-37656	SampTy	/ре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	ID: 37	656	F	RunNo: 5	0648				
Prep Date: 4/17/2018	Analysis Da	ate: 4/	18/2018	8	SeqNo: 1	643727	Units: %Red			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.82		1.000		81.6	80	120			

Sample ID LCS-37656	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: 37	656	F	RunNo:	50648				
Prep Date: 4/17/2018	Analysis D	ate: 4/	18/2018	8	SeqNo: 1	1643728	Units: %Red			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.84		1.000		84.0	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 8 of 8

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG	Work Order Number:	1804836		RcptNo	1
				TAN		
Received By:	Isaiah Ortiz	4/17/2018 7:20:00 AM		Tal		
Completed By:	Isaiah Ortiz	4/17/2018 7:34:33 AM		ICA	_	
Reviewed By:	500	4/17/18				
Labeled By	IMO					
Chain of Cus	tody					
1. Is Chain of Cu	ustody complete?		Yes 🗸	No 🗌	Not Present	
2. How was the	sample delivered?		Courier			
Log In						
_	pt made to cool the samples?		Yes 🗹	No 🗌	NA 🗆	
4. Were all samp	les received at a temperature	of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
5. Sample(s) in p	proper container(s)?		Yes 🗸	No 🗆		
6. Sufficient sam	ple volume for indicated test(s))?	Yes 🗸	No 🗌		
7. Are samples (e	except VOA and ONG) properly	y preserved?	Yes 🗸	No 🗌		
8. Was preservat	ive added to bottles?		Yes 🗌	No 🗹	NA \square	
9. VOA vials have	e zero headspace?		Yes 🗌	No 🗆	No VOA Vials	
10. Were any sam	ple containers received broke	n?	Yes	No 🗹	# of preserved	18
11. Does paperwo	rk match bottle labels?		Yes 🔽	No 🗆	bottles checked for pH:	111
(Note discrepa	ncies on chain of custody)				Nation (<2 of	>12 unless noted)
	orrectly identified on Chain of	Custody?	Yes 🗹	No 🗆	Adjusted?	
	analyses were requested?		Yes 🗹	No 📙	Zhandand bur	
	g times able to be met? stomer for authorization.)		Yes 🗸	No L	Checked by:	
	ng (if applicable)					
	tified of all discrepancies with t	his order?	Yes	No 🗆	NA 🗹	
Person	Notified:	Date:	***************************************	COMMENSATION AND SECURITION OF THE PROPERTY OF		_
By Who	m:	Via:	eMail P	hone Fax	☐ In Person	
Regardii	ng:	A CANADA CAN	149 - 140 (N. 180 (N.		in Almin A finite your from the company of the comp	
Client In	structions:	The second secon	Libitis - M. h. hole so decades of a 16-50		Control of the State of the Sta	
16. Additional ren	narks:					e .
17. Cooler Inform						
Cooler No	1		eal Date	Signed By		
1	0.4 Good Yes		NAME AND A COUNTY OF STREET			

Chain-of-Custody Record Turn-Around Time: By THURSDAY 4/19/2018 HALL EN	VVIRONMENTAL		
Standard Rush SAME ANALYS	IS LABORATORY		
DLAGE ENGINEERING INC. www.hallenvir	ronmental.com		
4901 Hawkins NE - Albu	uquerque, NM 87109		
Project #: Tel. 505-345-3975 Fa	ax 505-345-4107		
Phone #: (505) 320~ (183 Analys	sis Request		
	04)		
email or Fax#: QA/QC Package: Standard	(F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) esticides / 8082 PCB's (VOA) Semi-VOA) OC\I) Dios (Y or N)		
Accreditation Sampler: JEF BAGG Sampler: JEF BAGG	8082 S		
□ NELAP □ Other □ On Ice: □Yes □ No □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	or N		
□ EDD (Type) Sample Temperature: 0.1 + 0.3(cr) 0.4 □ EDD (Type) □ Sample Temperature: 0.1 + 0.3(cr) 0.4 □ EDD (Type) □ Sample Temperature: 0.1 + 0.3(cr) 0.4	Silve Sides		
Date Time Matrix Sample Request D Container Type Accreditation Sample: Jap Scale Sample Sample	Anions (F,CI,NO ₃ ,NC 8081 Pesticides / 80 8260B (VOA) 8270 (Semi-VOA) CHLOKN)E		
4/16/2018 1004 SOIL TH-3ACB' 402 X1 COOL 001 X X	X		
1015 TH-4A@8' 1 002 1			
1024 174-506 003			
1030 74-5 88'			
1030 74-5 88'			
Date: Time: Relinquished by: William 11010 III Blogg Received by: Date Time Remarks: BILL BP Wishard 11010 III Blogg Much Walt Walt 1610 WES SIGNED: 11-	E MUSKAL		
Date: Time: Reliniquished by: Received by: Date Time Webs EZEMENT: L. T.	OO1CR-E: LEEPEROO1		
1/1/18 1811 Churtu La Lieu VI O VI			

Appendix D

Excavation Closure Analytical Data Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

June 01, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: LEEPER GC 1 OrderNo.: 1805F16

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/30/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1805F16

Date Reported: 6/1/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: North Wall #3

LEEPER GC 1 **Project:**

Collection Date: 5/29/2018 10:30:00 AM

Lab ID: 1805F16-001

Matrix: SOIL

Received Date: 5/30/2018 6:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	5/30/2018 12:34:25 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6			Analyst:	Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/30/2018 10:36:50 AM	38375
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/30/2018 10:36:50 AM	38375
Surr: DNOP	88.2	70-130	%Rec	1	5/30/2018 10:36:50 AM	38375
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	5/30/2018 11:06:05 AM	38366
Surr: BFB	91.9	15-316	%Rec	1	5/30/2018 11:06:05 AM	38366
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.016	mg/Kg	1	5/30/2018 11:06:05 AM	38366
Toluene	ND	0.032	mg/Kg	1	5/30/2018 11:06:05 AM	38366
Ethylbenzene	ND	0.032	mg/Kg	1	5/30/2018 11:06:05 AM	38366
Xylenes, Total	ND	0.065	mg/Kg	1	5/30/2018 11:06:05 AM	38366
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	5/30/2018 11:06:05 AM	38366

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 5 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F16

01-Jun-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38378

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 38378

PQL

RunNo: 51601

Prep Date:

5/30/2018

Analysis Date: 5/30/2018

Units: mg/Kg

Analyte

Result

SeqNo: 1683649

%REC LowLimit

HighLimit

RPDLimit

Qual

Chloride

ND 1.5

TestCode: EPA Method 300.0: Anions

%RPD

Client ID:

Prep Date:

Sample ID LCS-38378

LCSS

SampType: Ics Batch ID: 38378

RunNo: 51601 SeqNo: 1683650

Units: mg/Kg

5/30/2018 Analyte

Analysis Date: 5/30/2018

SPK value SPK Ref Val %REC

HighLimit

%RPD **RPDLimit**

Qual

Chloride

15.00

93.1

90

110

14

1.5

SPK value SPK Ref Val

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 2 of 5

P Sample pH Not In Range

Reporting Detection Limit RL Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F16 01-Jun-18

Client:

Blagg Engineering

Project: LEEPER	RGC 1									
Sample ID MB-38375	SampT	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch	n ID: 38	375	F	RunNo: 5	1598				
Prep Date: 5/30/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1	682170	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		86.6	70	130			
Sample ID LCS-38375	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS	Batch	n ID: 383	375	F	RunNo: 5	1598				
Prep Date: 5/30/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1	682171	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	70	130			
Surr: DNOP	3.9		5.000		77.7	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 3 of 5

Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805F16

01-Jun-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

rroject: LEEFER										
Sample ID MB-38366	SampTyp	SampType: MBLK TestCode: EPA Meth					d 8015D: Gasoline Range			
Client ID: PBS	Batch I	D: 38 ;	366	F	RunNo: 5	1603				
Prep Date: 5/29/2018	Analysis Dat	e: 5/	30/2018	S	SeqNo: 10	682799	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		92.9	15	316			
Sample ID LCS-38366	SampTyp	e: LC	S	Tes	tCode: EF	A Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch I	D: 38 3	366	F	RunNo: 5 ′	1603				
Prep Date: 5/29/2018	Analysis Dat	e: 5/	30/2018	S	SeqNo: 10	682800	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			
Surr: BFB	1100		1000		106	15	316			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 4 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F16

01-Jun-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38366	SampType: MBLK			Test	TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batch	n ID: 38	D: 38366 RunNo: 51603							
Prep Date: 5/29/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1	682840	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID LCS-38366	SampT	ype: LC	S	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch	1D: 38	366	RunNo: 51603						
Prep Date: 5/29/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1	682841	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	77.3	128			
Toluene	0.96	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	96.0	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	98.9	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 5

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG	Work Order Number	1805F16		RcptNo	1
a taki sejakite					
Received By: Anne Thorne	5/30/2018 6:50:00 AM		anne Il		
Completed By: Anne Thorne	5/30/2018 7:13:06 AM	A	anne Am		
Reviewed By: To labeled by A 05/30	5/30/18		Ume An		
Chain of Custody		_8 A			
1. Is Chain of Custody complete?		Yes 🗹	No 🗆	Not Present	
2. How was the sample delivered?		Courier		N. 9	
l on In		k .			7.
Log In 3. Was an attempt made to cool the samples	3?	Yes 🗹	No 🗆	NA 🗆	
					*:
4. Were all samples received at a temperatur	re of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	¥
5. Sample(s) in proper container(s)?		Yes 🗸	No 🗌		*
6. Sufficient sample volume for indicated test	(s)?	Yes 🗸	No 🗌		
7. Are samples (except VOA and ONG) proper	erly preserved?	Yes 🗸	No 🗌		
8. Was preservative added to bottles?		Yes	No 🗹	NA 🗆	
9. VOA vials have zero headspace?		Yes	No 🗆	No VOA Vials	~
10. Were any sample containers received broken	ken?	Yes	No 🗹	# of preserved	
				bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	for pH: (<2 or	>12 unless noted)
2 Are matrices correctly identified on Chain of	of Custody?	Yes 🗸	No 🗆	Adjusted?	
3. Is it clear what analyses were requested?		Yes 🗸	No 🗌		
14. Were all holding times able to be met?		Yes 🗸	No 🗆	Checked by:	
(If no, notify customer for authorization.)				5 a	
Special Handling (if applicable)					40
15. Was client notified of all discrepancies with	n this order?	Yes	No 🗆	NA 🗹	
Person Notified:	Date	CONTROL OF THE PARTY OF THE PARTY.	MANAGEMENT CONTRACTOR OF STATE		· .
By Whom:	Via:	eMail P	hone [Fax	☐ In Person	:
Regarding:				COLUMNS AN ARRANGE OF MAIN MARK DOCUMENTS	
Client Instructions:	NAME OF THE PROPERTY OF THE PR		COMMUNICACIONOS PARA PARA PARA PARA PARA PARA PARA PAR	COLUMN TURBER AND THE STATE OF	:
16. Additional remarks:			16		
17. Cooler Information					
	Seal Intact Seal No S	eal Date	Signed By		
1 1.2 Good Y	es				
,					

C	Chain-of-Custody Record			Turn-Around Time:									g								
Client:	BP Am	VERICA		□ Standard	Rush	SAME DAY													NT		
			ING INC.	Project Name							www										_
	Address			LEEPE	er bc	1		490	01 H	awki								109			
				Project #:	-					5-34							410				
Phone	#: 50	5-32	10-1183						1. 00	0 0 1	0 00		1000		Req	-	The same of the sa				
email o				Project Mana	ger:			(yl	0					(4)							T
QA/QC	Package:				. Adapira	,	021	s or	MA			6		4,80	PCB's						
Stan	dard		☐ Level 4 (Full Validation)	_	VE MOSICH		8) 8	(Ga	30			NIS I		PO,	2 PC						
Accred				Sampler: _	Jeff Bla	99	WIBETIMES (8021)	TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	=	=	PAH's (8310 or 8270 SIMS)		Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082						9
□ NEL		☐ Othe	er			u No	H	[:]	8	TPH (Method 418.1)	EDB (Method 504.1)	r 82	S	03,	38 / 8		8270 (Semi-VOA)				Air Bubbles (Y or N)
	(Type)	T	T			2		BTEX + MTBE +	B (0	pou	bol	100	RCRA 8 Metals	C	icide	(AC	N-i-V	14			\(\)
Data	T:	Madain	Comple Degreest ID	Container	Preservative	en e	1	≥ +	015	Met	Met	(83	8	(F,	Pest	8260B (VOA)	Sen	CHLORIDE			pple
Date	Time	Matrix	Sample Request ID	Type and #	Type	TIEALNE	BTEX +	K	포 문	H =	B(H's	CRA	ions	81 F	60B	70 (H			Bul.
-1	,			mut Kit		1800 F 101 10	B	В	-	片	Ш	4	<u> </u>	Ar	80	82	82		\dashv	_	Ą
129/18	1030	SOIL	NORTH WILL #3	40221	COOL	7001	X		X	_	_							X	\perp	_	
								4													
																			\neg		\top
							\top					\neg									\top
-							1		\neg		_									\top	+
							+	\vdash	\neg		_	\dashv							+	+	+
							+				\dashv								\dashv	+	+
							+-				\dashv								_	+	+
	-						+				-	\dashv	2	-			_		-	+	+
	-	-		-			+	\vdash			\dashv								\dashv	+	+
Dete:	Time:	Relinguish	ed by:	Received by:		Date Time	Ren	nark	s: 7	311	RP	,									
5/29/2018	1121	Juf	(Blogg	10	-1. hal.	5/29/2018 1(2)			0	DITT	ACT.	: 5									
цате.	Time:	Relinquish	ed by:	Received by 2015 121		1	WBS	E	leine	nt	: L	1-	00	4C	R-	E:	LEE	PERI	001		
C1 .	1822	Cha	entre / hotos	V UI	h~/	05/30/18															
10-1111	59/18 1800 Month Vactor					-000															

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1805E62

June 01, 2018

Steve Moskal
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: LEEPER GC 1

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1805E62

Date Reported: 6/1/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Lab ID:

Project: LEEPER GC 1

1805E62-001

Matrix: SOIL

Client Sample ID: North Wall 2-pt @ 8'

Collection Date: 5/25/2018 10:20:00 AM **Received Date:** 5/26/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	35	30	mg/Kg	20	5/31/2018 1:11:15 AM	38393
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	: Irm
Diesel Range Organics (DRO)	11	9.9	mg/Kg	1	5/31/2018 3:13:45 PM	38390
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/31/2018 3:13:45 PM	38390
Surr: DNOP	117	70-130	%Rec	1	5/31/2018 3:13:45 PM	38390
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/30/2018 4:57:21 PM	38366
Surr: BFB	103	15-316	%Rec	1	5/30/2018 4:57:21 PM	38366
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	5/30/2018 4:57:21 PM	38366
Toluene	ND	0.049	mg/Kg	1	5/30/2018 4:57:21 PM	38366
Ethylbenzene	ND	0.049	mg/Kg	1	5/30/2018 4:57:21 PM	38366
Xylenes, Total	ND	0.099	mg/Kg	1	5/30/2018 4:57:21 PM	38366
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1	5/30/2018 4:57:21 PM	38366

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1805E62

Date Reported: 6/1/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Lab ID:

1805E62-002

Client Sample ID: Extended East Wall Grab @ 8'

Collection Date: 5/25/2018 10:25:00 AM Project: LEEPER GC 1

Matrix: SOIL

Received Date: 5/26/2018 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	59	30	mg/Kg	20	5/31/2018 1:23:40 AM	38393
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analyst	: Irm
Diesel Range Organics (DRO)	32	9.9	mg/Kg	1	5/31/2018 3:35:53 PM	38390
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/31/2018 3:35:53 PM	38390
Surr: DNOP	112	70-130	%Rec	1	5/31/2018 3:35:53 PM	38390
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/30/2018 6:07:26 PM	38366
Surr: BFB	96.0	15-316	%Rec	1	5/30/2018 6:07:26 PM	38366
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	5/30/2018 6:07:26 PM	38366
Toluene	ND	0.049	mg/Kg	1	5/30/2018 6:07:26 PM	38366
Ethylbenzene	ND	0.049	mg/Kg	1	5/30/2018 6:07:26 PM	38366
Xylenes, Total	ND	0.098	mg/Kg	1	5/30/2018 6:07:26 PM	38366
Surr: 4-Bromofluorobenzene	105	80-120	%Rec	1	5/30/2018 6:07:26 PM	38366

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 6 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805E62

01-Jun-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

MB-38393 Sample ID

SampType: mblk

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID:

PBS

Batch ID: 38393

RunNo: 51601

Prep Date:

5/30/2018

Units: mg/Kg

Analysis Date: 5/31/2018 PQL

SeqNo: 1683711 %REC

HighLimit

%RPD

%RPD

RPDLimit

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-38393 SampType: Ics

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: LCSS Batch ID: 38393

RunNo: 51601

Prep Date: 5/30/2018 Analysis Date: 5/31/2018

PQL

1.5

SeqNo: 1683712 %REC

Units: mg/Kg

RPDLimit

Qual

Analyte

15.00

0

93.5

90

Chloride

Result

Result

110

14

SPK value SPK Ref Val

SPK value SPK Ref Val

HighLimit

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit ND

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 3 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Result

53

5.2

PQL

10

WO#:

1805E62

01-Jun-18

Client:

Blagg Engineering

Project:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

LEEPER GC 1

Sample ID MB-38390	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: PBS	Batch ID: 38390	RunNo: 51644									
Prep Date: 5/30/2018	Analysis Date: 5/31/2018	SeqNo: 1684060 Units: mg/Kg									
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual									
Diesel Range Organics (DRO)	ND 10										
Motor Oil Range Organics (MRO)	ND 50										
Surr: DNOP	11 10.00	0 106 70 130									
Sample ID LCS-38390	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: LCSS	Batch ID: 38390	RunNo: 51644									
Prep Date: 5/30/2018	Analysis Date: 5/31/2018	SeqNo: 1684061 Units: mg/Kg									

LowLimit

70

70

107

104

HighLimit

130

130

%RPD

RPDLimit

Qual

SPK value SPK Ref Val %REC

50.00

5.000

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

1100

WO#:

1805E62

01-Jun-18

Client:

Blagg Engineering

Project:

Surr: BFB

LEEPER GC 1

Sample ID	MB-38366	SampType:	MBLK
Client ID:	PBS	Batch ID:	38366

TestCode: EPA Method 8015D: Gasoline Range

15

316

RunNo: 51603 Batch ID: 38366 PBS

Prep Date: 5/29/2018 Analysis Date: 5/30/2018 SeqNo: 1682799 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Gasoline Range Organics (GRO) ND 5.0

930 Surr: BFB 1000 92.9 15 316

1000

Sample ID LCS-38366	SampTy	pe: LC	S	Tes	е					
Client ID: LCSS	Batch	ID: 38	366	R	RunNo: 5	1603				
Prep Date: 5/29/2018	Analysis Da	ate: 5/	30/2018	S	SeqNo: 1	682800	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			

106

ifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805E62

01-Jun-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38366	Sample ID MB-38366 SampType: MBLK					K TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch	n ID: 38	366	F	RunNo: 5	1603								
Prep Date: 5/29/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1	682840	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.025												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120							

Sample ID LCS-38366	SampT	ype: LC	S	Test	tCode: El					
Client ID: LCSS	Batch	1D: 38	366	R	RunNo: 5					
Prep Date: 5/29/2018	Analysis D	ate: 5/	30/2018	S	SeqNo: 1					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	77.3	128			
Toluene	0.96	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	96.0	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	98.9	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 6

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Clie	ent Name:	BLAGG		Work	Order Num	ber: 1805E62		RcptNo	1
				·			2 - 4		
Rec	eived By:	John C	aldwell	5/26/20	18 7:50:00	AM	amela	well	
Con	pleted By	. Anne T		5/29/20	18 7:23:09	AM	Ghn St.		·
Rev	iewed By:		AT 05/	29/18 ·					
	in of Cu								
1. Is	Chain of	Custody co	mplete?			Yes 🗸	No 🗆	Not Present	
2. H	low was th	e sample de	elivered?			Courier	* . *		
		·		1 . 1					
	<i>g In</i> ∕as an atte	empt made t	o cool the samp	les?		Yes 🗸	No 🗆	NA 🗆	
	rao an an	mpt made i	o occi ale samp	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ti wit	103			
4. W	ere all sar	nples receiv	red at a tempera	iture of >0° C t	to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
5. s	ample(s) i	n proper cor	ntainer(s)?	3		Yes 🗸	No 🗆		(6)
								* 8	
-			e for indicated to			Yes 🗹	No L		
_			A and ONG) pr	operly preserve	d?	Yes 🗸	No 🗔	🗖	
8. W	as preserv	ative added	to bottles?		3	Yes L	No 🗹	NA 🗀	
9. vo	OA vials ha	ave zero hea	adspace?			Yes \square	No 🗆	No VOA Vials 🗹	
10. W	ere any sa	ample conta	iners received b	roken?		Yes	No 🔽	# 05 22222	
						3.		# of preserved bottles checked	
			bottle labels?	· ,		Yes 🗹	No L	for pH:	>12 unless noted)
			chain of custody entified on Chai			Yes 🗸	No 🗆	Adjusted?	- 12 unless noted)
			were requested			Yes 🗸	No 🗆	_	
-			ble to be met?	*		Yes 🗸	No 🗆	Checked by:	
(If	no, notify	customer fo	r authorization.)			in the second			
Spec	ial Hand	lling (if a	pplicable)				e .	1 1 1	
15. W	as client r	otified of all	discrepancies	with this order?		Yes 🗌	No 🗌	NA 🗹	96 97 1 97
	Perso	n Notified:		***************************************	Date	Total Control of the	THE RESIDENCE OF THE PARTY OF T		
	By WI	nom:	The same of the sa	SCHOOLS AND SECURE AND	Via:	eMail	Phone Fax	☐ In Person	
	Regar	ding:				COLORO CATANONIO SIRVA DA MINIMANA	e creato da del E 1000 en 2000, salo um proportorio sociativa librariorio:	2000	i
	Client	Instructions		ONE COME TO SERVICE AND ADMINISTRATION OF THE SERVICE AND ADMINISTRATION O			An annual de Mainte de Mainte de La Mainte de La Mainte de La Caldada de La Mainte de La Caldada de La Caldada	THE COLUMN TWO IS NOT THE PROPERTY OF THE PROP	
16. A	dditional r	emarks:			21	81 81	···x		-
17. <u>c</u>	ooler Info						0.000.00		
:	Cooler N			Seal Intact	Seal No	Seal Date	Signed By		
	1	5.1	Good	Yes .				1 .	

C	Chain-of-Custody Record Client: BP AMERICA			Turn-Around Time: By FriDat Standard Krush JVNE 1					100						/TF						
Client:	BP A	MERIC	A	☐ Standard	Rush	JUNE 1	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com														
Mailing	Address	Engli	perly Inc	1 .	ER 6C S	L		 49	— 01 Н	awki								7100			
				Project #:						5-34							-410°				
Phone #	#: 509	-320	- 1183									А	naly	ysis	Req	uest	t				
email or	r Fax#:			Project Mana	ger:		=	l (Ślu	RO)			1		04)	,,						
QA/QC F			□ Level 4 (Full Validation)	SIE	VE Mosk	AL	₩	(Gas o	30 / M			SIMS)		,PO4,S	PCB's						
Accredi		□ Othe	er	Sampler:	EFF BUAL VYes	6 = No	E MAR	+ TPH	30 / DE	18.1)	04.1)	8270		J ₃ ,NO ₂	, / 8082		A)				or N)
	(Type)_			Sample Tem	delature 5.7	1-01-54		BE	(G	bd 4	2d 5	0 or	tals	N,	ides	8	9	Tr.			ک
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MABE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	CHURINE			Air Bubbles (Y or N)
5/25/18	1020	SOIL	NORTH Wall Z-PECB'	4 02×1	COOL	701	X		X									X			
1(1025	7(Z-PECB' Extended EAST Wall GRAB CB'	1(1(702	X		X									X			
					-																\top
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Date: 5/25/18	Time: 1740	Relinquish	ed by: Blegg		1 Wast	Date Time 5/25/18 1740	Re	mark	s: 7	Sill	Bi	5	te	re	M	ak	AL	1	PER	2016	
Date: 5/25/18	Time:	Reflijitquish	ed by:	Received by:	lull	Date Time 5 - 26 ir 6750	- 1	U Z	<i>>></i> !	70	neu	r. 4	-1-	<i>- (</i>)(JIC	K-	E .	LEE	TEK	JUI.	
, 11	necessary,	samples sub	mitted to Hall Environmental may be subo	contracted to other a	ccredited laboratorio	es. This serves as notice of	this poss	ibility.	Any s	ub-cont	tracted	data	will be	e clear	rty nota	ated o	n the a	nalytic	al repor	t	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 31, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: LEEPER GC 1 OrderNo.: 1805E61

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1805E61

Hall Environmental Analysis Laboratory, Inc. Date Reported: 5/31/2018

CLIENT: Blagg Engineering Client Sample ID: EXTENDED EAST Wall 6-pt (2'

Project: LEEPER GC 1 Collection Date: 5/25/2018 9:40:00 AM 1805E61-001 Matrix: SOIL Received Date: 5/26/2018 7:50:00 AM Lab ID:

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/29/2018 12:26:48 PM	38357
EPA METHOD 8015D MOD: GASOLINE F	RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	5/29/2018 10:16:39 AM	A51568
Surr: BFB	126	70-130	%Rec	1	5/29/2018 10:16:39 AM	A51568
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	3			Analyst	: Irm
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	5/29/2018 10:51:21 AM	38347
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/29/2018 10:51:21 AM	38347
Surr: DNOP	79.8	70-130	%Rec	1	5/29/2018 10:51:21 AM	38347
EPA METHOD 8260B: VOLATILES SHOP	RT LIST				Analyst	AG
Benzene	ND	0.020	mg/Kg	1	5/29/2018 10:16:39 AM	B51568
Toluene	ND	0.039	mg/Kg	1	5/29/2018 10:16:39 AM	B51568
Ethylbenzene	ND	0.039	mg/Kg	1	5/29/2018 10:16:39 AM	B51568
Xylenes, Total	ND	0.079	mg/Kg	1	5/29/2018 10:16:39 AM	B51568
Surr: 4-Bromofluorobenzene	128	70-130	%Rec	1	5/29/2018 10:16:39 AM	B51568
Surr: Toluene-d8	93.6	70-130	%Rec	1	5/29/2018 10:16:39 AM	B51568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits Page 1 of 8 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1805E61

Hall Environmental Analysis Laboratory, Inc. Date Reported: 5/31/2018

Client Sample ID: NORTH WALL #1 6-pt (2'-4') **CLIENT:** Blagg Engineering

Project: LEEPER GC 1 Collection Date: 5/25/2018 9:45:00 AM Received Date: 5/26/2018 7:50:00 AM Matrix: SOIL 1805E61-002 Lab ID:

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/29/2018 12:39:13 PM	38357
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	5/29/2018 10:39:46 AM	A51568
Surr: BFB	116	70-130	%Rec	1	5/29/2018 10:39:46 AM	A51568
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/29/2018 11:35:27 AM	38347
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/29/2018 11:35:27 AM	38347
Surr: DNOP	86.1	70-130	%Rec	1	5/29/2018 11:35:27 AM	38347
EPA METHOD 8260B: VOLATILES S	SHORT LIST				Analyst	AG
Benzene	ND	0.018	mg/Kg	1	5/29/2018 10:39:46 AM	B51568
Toluene	ND	0.036	mg/Kg	1	5/29/2018 10:39:46 AM	B51568
Ethylbenzene	ND	0.036	mg/Kg	1	5/29/2018 10:39:46 AM	B51568
Xylenes, Total	ND	0.072	mg/Kg	1	5/29/2018 10:39:46 AM	B51568
Surr: 4-Bromofluorobenzene	118	70-130	%Rec	1	5/29/2018 10:39:46 AM	B51568
Surr: Toluene-d8	91.1	70-130	%Rec	1	5/29/2018 10:39:46 AM	B51568

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 8 J
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1805E61

Date Reported: 5/31/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: NORTH WALL #2 6-pt (2'-4')

Project: LEEPER GC 1

Collection Date: 5/25/2018 9:49:00 AM

Lab ID: 1805E61-003

Received Date: 5/26/2018 7:50:00 AM

Analyses	Result	sult PQL Qual Units DF Date Analyzed				Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/29/2018 12:51:38 PM	38357
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	5/29/2018 11:02:57 AM	A51568
Surr: BFB	120	70-130	%Rec	1	5/29/2018 11:02:57 AM	A51568
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	Irm
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/29/2018 11:57:33 AM	38347
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/29/2018 11:57:33 AM	38347
Surr: DNOP	88.2	70-130	%Rec	1	5/29/2018 11:57:33 AM	38347
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst	AG
Benzene	ND	0.016	mg/Kg	1	5/29/2018 11:02:57 AM	B51568
Toluene	ND	0.032	mg/Kg	1	5/29/2018 11:02:57 AM	B51568
Ethylbenzene	ND	0.032	mg/Kg	1	5/29/2018 11:02:57 AM	B51568
Xylenes, Total	ND	0.063	mg/Kg	1	5/29/2018 11:02:57 AM	B51568
Surr: 4-Bromofluorobenzene	121	70-130	%Rec	1	5/29/2018 11:02:57 AM	B51568
Surr: Toluene-d8	82.6	70-130	%Rec	1	5/29/2018 11:02:57 AM	B51568

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805E61

31-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38357

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 38357

RunNo: 51572

Units: mg/Kg

Analyte

Prep Date:

5/29/2018

Analysis Date: 5/29/2018

SeqNo: 1682543 SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** Qual

Chloride

ND 1.5

Sample ID LCS-38357

5/29/2018

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID:

Prep Date:

LCSS

Result

Batch ID: 38357

PQL

RunNo: 51572

SeqNo: 1682544

Units: mg/Kg

Qual

Analyte

Analysis Date: 5/29/2018

PQL SPK value SPK Ref Val

15.00

%REC 93.5

HighLimit

RPDLimit

14

0

110

%RPD

Chloride

1.5

90

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Sample container temperature is out of limit as specified

Е Value above quantitation range

Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit Page 4 of 8

Hall Environmental Analysis Laboratory, Inc.

3.5

WO#:

1805E61

31-May-18

Client:

Surr: DNOP

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38347	SampType: MBLK	TestCode: E	PA Method 8015M/D: Di	esel Range Organics
Client ID: PBS	Batch ID: 38347	RunNo:	51574	
Prep Date: 5/29/2018	Analysis Date: 5/29/201	SeqNo:	1681217 Units: mg/F	(g
Analyte	Result PQL SPK	alue SPK Ref Val %REC	LowLimit HighLimit	%RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10			
Motor Oil Range Organics (MRO)	ND 50			
Surr: DNOP	7.3	0.00 73.1	70 130	
Sample ID LCS-38347	SampType: LCS	TestCode: E	PA Method 8015M/D: Di	esel Range Organics
Client ID: LCSS	Batch ID: 38347	RunNo:	51574	
Prep Date: 5/29/2018	Analysis Date: 5/29/201	SeqNo:	1681218 Units: mg/k	(g
Analyte	Result PQL SPK	alue SPK Ref Val %REC	LowLimit HighLimit	%RPD RPDLimit Qual
Diesel Range Organics (DRO)	52 10 5	0.00 0 104	70 130	

5.000

70.2

70

130

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805E61

31-May-18

Client:

Blagg Engineering

Project

LEEPER GC 1

Project: LEEPER	R GC 1									
Sample ID 100ng btex Ics	Samp	ype: LC	S4	Tes	tCode: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: BatchQC	Batc	n ID: B5	1568	F	unNo: 5	1568				
Prep Date:	Analysis [Date: 5/	29/2018	S	SeqNo: 1	681141	Units: mg/h	(g		
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.2	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			
Sample ID rb	Samp	ype: ME	BLK	Tes	Code: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: PBS	Batcl	n ID: B5	1568	R	unNo: 5	1568				
Prep Date:	Analysis [oate: 5/	29/2018	S	eqNo: 1	681147	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.57		0.5000		114	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			
Sample ID 1805e61-002ams	Sampl	уре: МЅ	64	Test	Code: El	PA Method	8260B: Vola	tiles Short	List	
Client ID: NORTH WALL #1	6- Batcl	n ID: B5	1568	R	unNo: 5	1568				
Prep Date:	Analysis D	ate: 5/	29/2018	S	eqNo: 1	681588	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.018	0.7163	0	91.3	80	120			
Toluene	0.67	0.036	0.7163	0	93.0	80	120			
Ethylbenzene	0.70	0.036	0.7163	0						
	0.70	0.030	0.7 103	U	97.4	82	121			
	2.0	0.036	2.149	0	97.4 94.9	80.2	120			
Xylenes, Total	2.0		2.149		94.9	80.2	120			
Xylenes, Total Surr: 4-Bromofluorobenzene	2.0 0.36 0.33		2.149 0.3582 0.3582	0	94.9 101 90.8	80.2 70 70	120 130	tiles Short	List	
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8	2.0 0.36 0.33 d SampT	0.072	2.149 0.3582 0.3582	0 Test	94.9 101 90.8	80.2 70 70 PA Method	120 130 130	tiles Short	List	
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams	2.0 0.36 0.33 d SampT	0.072 Type: MS n ID: B5	2.149 0.3582 0.3582 6D4 1568	0 Test	94.9 101 90.8 Code: EF	80.2 70 70 PA Method	120 130 130		List	
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams Client ID: NORTH WALL #1	2.0 0.36 0.33 d SampT	0.072 Type: MS n ID: B5	2.149 0.3582 0.3582 6D4 1568 29/2018	0 Test	94.9 101 90.8 Code: EF unNo: 5	80.2 70 70 PA Method	120 130 130 8260B: Volat		List RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams Client ID: NORTH WALL #1 Prep Date: Analyte	2.0 0.36 0.33 d SampT 6- Batcl Analysis E	0.072 Type: MS n ID: B5	2.149 0.3582 0.3582 6D4 1568 29/2018	0 Test R S	94.9 101 90.8 Code: EF unNo: 5	80.2 70 70 PA Method 1568 681589	120 130 130 8260B: Volat Units: mg/K	(g		Qual
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams Client ID: NORTH WALL #1 Prep Date: Analyte Benzene	2.0 0.36 0.33 d Sampī 6- Batcl Analysis E	0.072 Type: MS n ID: B5 Date: 5/	2.149 0.3582 0.3582 6D4 1568 29/2018 SPK value	0 Test R S SPK Ref Val	94.9 101 90.8 Code: EF unNo: 5 ⁻ eqNo: 10	80.2 70 70 PA Method 1568 681589 LowLimit	120 130 130 8260B: Volat Units: mg/F HighLimit	(g %RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams Client ID: NORTH WALL #1 Prep Date:	2.0 0.36 0.33 d Samp1 6- Batcl Analysis E Result 0.66	0.072 Type: MS n ID: B5 Date: 5// PQL 0.018	2.149 0.3582 0.3582 6D4 1568 29/2018 SPK value 0.7163	Test R S SPK Ref Val 0	94.9 101 90.8 Code: EF unNo: 5 eqNo: 10 %REC 91.9	80.2 70 70 PA Method 1568 681589 LowLimit 80	120 130 130 8260B: Volat Units: mg/K HighLimit	%RPD 0.656	RPDLimit 20	Qual
Xylenes, Total Surr: 4-Bromofluorobenzene Surr: Toluene-d8 Sample ID 1805e61-002ams Client ID: NORTH WALL #1 Prep Date: Analyte Benzene Toluene	2.0 0.36 0.33 d SampT l 6- Batcl Analysis D Result 0.66 0.66	0.072 Type: MS Tip: B5 Date: 5// PQL 0.018 0.036	2.149 0.3582 0.3582 6D4 1568 29/2018 SPK value 0.7163 0.7163	Test R S SPK Ref Val 0 0	94.9 101 90.8 Code: EF unNo: 5: eqNo: 11 %REC 91.9 92.7	80.2 70 70 PA Method 1568 681589 LowLimit 80 80	120 130 130 8260B: Volar Units: mg/k HighLimit 120 120	%RPD 0.656 0.389	RPDLimit 20	Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 6 of 8

Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805E61

31-May-18

Client:

Blagg Engineering

Project:

Prep Date:

LEEPER GC 1

Sample ID 1805e61-002amsd

SampType: MSD4

TestCode: EPA Method 8260B: Volatiles Short List

Client ID: NORTH WALL #1 6-

Batch ID: **B51568**

RunNo: 51568

Analysis Date: 5/29/2018

SeqNo: **1681589**

Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.38		0.3582		107	70	130	0	0	
Surr: Toluene-d8	0.34		0.3582		94.0	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805E61

31-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID 2.5ug gro lcs	SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range									
Client ID: LCSS	Batch ID: A51568 RunNo: 51568									
Prep Date:	Analysis D	nalysis Date: 5/29/2018 SeqNo: 1681138 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.9	70	130			
Surr: BFB	490		500.0		97.7	70	130			

Sample ID rb	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	n ID: A5	1568	R	RunNo: 5	1568				
Prep Date:	Analysis D	ate: 5/	29/2018	S	SeqNo: 1	681139	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	560		500.0		112	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 8 of 8

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG	Work Order Numb	oer: 1805E	31	RcptNo	: 1
Received By: John Caldy	well 5/26/2018 7:50:00 A	AM .	ahred	luce	
Completed By: Anne Thor		ÁM	GhnCd.	Y	
Reviewed By: J.S.	US/29/17 -05/29/19				
Chain of Custody				i de la light de la companya de la c La companya de la co	
1. Is Chain of Custody comple	ete?	Yes 🗸	No 🗆	Not Present	
2. How was the sample delive	red?	Courier			
Log In		*- : .			
3. Was an attempt made to co	ool the samples?	Yes 🗸	No 🗆	NA 🗆	an an in
			,		
4. Were all samples received a	at a temperature of >0° C to 6.0°C	Yes 🗸	No □	NA 🗆	
5. Sample(s) in proper contain	er(s)?	Yes 🗸	No 🗆		(F. 1987)
6. Sufficient sample volume for	r indicated test(s)?	Yes 🗸	No 🗌		
7. Are samples (except VOA a	nd ONG) properly preserved?	Yes 🗹	No 🗌		5
8. Was preservative added to b	pottles?	Yes 🗌	No 🗸	NA 🗆	
9. VOA vials have zero headsp	ace?	Yes	No 🗆	No VOA Vials	
10. Were any sample container	s received broken?	Yes 🗆	No 🗸		
	,			# of preserved bottles checked	
 Does paperwork match bottle (Note discrepancies on chair 		Yes 🗹	No 🗀	for pH:	>12 unless noted)
12. Are matrices correctly identif		Yes 🗸	No 🗆	Adjusted?	
13. Is it clear what analyses were		Yes 🗸	No 🗌		
14. Were all holding times able t		Yes 🗸	No 🗆	Checked by:	
(If no, notify customer for au	thorization.)) (a)		
Special Handling (if appl	icable)	*	* [4		
15. Was client notified of all disc	crepancies with this order?	Yes _	No 🗆	NA. 🗹	
Person Notified:	Date	dominion control of	CONTROL OF THE PROPERTY OF THE		
By Whom:	Via:	eMail	Phone Fax	☐ In Person	
Regarding:					
Client Instructions:					
16. Additional remarks:		*			
17. Cooler Information					
Cooler No Temp ºC	Condition Seal Intact Seal No	Seal Date	Signed By		
1 5.1 0	Good Yes	ner hann van Park Nes For van samer ner den van van van	į.		

C	hain-	of-Cu	stody Record	Turn-Around	Time:					ш			En	11/	TD		B.I.B.	Æ	NT	- 4 1	
Client:	BP/	AMERI	cA	□ Standard	Rush	SAME DAY													AT (
	BIAL	6 Fr	imeery Ivc	Project Name):							.halle								,,,	
Mailing	Address	O	The state of the s	LEZ	EPER 6	CL		400	11 H	awkir								100			
				Project #:																	
Phone 3	#: 50	5-3	20-1183				Tel. 505-345-3975 Fax 505-345-4107 Analysis Request														
email o				Project Manager:				(\$\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\)(\										T			
QA/QC I	Package:			STEVE MOSKAL			3021	IS OF	/ DRO / MRO)			6		4,SC	PCB's						
Stan			☐ Level 4 (Full Validation)									SIMS)	.	8	2 PC						
Accredi		□ Othe	er	Sampler: <i>JEFF BLAGG</i> Pinice: 12 Page No.					+ MTBE + TMB's (8021) + MTBE + TPH (Gas only) t015B (GRO / DRO / MRO) Method 418.1) Method 504.1) Method 504.1) (8310 or 8270 SIMS) 8 (F.CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) >Pesticides / 8082 PCB's (VOA) Semi-VOA)										or N)		
□ EDD	(Type)_			Sample Tem	perature: 5	4-04-50	H	BE	9	0d 4	2 pc	0 0	stals	N,	ides	8	9	N			2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	LINEALME LOYOS G. L.	BTEX + ME	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE			Air Bubbles (Y or N)
15/18	0940	SOIL	EXTENDED EAST WELL	4 07×1	COOL	701	χ		X						-	~	-	χ		1	+
1	0945	1	NORTH WALL #1	1	ĺ	702	1		1						-			1		\top	
	0949	1	6-p= (2-4") NORM Wall #2 6-p= (2-4")			-703	1		1												\top
		9																	-		
										_	_		_							\perp	
										\perp	<u> </u>										
Date: 25/18	Time:	Relinquish	1 Blaza	Received by:	Walls	5/25/N 1740	Rer	narks	s: E	ento	ot i	P 5	Teve	in	105 f	KAL					İ
Date:	Time: \810	Relinquish	ed by:	Received by:	Mull	Date Time 5-7/04/1 2750		WBS	E	leve	1+:	4	L-C	90.	1c	R-	E:L	LEE	PER	9 <u>91</u>	
	f necessary,	samples sub	mitted to Hall Énvironmental may be subc	contracted to other a	ccredited laboratorie	00018	possi	bility.	Any su	ib-contr	acted	data w	vill be o	clearly	y nota	ted or	the a	nalytic	al repo	rt.	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 29, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199

FAX (505) 632-3903

RE: LEEPER GC 1

OrderNo.: 1805D12

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/24/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1805D12

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: SE Wall 5-pt

Project: LEEPER GC 1

Collection Date: 5/23/2018 11:30:00 AM

Lab ID: 1805D12-001

Matrix: SOIL

Received Date: 5/24/2018 7:15:00 AM

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/24/2018 9:22:40 AM	38305
EPA METHOD 8015D MOD: GASOLINE I	RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	5/24/2018 11:12:07 AM	A51509
Surr: BFB	119	70-130	%Rec	1	5/24/2018 11:12:07 AM	A51509
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	i			Analyst:	Irm
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/24/2018 12:26:12 PM	38303
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/24/2018 12:26:12 PM	38303
Surr: DNOP	130	70-130	S %Rec	1	5/24/2018 12:26:12 PM	38303
EPA METHOD 8260B: VOLATILES SHOP	RT LIST				Analyst:	AG
Benzene	ND	0.014	mg/Kg	1	5/24/2018 11:12:07 AM	C51509
Toluene	ND	0.028	mg/Kg	1	5/24/2018 11:12:07 AM	C51509
Ethylbenzene	ND	0.028	mg/Kg	1	5/24/2018 11:12:07 AM	C51509
Xylenes, Total	ND	0.057	mg/Kg	1	5/24/2018 11:12:07 AM	C51509
Surr: 4-Bromofluorobenzene	121	70-130	%Rec	1	5/24/2018 11:12:07 AM	C51509
Surr: Toluene-d8	89.1	70-130	%Rec	1	5/24/2018 11:12:07 AM	C51509

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 9 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1805D12

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: South Wall #3 (5-pt)

Project: LEEPER GC 1

Collection Date: 5/23/2018 11:37:00 AM

Lab ID: 1805D12-002

Matrix: SOIL

Received Date: 5/24/2018 7:15:00 AM

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/24/2018 9:35:05 AM	38305
EPA METHOD 8015D MOD: GASOLINE I	RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	2.8	mg/Kg	1	5/24/2018 11:35:13 AM	A51509
Surr: BFB	117	70-130	%Rec	1	5/24/2018 11:35:13 AM	A51509
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	lrm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/24/2018 1:32:19 PM	38303
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/24/2018 1:32:19 PM	38303
Surr: DNOP	136	70-130	S %Rec	1	5/24/2018 1:32:19 PM	38303
EPA METHOD 8260B: VOLATILES SHOP	RT LIST				Analyst	AG
Benzene	ND	0.014	mg/Kg	1	5/24/2018 11:35:13 AM	C51509
Toluene	ND	0.028	mg/Kg	1	5/24/2018 11:35:13 AM	C51509
Ethylbenzene	ND	0.028	mg/Kg	1	5/24/2018 11:35:13 AM	C51509
Xylenes, Total	ND	0.057	mg/Kg	1	5/24/2018 11:35:13 AM	C51509
Surr: 4-Bromofluorobenzene	118	70-130	%Rec	1	5/24/2018 11:35:13 AM	C51509
Surr: Toluene-d8	91.3	70-130	%Rec	1	5/24/2018 11:35:13 AM	C51509

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 9 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1805D12

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: East Wall 6-pt

Project: LEEPER GC 1

Collection Date: 5/23/2018 2:34:00 PM

Lab ID: 1805D12-003

Matrix: SOIL Received Date

Received Date: 5/24/2018 7:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/24/2018 9:47:29 AM	38305
EPA METHOD 8015D MOD: GASOLINE	RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	2.9	mg/Kg	1	5/24/2018 11:58:16 AM	A51509
Surr: BFB	120	70-130	%Rec	1	5/24/2018 11:58:16 AM	A51509
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	ì			Analyst	TOM
Diesel Range Organics (DRO)	37	10	mg/Kg	1	5/25/2018 12:10:54 PM	38324
Motor Oil Range Organics (MRO)	61	50	mg/Kg	1	5/25/2018 12:10:54 PM	38324
Surr: DNOP	105	70-130	%Rec	1	5/25/2018 12:10:54 PM	38324
EPA METHOD 8260B: VOLATILES SHO	RT LIST				Analyst	AG
Benzene	ND	0.014	mg/Kg	1	5/24/2018 11:58:16 AM	C51509
Toluene	ND	0.029	mg/Kg	1	5/24/2018 11:58:16 AM	C51509
Ethylbenzene	ND	0.029	mg/Kg	1	5/24/2018 11:58:16 AM	C51509
Xylenes, Total	ND	0.058	mg/Kg	1	5/24/2018 11:58:16 AM	C51509
Surr: 4-Bromofluorobenzene	123	70-130	%Rec	1	5/24/2018 11:58:16 AM	C51509
Surr: Toluene-d8	92.9	70-130	%Rec	1	5/24/2018 11:58:16 AM	C51509

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805D12

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38305

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**

Batch ID: 38305

PQL

1.5

RunNo: 51497

Prep Date:

5/24/2018

SeqNo: 1679654

Units: mg/Kg

RPDLimit

Qual

Analyte Chloride

Analysis Date: 5/24/2018

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

%RPD

Sample ID LCS-38305 Client ID: LCSS

SampType: LCS Batch ID: 38305

PQL

1.5

RunNo: 51497

Prep Date: 5/24/2018

Units: mg/Kg

Analysis Date: 5/24/2018

SPK value SPK Ref Val

SeqNo: 1679655 %REC LowLimit

TestCode: EPA Method 300.0: Anions

HighLimit

RPDLimit

Qual

Analyte

Result

15.00

96.3

90

110

Chloride

14

Result

ND

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 4 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805D12

29-May-18

Blagg Engineering Client: LEEPER GC 1 Project: Sample ID MB-38303 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 38303 RunNo: 51500 Prep Date: 5/24/2018 Analysis Date: 5/24/2018 SeqNo: 1678034 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Result PQL LowLimit Analyte Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 10.00 120 70 130 12 TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID LCS-38303 SampType: LCS Client ID: LCSS Batch ID: 38303 RunNo: 51500 Analysis Date: 5/24/2018 SeqNo: 1678035 Units: mg/Kg Prep Date: 5/24/2018 SPK value SPK Ref Val %REC %RPD **RPDLimit** PQL HighLimit Qual Analyte Result LowLimit Diesel Range Organics (DRO) 51 10 50.00 0 103 130 70 5.000 Surr: DNOP 6.1 123 70 130 Sample ID MB-38293 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics **PBS** Batch ID: 38293 RunNo: 51500 Client ID: Prep Date: 5/23/2018 Analysis Date: 5/24/2018 SeqNo: 1678871 Units: %Rec SPK value SPK Ref Val %REC %RPD **RPDLimit** Result HighLimit Qual Analyte LowLimit Surr: DNOP 10.00 130 SampType: LCS Sample ID LCS-38293 TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 38293 RunNo: 51500 Analysis Date: 5/24/2018 SeqNo: 1678940 Units: %Rec Prep Date: 5/23/2018 %REC %RPD **RPDLimit** Result SPK value SPK Ref Val LowLimit HighLimit Qual Analyte 6.0 5.000 70 130 Surr: DNOP 119 Sample ID LCS-38324 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 51527 Client ID: LCSS Batch ID: 38324 Prep Date: 5/25/2018 Analysis Date: 5/25/2018 SeqNo: 1679342 Units: mg/Kg %REC %RPD Analyte Result POI SPK value SPK Ref Val LowLimit HighLimit RPDI imit Qual Diesel Range Organics (DRO) 53 10 50.00 0 106 70 130 Surr: DNOP 5.2 5.000 105 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID MB-38324 SampType: MBLK Client ID: **PBS** Batch ID: 38324 RunNo: 51527 Prep Date: 5/25/2018 Analysis Date: 5/25/2018 SeqNo: 1679343 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result POI

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Diesel Range Organics (DRO)

H Holding times for preparation or analysis exceeded

ND

10

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805D12

29-May-18

Client:

Blagg Engineering

Project:

Analyte

Surr: DNOP

LEEPER GC 1

Sample ID MB-38324

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS

Batch ID: 38324

RunNo: 51527

SPK value SPK Ref Val %REC LowLimit

Prep Date: 5/25/2018 Analysis Date: 5/25/2018

PQL

50

SeqNo: 1679343

Units: mg/Kg

%RPD

HighLimit

RPDLimit

Qual

Motor Oil Range Organics (MRO)

ND 11

Result

10.00

109

130

70

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Е Value above quantitation range

Analyte detected below quantitation limits

Page 6 of 9

P Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805D12 29-May-18

Client: Blagg Engineering
Project: LEEPER GC 1

Sample ID 100ng btex Ics	SampT	ype: LC	S4	Tes	tCode: E	PA Method	8260B: Vola	tiles Shor	t List	
Client ID: BatchQC	Batch	n ID: C5	1509	F	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018		SeqNo: 1	678164	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.6	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			
Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List	-
Client ID: PBS	Batch	n ID: C5	1509	F	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018	5	SeqNo: 1	678170	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			
Sample ID 1805d12-002an	ns SampT	ype: MS	64	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List	
Client ID: South Wall #3	(5-pt) Batch	n ID: C5	1509	F	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018	5	SeqNo: 1	678723	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.59	0.014	0.5653	0	104	80	120			
Toluene	0.58	0.028	0.5653	0	103	80	120			
Ethylbenzene	0.59	0.028	0.5653	0	104	82	121			
Xylenes, Total	1.7	0.057	1.696	0.01067	96.7	80.2	120			
Surr: 4-Bromofluorobenzene	0.29		0.2826		101	70	130			
Surr: Toluene-d8	0.28		0.2826		99.4	70	130			
Sample ID 1805D12-002A	∥SD SampT	ype: MS	SD4	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List	
Client ID: South Wall #3	(5-pt) Batch	n ID: C5	1509	F	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018	5	SeqNo: 1	678724	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.54	0.014	0.5653	0	95.3	80	120			
Toluene	0.54	0.028	0.5653	0	96.3	80	120			

Qualifiers:

Ethylbenzene

Xylenes, Total

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

0.56

1.6

0.028

0.057

0.5653

1.696

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

82

80.2

121

120

E Value above quantitation range

98.3

92.0

J Analyte detected below quantitation limits

Page 7 of 9

P Sample pH Not In Range

0

0.01067

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

0.27

WO#:

1805D12

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID 1805D12-002AMSD

SampType: MSD4

TestCode: EPA Method 8260B: Volatiles Short List

70

Client ID: South Wall #3 (5-pt)

Batch ID: C51509

RunNo: 51509

Prep Date:

Surr: Toluene-d8

Analysis Date: 5/24/2018

SeqNo: 1678724

96.0

Units: mg/Kg

130

	,									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.29		0.2826		101	70	130			

0.2826

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 8 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805D12**

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID 2.5ug gro Ics	SampT	ype: LC	S	Test	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	1D: A5	1509	R	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018	S	SeqNo: 1	678138	Units: mg/k	⟨g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.9	70	130			
Surr: BEB	480		500.0		95.0	70	130			

Sample ID rb	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	ID: A5	1509	R	RunNo: 5	1509				
Prep Date:	Analysis D	ate: 5/	24/2018	S	SeqNo: 1	678139	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr BEB	540		500.0		108	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 9 of 9

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG		Work	Order Nur	nber: 1805D12			RcptNo:	1	_
									8	
Received By:	Isaiah Or	tiz	5/24/20	18 7:15:00	AM ·	IG	1			
Completed By:	Anne Tho	orne	5/24/20	18 7:51:32	AM	1	1	*		
Reviewed By:	505/2	410				Cine,	Sim			
Labeled.	1 -	Ö							Y., ***	
Chain of Cus	tody				8. H		5.4.			
1. Is Chain of Co	ustody comp	lete?	*	2 (0)	Yes 🗸	No	☐ Not Pre	sent		
2. How was the	sample deliv	rered?			Courier		a t			
l on Im		E	* s							
Log In 3. Was an attern	int made to	coal the samn	les?		Yes 🗸	No [NA 🗌		
o. was an atten	ipt made to t	soon the samp	163 !		163					
4. Were all samp	les received	l at a tempera	ture of >0° C	to 6.0°C	Yes 🗸	No [NA 🗆		
5. Sample(s) in p	proper conta	iner(s)?			Yes 🗹	No [
							7			
Sufficient sam			5 5		Yes 🗹	No L				
7. Are samples (perly preserve	ed?	Yes 🗹	No L	_			
8. Was preservat	tive added to	bottles?			Yes	No 🖪		NA 🗌		
9. VOA vials have	e zero heads	space?			Yes	No [No VOA V	′ials 🗸		
10. Were any san	nple containe	ers received b	roken?		Yes	No 5	# of prese	niod	-0 /	1
						_	_ bottles che		50/	
11. Does paperwo					Yes 🗸	No	for pH:	1/2 05	>12 unless noted)	
(Note discrepa					Yes 🗸	No [Adiu	usted?	unless noted)	
12. Are matrices c 13. Is it clear what					Yes ✓	No [/-	5	
14. Were all holding			r		Yes 🗹	No [Chec	ked by:	MC.	
(If no, notify cu					162	140				
Special Handli	na (if ann	dicable)			*		-			
15. Was client not			vith this order?	> ,	Yes	No [NA 🗹		
Person	Notified:			Date		·	on near			
By Who	3	The Control of the Co	eathardhas mheiridhead chuis ac an ac an ac	Via:	eMail	Phone F	ax In Perso	on i		
Regardi	3		2 - Million Decorption]		replantations.		
1	structions:	THE CASE OF STREET, THE STREET	ANNES TATALITATA PARA SERIES ANNO ANTONIO (S. 192		TAX AND AND AND A THE CONTRACT OF THE CONTRACT		COPE, DE LA COLLEGA DE LA COLL	endinandeneranists.		
16. Additional ren	narks:			7						
17. Cooler Inform	mation									
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	,			
1	0.1	Good	Yes			2.5.100 0)			AMA.	
2	0.8	Good	Yes							

C	hain-	of-Cu	stody Record	Turn-Around	Time:				2		_						_					
Client:	BP A	Merica		□ Standard	⊠Rush	SAME I	AY		F 7.2											NT		
	R	F) .		Project Name	:		-												KA	LIC	JK	¥ .
Mailing	Address	Engine:	eri	LEEP	ER 6C 1			*	404					lenvi								
***************************************				Project #:							awki											
Dhone	u. 50	25 - 3	20-1183						Te	1. 50	5-34	5-39		naly	-		345-		7	7 1		10.99
email o		15-3	20-1103	Project Mana	ner:				2	6				IIaiy		req	uest					
	Package:			1	-			(8021)	only)	MRO)					08	3,2						
j x Stan	-		☐ Level 4 (Full Validation)	STEVE	Moskac			3 (80	TPH (Gas	DRO/			SIMS)		O ₄	PCB'						
Accredi				Sampler: J	EFF BLAG	16		HMB's	PH (/ DR	=	=			102,	8082						
□ NEL		□ Othe	er	On lee	.⊵ ĕ Yes	⊒ No			+	(GRO	138	90.	82	10	03,7	8/8		(A)				o n
	(Type)_			Sample Ferri	rerature: - 🗷	(0.8		MEBE	BE	3(G	po 4	po	0 0	etals	Ž	cide	F	N-i	W			≥ (
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		No .	+	X + MTBE	8015B	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)	CHORIDE			Air Bubbles (Y or N)
				Type and #	Турс	/8 Œ	70	ВТЕХ	ВТЕХ	TPH	TH		PAH	S	Anio	808	826(827(0			Air E
1/23/18	1130	SOIL	SE Wall 5-pt	4 02×1	COOL	,	201	X		X									X	\top		+
1	1137	1	South Wall#3 (5-0t)		1		C12	X		X		\neg							X			+
	1434		SE Wall 5-pt South Wall#3 (5-pt) EAST Wall 6-pt			_	203	X		X									X			+
	1/31		Dor will of	,							\dashv	1							\uparrow			+
											\dashv	\dashv	\neg							\dashv	+	+
												\dashv	\neg							_		+
											_				-		-	-		+	+	+
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-												\dashv	\dashv	-						\dashv	+	+
											\dashv	\dashv	\dashv		-			-		+	+	+
					2.4							-	\dashv						\vdash		+	+
Date:	Time:	Relinquish	ed by:	Received by:		Date	Time	Ren	narks	s: 7	BILL	BF	>									
123/18	1628	1	1 Bless	Montre	Infall.	5/23/18	11.75			(CON	totel	-1 2									
Date:	Time:	Relinquish	ed by:	Received by:	Cour	ing Date	Time		WB.	SE	EM	EUT	: L	1-0	901	CR	-E	LE	EPE	ER OC	21	
5/23/18	1840	Min	tra Dayon	J. Q	= 3	[24/18	715															
	fne v.	samples sub	mitted to Hall Environmental may be subc	ontracted to other ac	credited laboratorie	es. This serves a	s notice of this	DC	ility.	Anv su	ib-cont	tracted	data	will be	1	v nota	ted on	the a	nalytic	al repor	t	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1805C14

May 29, 2018

Jeff Blagg

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199

FAX (505) 632-3903

RE: LEEPER GC 1

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/23/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1805C14

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: South Wall 1

Project: LEEPER GC 1

Collection Date: 5/22/2018 10:25:00 AM

Lab ID: 1805C14-001

Matrix: SOIL Received Date: 5/23/2018 7:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analys	MRA
Chloride	ND	30		mg/Kg	20	5/23/2018 12:03:08 PM	1 38280
EPA METHOD 8015D MOD: GASOL	NE RANGE					Analys	: AG
Gasoline Range Organics (GRO)	17	3.3		mg/Kg	1	5/23/2018 12:03:19 PM	A51464
Surr: BFB	117	70-130		%Rec	1	5/23/2018 12:03:19 PM	A51464
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS					Analys	:: Irm
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/23/2018 11:37:58 AM	38274
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/23/2018 11:37:58 AM	38274
Surr: DNOP	94.3	70-130		%Rec	1	5/23/2018 11:37:58 AM	38274
EPA METHOD 8260B: VOLATILES S	HORT LIST					Analys	: AG
Benzene	ND	0.016		mg/Kg	1	5/23/2018 12:03:19 PM	B51464
Toluene	ND	0.033		mg/Kg	1	5/23/2018 12:03:19 PM	B51464
Ethylbenzene	ND	0.033		mg/Kg	1	5/23/2018 12:03:19 PM	B51464
Xylenes, Total	ND	0.065		mg/Kg	1	5/23/2018 12:03:19 PM	B51464
Surr: 4-Bromofluorobenzene	133	70-130	S	%Rec	1	5/23/2018 12:03:19 PM	B51464
Surr: Toluene-d8	90.1	70-130		%Rec	1	5/23/2018 12:03:19 PM	B51464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 6 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
 - Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1805C14

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: South Wall 2

Project: LEEPER GC 1

Collection Date: 5/22/2018 1:50:00 PM

Lab ID: 1805C14-002

Received Date: 5/23/2018 7:00:00 AM Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/23/2018 12:15:32 PM	38280
EPA METHOD 8015D MOD: GASOLINE F	RANGE				Analyst:	AG
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	5/23/2018 12:26:27 PM	A51464
Surr: BFB	124	70-130	%Rec	1	5/23/2018 12:26:27 PM	A51464
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	5			Analyst:	Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/23/2018 12:00:06 PM	38274
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/23/2018 12:00:06 PM	38274
Surr: DNOP	92.8	70-130	%Rec	1	5/23/2018 12:00:06 PM	38274
EPA METHOD 8260B: VOLATILES SHOP	RT LIST				Analyst:	AG
Benzene	ND	0.017	mg/Kg	1	5/23/2018 12:26:27 PM	B51464
Toluene	ND	0.035	mg/Kg	1	5/23/2018 12:26:27 PM	B51464
Ethylbenzene	ND	0.035	mg/Kg	1	5/23/2018 12:26:27 PM	B51464
Xylenes, Total	ND	0.069	mg/Kg	1	5/23/2018 12:26:27 PM	B51464
Surr: 4-Bromofluorobenzene	135	70-130	S %Rec	1	5/23/2018 12:26:27 PM	B51464
Surr: Toluene-d8	89.8	70-130	%Rec	1	5/23/2018 12:26:27 PM	B51464

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J
- Analyte detected below quantitation limits Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805C14

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38280

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 38280

PQL

RunNo: 51462

Prep Date: 5/23/2018 Analysis Date: 5/23/2018

SeqNo: 1677388

Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD Qual

Analyte Chloride

ND 1.5

Sample ID LCS-38280 LCSS

5/23/2018

SampType: Ics

Batch ID: 38280

Analysis Date: 5/23/2018

TestCode: EPA Method 300.0: Anions

LowLimit

RunNo: 51462 SeqNo: 1677389

Units: mg/Kg HighLimit

RPDLimit

RPDLimit

Qual

Analyte

PQL 1.5

15.00

%RPD

Chloride

Client ID:

Prep Date:

Result 14

Result

SPK value SPK Ref Val %REC

92.8

90

110

Qualifiers:

Value exceeds Maximum Contaminant Level

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 3 of 6

P Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805C14

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Project: LEEPE	N GC I									
Sample ID MB-38274	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 38	274	F	RunNo: 5	1459				
Prep Date: 5/23/2018	Analysis D	ate: 5/	23/2018	S	SeqNo: 1	675893	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.1		10.00		80.6	70	130			
Sample ID LCS-38274	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 38	274	F	RunNo: 5	1459				
Prep Date: 5/23/2018	Analysis D	ate: 5/	23/2018	8	SeqNo: 1	675894	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	70	130			
Surr: DNOP	3.7		5.000		73.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805C14

29-May-18

Client: Project:

Blagg Engineering

LEEPER GC 1

Sample ID 100ng btex Ics	SampT	ype: LC	S4	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: BatchQC	Batch	n ID: B5	1464	F	RunNo: 5	1464				
Prep Date:	Analysis D	ate: 5/	23/2018	8	SeqNo: 1	676027	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.3	80	120			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.8	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			
Sample ID rb	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: PBS	Ratch	1D: B5	4404	_						
	Datti	IID. B5	1464	F	RunNo: 5	1464				
Prep Date:	Analysis D				RunNo: 5 BeqNo: 1		Units: mg/K	g		
Prep Date: Analyte			23/2018				Units: mg/K	g %RPD	RPDLimit	Qual
	Analysis D	ate: 5/	23/2018	S	SeqNo: 1	676034		•	RPDLimit	Qual
Analyte	Analysis D	PQL	23/2018	S	SeqNo: 1	676034		•	RPDLimit	Qual
Analyte Benzene	Analysis D Result ND	PQL 0.025	23/2018	S	SeqNo: 1	676034		•	RPDLimit	Qual
Analyte Benzene Toluene	Analysis D Result ND ND	PQL 0.025 0.050	23/2018	S	SeqNo: 1	676034		•	RPDLimit	Qual
Analyte Benzene Toluene Ethylbenzene	Analysis D Result ND ND ND	PQL 0.025 0.050 0.050	23/2018	S	SeqNo: 1	676034		•	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805C14

29-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID 2.5ug gro Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	ID: A5	1464	F	RunNo: 5	1464				
Prep Date:	Analysis D	ate: 5/	23/2018	S	SeqNo: 1	676019	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	70	130			
Surr: BFB	480		500.0		96.0	70	130			

Sample ID rb	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8015D M od:	Gasoline	Range	
Client ID: PBS	Batch	ID: A5	1464	R	RunNo: 5	1464				
Prep Date:	Analysis D	ate: 5/	23/2018	S	SeqNo: 1	676020	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	580		500.0		117	70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 6

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG	Work	Order Number: 18	805C14		RcptNo:	1
Received By: Anne Tho	rne 5/23/20 ⁻	18 7:00:00 AM		anne Ha	_	
Completed By: Anne Tho	,	18 7:14:28 AM		ame In		
Reviewed By:	5 (73	18		O(ma)		*
Reviewed By: To	05/23/18 AT			*		
Chain of Custody						
1. Is Chain of Custody comp	lete?	Y	es 🗸	No 🗌	Not Present	
2. How was the sample deliv	ered?	C	ourier			
Log In						
3. Was an attempt made to c	cool the samples?	Ye	es 🗸	No 🗆	NA 🗆	
4. Were all samples received	at a temperature of >0° C t	o 6.0°C Y€	es 🗸	No 🗌	NA 🗆	
5. Sample(s) in proper contai	ner(s)?	Ye	es 🗸	No 🗆		
6. Sufficient sample volume for	or indicated test(s)?	Ye	s 🗸	No 🗌		
7. Are samples (except VOA	and ONG) properly preserve	d? Ye	s 🗸	No 🗌		
8. Was preservative added to	bottles?	Ye	s 🗌	No 🗹	NA	
9. VOA vials have zero heads	snace?	Ye	. П	No 🗆	No VOA Vials	
10. Were any sample containe			es \square	No 🗹		
10.			-		# of preserved bottles checked	
11. Does paperwork match bot		Ye	s 🗸	No 🗆	for pH:	
(Note discrepancies on cha				No 🗆	(<2 or Adjusted?	>12 unless noted)
Are matrices correctly identify its its clear what analyses we		Ye Ye	s 🗹 s 🗸	No 🗌	,	
14. Were all holding times able			s 🗹	No 🗆	Checked by:	
(If no, notify customer for a				[
Special Handling (if app	licable)					
15. Was client notified of all di	-	Ye	es 🗌	No 🗌	NA 🗹	
Person Notified:	THE ASSAULT AND ARREST AND ASSAULT ASS	Date	THE RESERVE OF THE PARTY OF THE	in the contract of the contrac		
By Whom:		Via: ☐ e	Mail Pho	ne 🗌 Fax	☐ In Person	
Regarding:	AND THE RESIDENCE THE TEXT OF	CAPPARATE THE NAME OF THE PARAMETER AND THE PARA	TATABALA AARAMAA			
Client Instructions:						
16. Additional remarks:						
17. Cooler Information						
Cooler No Temp °C	Condition Seal Intact	Seal No Seal	Date Sig	gned By		
1 1.0	Good Yes					ψ.

C	hain-	of-Cu	stody Record	Turn-Around	Time:	3	HALL ENVIRONMENTA				4									
Client:	BP A	MERICA		☐ Standard	Rush	SAME DAY												NT		
	BLAGE	ENGU	NEERWO IIK.	1	PER GC	1				V	ww.l	allen	viron	ment	tal.co	om				
Mailing	Address	:			er GC			490	01 H	awkir	s NE	- Al	buqu	erqu	e, Ni	M 87	109			
				Project #:				Te	l. 50	5-345	-397		Fax				7			
		5-32	0-1183				100					Ana	ysis	Req	uest					110
email or				Project Mana	ger:		£	yluc	8				040	S					-	
Stan			□ Level 4 (Full Validation)		BLAGG		HWB's (8021)	TPH (Gas only)	DRO / MRO)		9	CIMIC	,PO ₄ ,S	2 PCB'						
Accredi		□ Othe	er	Sampler: Z	BA66 V(Yes	□ Ne	TIMB	+ TPH	-	18.1)	04.1)	0770	J ₃ ,NO ₂	, / 808		(A				or N
□ EDD	(Type)_			Sample Temi			#	BE	9	4 pc	2 pd 2	o or	N.	ides	(A)	0>-	DE			2
Date	Time	Matrix	Sample Request ID	Container Type and # Module	Preservative Type	HEAL NO	BTEX + MITBE	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE			Air Bubbles (Y or N)
12/18	1025	SOIL	SOUTH WALL #1	402×1	COOL	-001	X		X								X			
Y	1350	u	SOUTH WALL #2	ı,	1(702	X		X								X		\bot	
			,								\perp	_	_					_	\bot	_
										_	+	_	-				\square	_	+	_
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Deter	T:	Delineviah		Received by		Data Time	Davi				1									
Date: Time: Relinquished by: 12/18 1444 J.J. Blagg		Received by: Date Time 5/22/18 1444			Remarks: BILL BP CONTINET: STEVE MOSKAL WBS EVENENT: L1-OOCR-E:LEEPEROO1															
Date: Time: Relinquished by:		Received by: Date Time 05/23//8				ORS	EL	Ene	17:	L1-	00	CR.	-E:	LEE	EPER	001	-			
22/18	1820	MANN	MINE WILLES	Ch 7 0700																



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 25, 2018

Steve Moskal Blagg Engineering P. O. Box 87

Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: LEEPER GC 1 OrderNo.: 1805B32

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/22/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1805B32

Date Reported: 5/25/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Project: LEEPER GC 1

Lab ID:

1805B32-001

Client Sample ID: SVE AREA 3-PT @ 6'

Collection Date: 5/21/2018 11:13:00 AM Received Date: 5/22/2018 6:45:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	5/22/2018 12:19:01 PM	1 38253
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/22/2018 11:38:48 AM	1 38242
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/22/2018 11:38:48 AM	1 38242
Surr: DNOP	98.0	70-130	%Rec	1	5/22/2018 11:38:48 AM	1 38242
EPA METHOD 8015D: GASOLINE RAN	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.0	mg/Kg	1	5/22/2018 11:31:37 AM	1 38240
Surr: BFB	89.7	15-316	%Rec	1	5/22/2018 11:31:37 AM	1 38240
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.015	mg/Kg	1	5/22/2018 11:31:37 AM	1 38240
Toluene	ND	0.030	mg/Kg	1	5/22/2018 11:31:37 AM	1 38240
Ethylbenzene	ND	0.030	mg/Kg	1	5/22/2018 11:31:37 AM	1 38240
Xylenes, Total	ND	0.060	mg/Kg	1	5/22/2018 11:31:37 AM	1 38240
Surr: 4-Bromofluorobenzene	97.9	80-120	%Rec	1	5/22/2018 11:31:37 AM	1 38240

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 5 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805B32

25-May-18

Client:

Blagg Engineering

Project:

LEEPER GC 1

Sample ID MB-38253

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 38253

PQL

RunNo: 51434

Units: mg/Kg

Prep Date: 5/22/2018

Result

Analysis Date: 5/22/2018

SeqNo: 1676144

HighLimit

%RPD **RPDLimit**

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-38253

SampType: Ics

SPK value SPK Ref Val %REC LowLimit

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 38253

PQL

RunNo: 51434

Units: mg/Kg

Prep Date: 5/22/2018 Analysis Date: 5/22/2018

SPK value SPK Ref Val

SeqNo: 1676145

HighLimit

%RPD **RPDLimit**

Qual

Analyte

Result

%REC 94.9

LowLimit

Chloride 14

1.5

15.00

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

Practical Quanitative Limit **PQL**

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

P RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 2 of 5

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

WO#:

1805B32

25-May-18

Client: Blagg Engineering LEEPER GC 1 Project:

Sample ID MB-38242

Sample ID LCS-38242	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch	n ID: 382	242	F	RunNo: 5	1394					
Prep Date: 5/22/2018	Analysis D	ate: 5/	22/2018	S	SeqNo: 1	674203	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	70	130				
Surr: DNOP	4.1		5.000		82.2	70	130				

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS	Batch	1 ID: 38	242	F	RunNo: 5	1394				
Prep Date: 5/22/2018	Analysis D	ate: 5/	22/2018	8	SeqNo: 1	674204	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.6	70	130			
				-						

Sample ID LCS-38269	SampType: LCS	CS TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 38269	RunNo: 51394					
Prep Date: 5/22/2018	Analysis Date: 5/23/2018	SeqNo: 1676949	Units: %Rec				
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual	1			
Surr: DNOP	5.3 5.00	0 105 70	130				

Sample ID MB-38269	SampType: MBLK	TestCo	de: EPA Method	8015M/D: Dies	sel Rang	e Organics	
Client ID: PBS	Batch ID: 38269	Runi	lo: 51394				
Prep Date: 5/22/2018	Analysis Date: 5/23/2	2018 Seqt	lo: 1676950	Units: %Rec			
Analyte	Result PQL SF	PK value SPK Ref Val %	REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12	10.00	116 70	130			

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 3 of 5

Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805B32

25-May-18

Qual

Client: Project: Blagg Engineering

LEEPER GC 1

1	Sample ID	WB-38240	Sampryp	2. IVI E	BLK	16	stCode:	EPA Method	8015D: Gasoi	line Rang	е
	Client ID:	PBS	Batch ID	38	240		RunNo:	51433			
	Prep Date:	5/21/2018	Analysis Date	: 5/	/22/2018		SeqNo:	1674601	Units: mg/Kg	g	
	Analyte		Result F	PQL	SPK value	SPK Ref Va	I %RE	C LowLimit	HighLimit	%RPD	RPDLimit

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 890 1000 89.0 15 316

Sample ID LCS-38240	SampType:	LCS	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch ID:	38240	R	RunNo: 5	1433				
Prep Date: 5/21/2018	Analysis Date:	5/22/2018	S	SeqNo: 1	674602	Units: mg/K	(g		
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0 25.00	0	115	75.9	131			
Surr: BFB	1100	1000		108	15	316			

Sample ID MB-38263 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: Batch ID: 38263 RunNo: 51480 Prep Date: 5/22/2018 Analysis Date: 5/23/2018 SeqNo: 1676698 Units: %Rec Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: BFB 910 1000 91.4 15 316

Sample ID LCS-3826	SampType: LCS	TestCoo	le: EPA Method 801	5D: Gasoline Range	
Client ID: LCSS	Batch ID: 3826	RunN	lo: 51480		
Prep Date: 5/22/201	8 Analysis Date: 5/23	8/2018 Seq.	lo: 1676699 Ur	nits: %Rec	
Analyte	Result PQL S	SPK value SPK Ref Val %F	REC LowLimit H	ighLimit %RPD	RPDLimit Qual
Surr: BFB	1000	1000	105 15	316	

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Practical Quanitative Limit PQL

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 4 of 5

Sample pH Not In Range

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

WO#: 1805B32

25-May-18

Blagg Engineering Client: LEEPER GC 1 Project:

Sample ID LCS-38240

Sample ID MB-38240 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 38240 RunNo: 51433 Prep Date: 5/21/2018 Analysis Date: 5/22/2018 SeqNo: 1674638 Units: mg/Kg Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual PQL LowLimit Analyte Benzene ND 0.025 ND 0.050 Toluene Ethylbenzene ND 0.050 0.10 Xylenes, Total ND Surr: 4-Bromofluorobenzene 1.0 1.000 102 120

LCSS Batch ID: 38240 RunNo: 51433 Client ID: Prep Date: Analysis Date: 5/22/2018 SeqNo: 1674639 Units: mg/Kg 5/21/2018 %REC %RPD **RPDLimit** PQL SPK value SPK Ref Val HighLimit Qual Analyte Result LowLimit 96.7 Benzene 0.97 0.025 1.000 0 77.3 128 0.99 0.050 1.000 0 98.6 79.2 125 Toluene 1.000 0 97.4 80.7 127 Ethylbenzene 0.97 0.050 3.000 0 100 81.6 129 Xylenes, Total 3.0 107 120 1.000 80 Surr: 4-Bromofluorobenzene 1.1

TestCode: EPA Method 8021B: Volatiles

TestCode: EPA Method 8021B: Volatiles Sample ID MB-38263 SampType: MBLK Client ID: PBS Batch ID: 38263 RunNo: 51480 Analysis Date: 5/23/2018 SeqNo: 1676739 Units: %Rec Prep Date: 5/22/2018 %REC Result PQL SPK value SPK Ref Val HighLimit %RPD **RPDLimit** Qual Analyte LowLimit Surr: 4-Bromofluorobenzene 1.0 1.000 102 80 120

TestCode: EPA Method 8021B: Volatiles Sample ID LCS-38263 SampType: LCS Client ID: LCSS Batch ID: 38263 RunNo: 51480 SeqNo: 1676740 Prep Date: 5/22/2018 Analysis Date: 5/23/2018 Units: %Rec %REC Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit %RPD **RPDLimit** Qual

Surr: 4-Bromofluorobenzene 1.0 1.000 103 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 5 of 5

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG	Work Order Numb	er: 1805	B32		RcptNo	: 1
Received By:	Anne Thorne	5/22/2018 6:45:00 A	M		am H.		
Completed By:	Anne Thorne	5/22/2018 7:03:59 A	М		Am St. Am St.		
Reviewed By:	30	5/12/18		,	Uma Jir		
	ched by AT 05						8
Chain of Cus	tody						
1. Is Chain of Ci	ustody complete?		Yes	V	No 🗌	Not Present	
2. How was the	sample delivered?		Couri	er			
Log In							
	npt made to cool the samples?	•	Yes	✓	No 🗆	NA 🗆	
4 Were all same	oles received at a temperature	of >0° C to 6 0°C	Yes		No 🗌	NA 🗆	
, violo all carrie	or a comporator	0.000.000	103			,,,	
5. Sample(s) in p	proper container(s)?	•	Yes	✓	No 🗌		
6. Sufficient sam	ple volume for indicated test(s	3)?	Yes	V	No 🗌		
7. Are samples (except VOA and ONG) proper	ly preserved?	Yes	✓	No 🗌		
8. Was preservat	tive added to bottles?		Yes		No 🗸	NA 🗆	
9. VOA vials have	e zero headspace?	*	Yes		No 🗌	No VOA Vials	
10. Were any sam	nple containers received broke	en?	Yes		No 🗹	# of preserved	
11 5					No 🗆	bottles checked	
	ork match bottle labels? ancies on chain of custody)		Yes	Y I .	No 🔲	for pH: (<2 or	>12 unless noted)
	correctly identified on Chain of	Custody?	Yes	V	No 🗆	Adjusted?	
13. Is it clear what	t analyses were requested?		Yes	V	No 🗆		
14. Were all holdir	ng times able to be met?		Yes	~	No 🗆	Checked by:	
	ustomer for authorization.)						
Special Handli	ing (if applicable)			_	_	_	
15. Was client not	tified of all discrepancies with	this order?	Yes		No 📙	NA 🗹	7
Person	Notified:	Date]		The second secon			
By Who	m:	Via:	eMa	il Phon	e 🗌 Fax	In Person	
Regardi	ng:	THE RESERVE THE PROPERTY OF THE PARTY OF THE	TO STANDARD THE STANDARD	Manager Committee of the Committee of th			
Client In	estructions:					of the state of th	
16. Additional ren	marks:						
17. Cooler Inform	mation						
Cooler No		eal Intact Seal No	Seal Da	te Sig	ned By	1	
11	1.0 Good Ye	\$					

C	Chain-of-Custody Record Client: BP AMERICA					Turn-Around Time:										T						
			ERING INC.		□ Standard Project Name):	SAME DAY	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com														
Mailing	Address	:	PROSE ENC.	NI SERVICE MARIE LA	LEEF	ER GC	1		490)1 H	awki								109			
			***		Project #:		1944				5-34				ax 5							
Phone a	#: 50	5-321	0-1183		*									-	sis F							
email o					Project Mana	ger:		(8021)	nly)	9					04)						T	T
QA/QC I	Package: dard		□ Level 4 (Fu	ıll Validation)						30 / MF			SIMS)		,PO ₄ ,S(PCB's						
Accredi		□ Othe	r		Sampler: JEFF BLAGE On Ice: No.				+ TPH (Gas only)	RO / DI	18.1)	04.1)	8270 \$		D ₃ ,NO ₂	s / 8082		(A)				or N)
□ EDD	(Type)_	T	Г		Sample Tem	olo lature : (444)	Maria Company		TBE	3 (G	od 4	od 5	0 0	etals	Ň,	cide	F	<u>-</u>	M			>
Date	Time	Matrix	Sample R	Request ID		Preservative Type	HEAL No	≱ + X	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	CHLORIDE			Air Bubbles (Y or N)
21/18	1113	SOIL	SVE AREA,	3-pt 06	402x1	Cox	701	X		Χ	_				-				Χ	_	+	+
							:				\dashv	-	_	\neg	\dashv	-	\dashv	-	-	+	+	+
																1				+	\dagger	+
																						1
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												\dashv	\dashv	\dashv	\dashv	-	-			+	+	+
															\dashv		_		\dashv	+	+	+
																				\top	1	\top
																						T
Date: Time: Relinquished by:				V1					Remarks: BUL BP CONTACT: STEVE MOSKAL													
Date: Time: Relinquished by:				Received by.	Must busite 72/18 1910 Received by: Date Time WBS ELEMENT; OS 22/17 OC 45							L	L1-001CR-E:LEEPERGO1									



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

June 04, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: Leeper GC 1 OrderNo.: 1805F78

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/31/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1805F78**

Date Reported: 6/4/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: West Wall 5-pt (2-4)

Project: Leeper GC 1

Collection Date: 5/30/2018 9:20:00 AM

Lab ID: 1805F78-001

Matrix: MEOH (SOIL) Received Date: 5/31/2018 7:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	5/31/2018 11:15:54 AM	38410
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/31/2018 10:33:39 AM	38404
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/31/2018 10:33:39 AM	38404
Surr: DNOP	99.7	70-130	%Rec	1	5/31/2018 10:33:39 AM	38404
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.2	mg/Kg	1	5/31/2018 10:20:41 AM	G51640
Surr: BFB	90.6	15-316	%Rec	1	5/31/2018 10:20:41 AM	G51640
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.016	mg/Kg	1	5/31/2018 10:20:41 AM	B51640
Toluene	ND	0.032	mg/Kg	1	5/31/2018 10:20:41 AM	B51640
Ethylbenzene	ND	0.032	mg/Kg	1	5/31/2018 10:20:41 AM	B51640
Xylenes, Total	ND	0.064	mg/Kg	1	5/31/2018 10:20:41 AM	B51640
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	5/31/2018 10:20:41 AM	B51640

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

RPDLimit

1805F78

04-Jun-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB-38410

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 38410

PQL

PQL

RunNo: 51634

HighLimit

Prep Date: 5/31/2018 Analysis Date: 5/31/2018

Result

SeqNo: 1685046

SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg

Analyte

Qual

Chloride

ND 1.5

SPK value SPK Ref Val

TestCode: EPA Method 300.0: Anions

LowLimit

LCSS

SampType: Ics Batch ID: 38410

RunNo: 51634

Prep Date: 5/31/2018

Sample ID LCS-38410

Analysis Date: 5/31/2018

SeqNo: 1685047 %REC

Units: mg/Kg

%RPD

%RPD

RPDLimit Qual

Analyte

Client ID:

Result

HighLimit 110

Chloride 14 1.5 15.00 0 94.6 90

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

Value above quantitation range

Analyte detected below quantitation limits

Page 2 of 5

Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F78 *04-Jun-18*

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID LCS-38404	SampType	e: LCS	Т	TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: LCSS	Batch ID	38404		RunNo: 5	1632								
Prep Date: 5/31/2018	Analysis Date	: 5/31/2018	3	SeqNo: 1	683764	Units: mg/Kg							
Analyte	Result P	QL SPK v	alue SPK Ref Va	al %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	45	10 5	0.00	89.6	70	130							
Surr: DNOP	4.4	5	.000	88.2	70	130							

Sample ID MB-38404	SampT	ype: ME	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: PBS	Batch	ID: 384	404	F	RunNo: 5	1632								
Prep Date: 5/31/2018	Analysis D	ate: 5/	31/2018	S	SeqNo: 1	683765	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	ND	10												
Motor Oil Range Organics (MRO)	ND	50												
Surr: DNOP	10		10.00		100	70	130							

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 3 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F78

04-Jun-18

Client: Blagg
Project: Leepe

Blagg Engineering Leeper GC 1

Dject: Leeper GC

Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: G51640 RunNo: 51640

Prep Date: Analysis Date: 5/31/2018 SeqNo: 1684314 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 950 1000 94.9 15 316

TestCode: EPA Method 8015D: Gasoline Range Sample ID 2.5UG GRO LCS SampType: LCS Client ID: LCSS Batch ID: G51640 RunNo: 51640 Prep Date: Analysis Date: 5/31/2018 SeqNo: 1684315 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

 Gasoline Range Organics (GRO)
 26
 5.0
 25.00
 0
 103
 75.9
 131

 Surr: BFB
 1100
 1000
 107
 15
 316

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 4 of 5

P Sample pH Not In Range

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805F78

04-Jun-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID RB	SampT	уре: МЕ	BLK	Tes						
Client ID: PBS	Batch	h ID: B5	1640	F	RunNo: 5	1640				
Prep Date:	Analysis D	Analysis Date: 5/31/2018			SeqNo: 1	684351	Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID 100NG BTEX LC	S Samp	Type: LC	s	TestCode: EPA Method 8021B: Volatiles										
Client ID: LCSS	Batc	h ID: B5	1640	F	RunNo: 5	1640								
Prep Date:	Analysis [Date: 5/	31/2018	S	SeqNo: 1	684352	Units: mg/K	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.95	0.025	1.000	0	94.6	77.3	128							
Toluene	0.96	0.050	1.000	0	96.3	79.2	125							
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127							
Xylenes, Total	2.9	0.10	3.000	0	97.3	81.6	129							
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120							

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 5 of 5

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 1901 Hawkins NE Albuquerque, NM 87109 TEL 505-345-3975 FAX: 305-345-4107 Website www.hallenvironmental.com

Sample Log-In Check List

Glien	I Name	BLAGG	Work Order Numb	er: 180	15F78		Rcp	tNo. 1
Recei	ived By	Isaiah Ortiz	5/31/2018 7:10:00 A	М		ICA	~	
Revie			5/31/2018 7 31:33 A 5/31/18 5B 05/31/18	М		ICA		
	of Cus					No	Not Present	_
		sample delivered?		Cou	rier	Nc	Not Present _	
	1-							
Log 3. Wa		npt made to cool the s	samples?	Yes	~	νο	NA _	
4. We	re all sam;	ples received at a terr	perature of >0° C to 6 0°C	Yes	~	No	NA -	
5. Sar	mple(s) in	proper container(s)?		Yes	V	No _		
S. Suff	ficient sam	nple volume for indical	ted test(s)?	Yes	v	No 🗆		
7. Are	samples (except VOA and ONC	B) properly preserved?	Yes	1	No		
8. Was	s preserva	tive added to bottles?		Yes		No 🗸	NA	
9. VOA	A vials hav	e zero headspace?		Yes		No 🗔	No VOA Via's ✓	
0. We	re any san	r ple containers receiv	ed broken?	Yes		No 🗸	# of preserved	
		ork match bottle labels		Yes	V	No 🗌	bottles checked for p∃ (<2	2 or >12 unless noted)
2. Are	matrices d	correctly identified on	Chain of Custody'?	Yes	V	No	Adjusted?	/ 00
3. Isit	clear what	t analyses were reque	sted?	Yes	Y	No	/	-0
		ng limes able to be mu ustomer for authorizat		Yes	Y	No	Checked	30
pecia	al Handi	ing (if applicable	2)					
15 Wa	s client na	tified of all discrepand	des with this order?	Yes		No	NA V	7
	Person	Notified	Date [
	By Who	om:	Via	eMa	arl _	Phone Fax	_ In Person	
	Regardi	ng			-			
	Client Ir	nstructions						
16 Add	ditional rer	narks						
	oler Infor		ion Seal Intact Seal No	Seal Da	ate	Signed By	I	

0.3

Date Time: Resinquished by: Date Time: Resinquished by:							56/ma 0920 5010 WEST WALL 5-PE	Date Time Matrix Sample Request ID	□ EDD (Type)	□ NELAP □ Other	on	QA/QC Package: Standard □ Level 4 (Full Validation)	email or Fax#:	Phone #: 505 - 320 - 1183		Mailing Address:	BLAG ENGINEERING INC.	CIERTE BP AMERICA	Chain-of-Custody Record
Received by: Date Time							HotxI car -an	Container Preservative HEAL No. Type and # Type 1805F78	Sample Temperature: 0.3	On loe: SkYes No	Sampler: JEFF Bushe	STEVE MOSER	Project Manager:		Project #:	LEEPER GC 1	Project Name:	□ Standard XRush Same DW	Turn-Around Time:
								BTEX + MT	BE	= 1	MB	s (802	1)						強
Remarks:					-			BTEX + MT		-					Tel.	490			
							_	TPH 8015B				RO / MI	RO)		Tel. 505-345-3975	4901 Hawkins NE			
2 2								EDB (Metho			-				45-3	kins 1	WW	Ž	
X P								PAH's (831	0 or	82	70 5	SIMS)	Ŷ	Ą	Oi		www.hallenvironmental.com	NALYSIS	
77-0 3724S			-	_	-		_	RCRA 8 Me	-	-	10	00.0	-	Analysis Request	FI 8	Albu	envir	S!	TI Z
5 2		-	+	+	+			Anions (F,C 8081 Pestic		-				is Re	x 50	quero	onme	S	5
70								8260B (VO/	_	» / C	002	FUDS		que	5-34	ue.	ntal.	5	D
Mosta CR-8					+			8270 (Semi-	NAME OF TAXABLE PARTY.	A)				St.	Fax 505-345-4107	Albuquerque, NM 87109	mod	B :	2
is o						,	×	CHLORIL	-						17	7109		Ž	≤
teve Mostal																		LABORATORY	ENVIRONMENTAL
Ell			-		+	-			***************************************									N P	
201			+	-	+	-	-	Air Bubbles	(Y (or N	J)		_					≺ .	

Air Bubbles (Y or N)

Appendix E

Monitor Well Groundwater Analytical Data Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NF. Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 29, 2018

Steve Moskal

Blagg Engineering

P. O. Box 87

Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: Leeper GC 1

OrderNo.: 1805D17

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/24/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1805D17

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: MW-13

Project: Leeper GC 1 Collection Date: 5/23/2018 9:50:00 AM 1805D17-001 Received Date: 5/24/2018 7:15:00 AM Lab ID: Matrix: AQUEOUS

Analyses	Result PQL Qual Units			DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	DJF
Benzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Toluene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Ethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Naphthalene	ND	2.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1-Methylnaphthalene	ND	4.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
2-Methylnaphthalene	ND	4.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Acetone	ND	10	μg/L	1	5/25/2018 3:03:47 PM	W51554
Bromobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Bromodichloromethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Bromoform	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Bromomethane	ND	3.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
2-Butanone	ND	10	μg/L	1	5/25/2018 3:03:47 PM	W51554
Carbon disulfide	ND	10	μg/L	1	5/25/2018 3:03:47 PM	W51554
Carbon Tetrachloride	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Chlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Chloroethane	ND	2.0	µg/L	1	5/25/2018 3:03:47 PM	W51554
Chloroform	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Chloromethane	ND	3.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
2-Chlorotoluene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
4-Chlorotoluene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
cis-1,2-DCE	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Dibromochloromethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Dibromomethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,3-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,4-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Dichlorodifluoromethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1-Dichloroethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1-Dichloroethene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2-Dichloropropane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,3-Dichloropropane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
2,2-Dichloropropane	ND	2.0	μg/L	1	5/25/2018 3:03:47 PM	W51554

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 7J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1805D17

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-13

Project: Leeper GC 1

Collection Date: 5/23/2018 9:50:00 AM

1805D17-001 Lab ID:

Received Date: 5/24/2018 7:15:00 AM Matrix: AQUEOUS

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	DJF
1,1-Dichloropropene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Hexachlorobutadiene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
2-Hexanone	ND	10	μg/L	1	5/25/2018 3:03:47 PM	W51554
Isopropylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
4-Isopropyltoluene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
4-Methyl-2-pentanone	ND	10	μg/L	1	5/25/2018 3:03:47 PM	W51554
Methylene Chloride	ND	3.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
n-Butylbenzene	ND	3.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
n-Propylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
sec-Butylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Styrene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
tert-Butylbenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
trans-1,2-DCE	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1,1-Trichloroethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,1,2-Trichloroethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Trichloroethene (TCE)	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Trichlorofluoromethane	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
1,2,3-Trichloropropane	ND	2.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Vinyl chloride	ND	1.0	μg/L	1	5/25/2018 3:03:47 PM	W51554
Xylenes, Total	ND	1.5	μg/L	1	5/25/2018 3:03:47 PM	W51554
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	5/25/2018 3:03:47 PM	W51554
Surr: 4-Bromofluorobenzene	111	70-130	%Rec	1	5/25/2018 3:03:47 PM	W51554
Surr: Dibromofluoromethane	106	70-130	%Rec	1	5/25/2018 3:03:47 PM	W51554
Surr: Toluene-d8	96.4	70-130	%Rec	1	5/25/2018 3:03:47 PM	W51554

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 7 J

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1805D17

Hall Environmental Analysis Laboratory, Inc. Date Reported: 5/29/2018

CLIENT: Blagg Engineering Client Sample ID: MW-12

Leeper GC 1 Collection Date: 5/23/2018 10:18:00 AM Project: Lab ID: 1805D17-002 Matrix: AQUEOUS Received Date: 5/24/2018 7:15:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8260B: VOLATILES					Analyst	t: DJF	
Benzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Toluene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Ethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Naphthalene	ND	2.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1-Methylnaphthalene	ND	4.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
2-Methylnaphthalene	ND	4.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Acetone	ND	10	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Bromobenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Bromodichloromethane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Bromoform	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Bromomethane	ND	3.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
2-Butanone	ND	10	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Carbon disulfide	ND	10	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Carbon Tetrachloride	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Chlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Chloroethane	ND	2.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Chloroform	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Chloromethane	ND	3.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
2-Chlorotoluene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
4-Chlorotoluene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
cis-1,2-DCE	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Dibromochloromethane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Dibromomethane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,3-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,4-Dichlorobenzene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
Dichlorodifluoromethane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,1-Dichloroethane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,1-Dichloroethene	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,2-Dichloropropane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
1,3-Dichloropropane	ND	1.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	
2,2-Dichloropropane	ND	2.0	μg/L	1	5/25/2018 3:33:18 PM	W51554	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 7 J

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1805D17

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Project:

Leeper GC 1

1805D17-002

Client Sample ID: MW-12

Collection Date: 5/23/2018 10:18:00 AM

Lab ID: Matrix: AQUEOUS Received Date: 5/24/2018 7:15:00 AM **Analyses** Result POL Qual Units **DF** Date Analyzed Batch **EPA METHOD 8260B: VOLATILES** Analyst: DJF 1,1-Dichloropropene ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L Hexachlorobutadiene ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 2-Hexanone ND 10 µg/L 1 5/25/2018 3:33:18 PM W51554 Isopropylbenzene ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 4-Isopropyltoluene ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L 1 4-Methyl-2-pentanone ND 10 5/25/2018 3:33:18 PM W51554 µg/L Methylene Chloride ND 3.0 5/25/2018 3:33:18 PM W51554 1 µg/L n-Butylbenzene ND 3.0 µg/L 5/25/2018 3:33:18 PM W51554 n-Propylbenzene ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 sec-Butylbenzene ND 1.0 1 5/25/2018 3:33:18 PM W51554 µg/L Styrene ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L tert-Butylbenzene ND 1.0 W51554 5/25/2018 3:33:18 PM µg/L 1,1,1,2-Tetrachloroethane ND 1.0 µg/L 5/25/2018 3:33:18 PM W51554 1,1,2,2-Tetrachloroethane ND 2.0 µg/L 1 5/25/2018 3:33:18 PM W51554 Tetrachloroethene (PCE) ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 trans-1,2-DCE ND 1.0 µg/L 5/25/2018 3:33:18 PM W51554 trans-1,3-Dichloropropene ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L 1 1,2,3-Trichlorobenzene ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L 1 1.2.4-Trichlorobenzene ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 1.1.1-Trichloroethane ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 1,1,2-Trichloroethane ND 1.0 µg/L 1 5/25/2018 3:33:18 PM W51554 Trichloroethene (TCE) ND 1.0 1 5/25/2018 3:33:18 PM W51554 µg/L Trichlorofluoromethane ND 1.0 5/25/2018 3:33:18 PM W51554 µg/L 1 1,2,3-Trichloropropane ND 2.0 µg/L 1 5/25/2018 3:33:18 PM W51554 W51554 Vinyl chloride ND 1.0 µg/L 1 5/25/2018 3:33:18 PM Xylenes, Total ND 1.5 µg/L 5/25/2018 3:33:18 PM W51554 Surr: 1,2-Dichloroethane-d4 99.7 70-130 %Rec 1 5/25/2018 3:33:18 PM W51554 Surr: 4-Bromofluorobenzene 70-130 %Rec 111 1 5/25/2018 3:33:18 PM W51554 Surr: Dibromofluoromethane 105 70-130 %Rec 1 5/25/2018 3:33:18 PM W51554

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

70-130

%Rec

97.2

Qualifiers:

Surr: Toluene-d8

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 4 of 7

W51554

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

5/25/2018 3:33:18 PM

Hall Environmental Analysis Laboratory, Inc.

WO#:

1805D17

29-May-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID rb	SampT	ype: ME	BLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch	ID: W	51554	R	unNo: 5	1554						
Prep Date:	Analysis D				eqNo: 1		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0										
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Methyl tert-butyl ether (MTBE)	ND	1.0										
1,2,4-Trimethylbenzene	ND	1.0										
1,3,5-Trimethylbenzene	ND	1.0										
1,2-Dichloroethane (EDC)	ND	1.0										
1,2-Dibromoethane (EDB)	ND	1.0										
Naphthalene	ND	2.0										
1-Methylnaphthalene	ND	4.0										
2-Methylnaphthalene	ND	4.0										
Acetone	ND	10										
Bromobenzene	ND	1.0										
Bromodichloromethane	ND	1.0										
Bromoform	ND	1.0										
Bromomethane	ND	3.0										
2-Butanone	ND	10										
Carbon disulfide	ND	10										
Carbon Tetrachloride	ND	1.0										
Chlorobenzene	ND	1.0										
Chloroethane	ND	2.0										
Chloroform	ND	1.0										
Chloromethane	ND	3.0										
2-Chlorotoluene	ND	1.0										
4-Chlorotoluene	ND	1.0										
cis-1,2-DCE	ND	1.0										
cis-1,3-Dichloropropene	ND	1.0										
1,2-Dibromo-3-chloropropane	ND	2.0										
Dibromochloromethane	ND	1.0										
Dibromomethane	ND	1.0										
1,2-Dichlorobenzene	ND	1.0										
1,3-Dichlorobenzene	ND	1.0										
1,4-Dichlorobenzene	ND	1.0										
Dichlorodifluoromethane	ND	1.0										
1,1-Dichloroethane	ND	1.0										
1,1-Dichloroethene	ND	1.0										
1,2-Dichloropropane	ND	1.0										
1,3-Dichloropropane	ND	1.0										
2,2-Dichloropropane	ND	2.0										
-,												

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 5 of 7

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805D17

29-May-18

Client:

Blagg Engineering

Project: L

Leeper GC 1

Sample ID rb	SampType: MBLK TestCode: EPA Method 8260B: VOLATILES									
Client ID: PBW	Batch	n ID: W	51554	R	unNo: 5	1554				
Prep Date:	Analysis D	ate: 5 /	25/2018	S	eqNo: 1	680912	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID 100ng Icsb	SampType: LCS TestCode: EPA Method 8260B: VO									
Client ID: LCSW	Batch ID: W51554 RunNo: 51554									
Prep Date:	Analysis D	ate: 5/	25/2018	S	SeqNo: 1	680913	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	22	1.0	20.00	0	110	70	130			
Chlorobenzene	21	1.0	20.00	0	106	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 6 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1805D17

29-May-18

Blagg Engineering Client: Project: Leeper GC 1

Sample ID 100ng lcsb	SampT	ype: LC	S	Tes	tCode: E	PA Method	8260B: VOL	ATILES			
Client ID: LCSW	Batch	ID: W	51554	F	RunNo: 51554						
Prep Date:	Analysis D	ate: 5/	25/2018	680913	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	23	1.0	20.00	0	117	70	130				
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130				
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130				
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130				
Surr: Dibromofluoromethane	10		10.00		100	70	130				
Surr: Toluene-d8	10		10.00		99.9	70	130				

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 7 of 7



Hall Environmental Analysts Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG Work Order	Number: 1805D17		RcptNo: 1	
		v.	•5.55	
Received By: Isaiah Ortiz 5/24/2018 7:15	5:00 AM	ICA	*	
Completed By: Erin Melendrez 5/24/2018 8:19	9:38 AM	I al		
Reviewed By: ENH 5/24/18	, J-			
Cabled Bu:				· [4]
Chain of Custody		*		
1. Is Chain of Custody complete?	Yes 🗸	No 🗆 N	lot Present	
2. How was the sample delivered?	Courier			
Log In				
3. Was an attempt made to cool the samples?	Yes 🗸	No 🗆	NA 🗆	
		_		
4. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0° C	Yes 🗸	No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?	Yes 🗹	No 🗌		
C. Sufficient complex volume for indicated test/o/2	Yes 🗸	No 🗆		
6. Sufficient sample volume for indicated test(s)?7. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗆		
8. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗆	/
G. 1120 p. 121 p	, 55		7	
9. VOA vials have zero headspace?	Yes 🗹	No No No	VOA Vials 🗆 🖊	//
10. Were any sample containers received broken?	Yes 🗀	No ✔ # of	preserved	10
11. Does paperwork match bottle labels?	Yes 🗸	No D bott	les checked //	
(Note discrepancies on chain of custody)	100		<2 or >12 un	less noted)
12. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?	
13. Is it clear what analyses were requested?	Yes 🗸	No 📙	Checked by:	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗆 💹	Checked by.	
Special Handling (if applicable)				
15. Was client notified of all discrepancies with this order?	Yes	No 🗆	NA 🗹	
		economic and a second s		
The second secon	Date: Via: □ eMail □ P	hone Fax Ir	n Person	
Regarding:		,,,,,,		
Client Instructions:	AND THE PERSON NAMED AND THE P		The state of the s	
16. Additional remarks:				
17. Cooler Information				
Cooler No Temp C Condition Seal Intact Seal	No Seal Date	Signed By		
1 0.1 Good Yes				
2 D.8 Good Yes				

C	hain	of-Cu	stody Record	Turn-Around	Time:			HALL ENVIRONMEN													
Client:	BP A	MERICA		Standard	□ Rush				Sir Call										TO		U
	BY ALL	F.161414	EERING INC.	Project Name	11							w.ha									
Mailing	Address	ENGIN	ZEN ING INC	LEEPE	R 6C 1				490	1 Ha	wkins							109			
				Project #:							5-345-						-4107		2		
Phone	#· 5n	C~ 37	0-483	1					10	. 000	7-040-			ysis	-						. 13
email o		0 00	0 - 1120	Project Mana	ger:				ly)	0	100										
QA/QC I	Package:		☐ Level 4 (Full Validation)	STEVE	E MOSKAL			TMB's (8021)	TPH (Gas only)	SO / MR		SIMS)		PO ₄ ,SC	PCB's						
Accredi				Sampler: J	EFF BLAG	6		MB,	표	P		0.0		02,	082						
□ NEL	AP	□ Othe	r		EFYes		The same of	F	+	00	418.1)	8270		3, N	/ 8		8				Z
□ EDD	(Type)			Sample Tem	perature 6	0.6		띪	H	9	4 b	o	tals	Ŋ,	des	2	9				ع
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	FAIFA		BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1) FDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
his pois	0950	Water	MW-13	3 × VO.A	HCL	-001										X					
ij	1018)	MW-12	11	iį	-002										X					
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Date: 23/19 Date:	Time:	Relinquishe	1 Blezz	Received by:	- Val	Date 5/23/13	Time 1628		narks	a	SILL E ONTAR	T1 5					: <i>L</i> E	EPE	 R 00	4	
5/23/18	1840	Mi	stud Dag res	16		5/24/18	75													_	
1	f necessary,	samples subr	mitted to Hall Environmental may be sub-	contracted to other a	ccredited laboratoric	es. This serves a	as notice of this	of this possibility. Any sub-contracted data will be clearly notated on the analytical report.													



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

OrderNo.: 1806B87

July 05, 2018

Steven Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413

TEL: (505) 632-1199 FAX (505) 632-3903

RE: Leeper GC 1

Dear Steven Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/20/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-14

Project: Leeper GC 1

Collection Date: 6/19/2018 9:18:00 AM

1806B87-001 Lab ID:

Matrix: AQUEOUS

Received Date: 6/20/2018 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Fluoride	0.56	0.10		mg/L	1	6/30/2018 12:15:55 AM	R52407
Chloride	27	10		mg/L	20	6/30/2018 12:28:46 AM	R52407
Nitrogen, Nitrite (As N)	ND	0.10	Н	mg/L	1	6/30/2018 12:15:55 AM	R52407
Bromide	ND	0.10		mg/L	1	6/30/2018 12:15:55 AM	R52407
Nitrogen, Nitrate (As N)	ND	0.10	Н	mg/L	1	6/30/2018 12:15:55 AM	R52407
Phosphorus, Orthophosphate (As P)	ND	0.50	Н	mg/L	1	6/30/2018 12:15:55 AM	R52407
Sulfate	230	10		mg/L	20	6/30/2018 12:28:46 AM	R52407
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	JRR
Conductivity	1000	5.0		µmhos/c	1	6/25/2018 3:11:07 PM	R52261
SM2320B: ALKALINITY						Analyst:	JRR
Bicarbonate (As CaCO3)	276.6	20.00		mg/L Ca	1	6/25/2018 3:11:07 PM	R52261
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/25/2018 3:11:07 PM	R52261
Total Alkalinity (as CaCO3)	276.6	20.00		mg/L Ca	1	6/25/2018 3:11:07 PM	R52261
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	KS
Total Dissolved Solids	1010	200	*D	mg/L	1	6/25/2018 4:16:00 PM	38842
SM4500-H+B / 9040C: PH						Analyst:	JRR
рН	7.68		Н	pH units	1	6/25/2018 3:11:07 PM	R52261
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	JLF
Calcium	150	5.0		mg/L	5	6/22/2018 4:18:24 PM	A52172
Magnesium	26	1.0		mg/L	1	6/22/2018 3:47:12 PM	A52172
Potassium	4.5	1.0		mg/L	1	6/22/2018 3:47:12 PM	A52172
Sodium	36	1.0		mg/L	1	6/22/2018 3:47:12 PM	A52172
EPA METHOD 8260B: VOLATILES						Analyst:	DJF
Benzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
Toluene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
Ethylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
Methyl tert-butyl ether (MTBE)	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
1,2,4-Trimethylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/26/2018 3:17:13 AM	W52225
1,2-Dichloroethane (EDC)	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
1,2-Dibromoethane (EDB)	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
Naphthalene	ND	2.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
1-Methylnaphthalene	ND	4.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
2-Methylnaphthalene	ND	4.0		μg/L	1	6/26/2018 3:17:13 AM	W52225
Acetone	ND	10		μg/L	1	6/26/2018 3:17:13 AM	W52225
Bromobenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W52225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 14 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-14

Project: Leeper GC 1

Collection Date: 6/19/2018 9:18:00 AM

Lab ID: 1806B87-001

Matrix: AQUEOUS

Received Date: 6/20/2018 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst	: DJF
Bromodichloromethane	ND	1.0		µg/L	1	6/26/2018 3:17:13 AM	W5222
Bromoform	ND	1.0		µg/L	1	6/26/2018 3:17:13 AM	W5222
Bromomethane	ND	3.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
2-Butanone	ND	10		μg/L	1	6/26/2018 3:17:13 AM	W5222
Carbon disulfide	ND	10		μg/L	1	6/26/2018 3:17:13 AM	W5222
Carbon Tetrachloride	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
Chlorobenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Chloroethane	ND	2.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
Chloroform	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Chloromethane	ND	3.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
2-Chlorotoluene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
4-Chlorotoluene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
cis-1,2-DCE	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
cis-1,3-Dichloropropene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,2-Dibromo-3-chloropropane	ND	2.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Dibromochloromethane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Dibromomethane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,2-Dichlorobenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,3-Dichlorobenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,4-Dichlorobenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Dichlorodifluoromethane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,1-Dichloroethane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,1-Dichloroethene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,2-Dichloropropane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,3-Dichloropropane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
2,2-Dichloropropane	ND	2.0		μg/L	1	6/26/2018 3:17:13 AM	W522
1,1-Dichloropropene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Hexachlorobutadiene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
2-Hexanone	ND	10		μg/L	1	6/26/2018 3:17:13 AM	W522
Isopropylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
4-Isopropyltoluene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
4-Methyl-2-pentanone	ND	10		μg/L	1	6/26/2018 3:17:13 AM	W522
Methylene Chloride	ND	3.0		μg/L	1	6/26/2018 3:17:13 AM	W522
n-Butylbenzene	ND	3.0		μg/L	1	6/26/2018 3:17:13 AM	W522
n-Propylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
sec-Butylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
Styrene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W522
tert-Butylbenzene	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W5222
1,1,1,2-Tetrachloroethane	ND	1.0		μg/L	1	6/26/2018 3:17:13 AM	W5222

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: MW-14

Collection Date: 6/19/2018 9:18:00 AM Leeper GC 1 Project: 1806B87-001 Matrix: AQUEOUS Received Date: 6/20/2018 7:15:00 AM Lab ID:

Result PQL Qual Units DF Date Analyzed Batch **Analyses** Analyst: DJF **EPA METHOD 8260B: VOLATILES** ND 6/26/2018 3:17:13 AM W52225 1,1,2,2-Tetrachloroethane 2.0 µg/L ND Tetrachloroethene (PCE) 1.0 µg/L 1 6/26/2018 3:17:13 AM W52225 trans-1,2-DCE ND 1.0 µg/L 1 6/26/2018 3:17:13 AM W52225 trans-1,3-Dichloropropene ND 1.0 µg/L 1 6/26/2018 3:17:13 AM W52225 W52225 1,2,3-Trichlorobenzene ND 1.0 µg/L 1 6/26/2018 3:17:13 AM 1,2,4-Trichlorobenzene ND W52225 1.0 µg/L 6/26/2018 3:17:13 AM ND 1.0 6/26/2018 3:17:13 AM W52225 1,1,1-Trichloroethane µg/L 1 1,1,2-Trichloroethane ND 1.0 µg/L 6/26/2018 3:17:13 AM W52225 Trichloroethene (TCE) ND 1.0 µg/L 1 6/26/2018 3:17:13 AM W52225 ND 1.0 6/26/2018 3:17:13 AM W52225 Trichlorofluoromethane µg/L 1 ND 6/26/2018 3:17:13 AM W52225 1,2,3-Trichloropropane 2.0 μg/L Vinyl chloride ND 1.0 µg/L 6/26/2018 3:17:13 AM W52225 1 Xylenes, Total ND 1.5 μg/L 1 6/26/2018 3:17:13 AM W52225 Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 1 6/26/2018 3:17:13 AM W52225 Surr: 4-Bromofluorobenzene 120 70-130 %Rec 1 6/26/2018 3:17:13 AM W52225 Surr: Dibromofluoromethane 95.2 70-130 %Rec 6/26/2018 3:17:13 AM W52225 Surr: Toluene-d8 101 70-130 %Rec 6/26/2018 3:17:13 AM W52225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL. Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 14 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Client Sample ID: MW-15

 Project:
 Leeper GC 1
 Collection Date: 6/19/2018 9:33:00 AM

 Lab ID:
 1806B87-002
 Matrix: AQUEOUS
 Received Date: 6/20/2018 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Fluoride	0.53	0.10		mg/L	1	6/30/2018 12:41:39 AM	R52407
Chloride	34	10		mg/L	20	6/30/2018 12:54:30 AM	R52407
Nitrogen, Nitrite (As N)	ND	0.10	Н	mg/L	1	6/30/2018 12:41:39 AM	R52407
Bromide	0.13	0.10		mg/L	1	6/30/2018 12:41:39 AM	R52407
Nitrogen, Nitrate (As N)	ND	0.10	Н	mg/L	1	6/30/2018 12:41:39 AM	R52407
Phosphorus, Orthophosphate (As P)	ND	0.50	Н	mg/L	1	6/30/2018 12:41:39 AM	R52407
Sulfate	110	10		mg/L	20	6/30/2018 12:54:30 AM	R52407
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	JRR
Conductivity	930	5.0		µmhos/c	1	6/25/2018 3:24:18 PM	R52261
SM2320B: ALKALINITY						Analyst:	JRR
Bicarbonate (As CaCO3)	330.5	20.00		mg/L Ca	1	6/25/2018 3:24:18 PM	R52261
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/25/2018 3:24:18 PM	R52261
Total Alkalinity (as CaCO3)	330.5	20.00		mg/L Ca	1	6/25/2018 3:24:18 PM	R52261
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	KS
Total Dissolved Solids	602	40.0	*D	mg/L	1	6/25/2018 4:16:00 PM	38842
SM4500-H+B / 9040C: PH						Analyst:	JRR
рН	7.88		Н	pH units	1	6/25/2018 3:24:18 PM	R52261
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	JLF
Calcium	130	5.0		mg/L	5	6/22/2018 4:20:13 PM	A52172
Magnesium	22	1.0		mg/L	1	6/22/2018 3:49:03 PM	A52172
Potassium	5.7	1.0		mg/L	1	6/22/2018 3:49:03 PM	A52172
Sodium	33	1.0		mg/L	1	6/22/2018 3:49:03 PM	A52172
EPA METHOD 8260B: VOLATILES						Analyst:	DJF
Benzene	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
Toluene	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
Ethylbenzene	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
Methyl tert-butyl ether (MTBE)	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/26/2018 3:46:44 AM	W52225
1,3,5-Trimethylbenzene	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2-Dichloroethane (EDC)	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2-Dibromoethane (EDB)	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
Naphthalene	ND	2.0		µg/L	1	6/26/2018 3:46:44 AM	W52225
1-Methylnaphthalene	ND	4.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
2-Methylnaphthalene	ND	4.0		μg/L	1	6/26/2018 3:46:44 AM	W52225
Acetone	ND	10		μg/L	1	6/26/2018 3:46:44 AM	W52225
Bromobenzene	ND	1.0		μg/L	1	6/26/2018 3:46:44 AM	W52225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-15

Project: Leeper GC 1

Collection Date: 6/19/2018 9:33:00 AM

Lab ID: 1806B87-002

Matrix: AQUEOUS

Received Date: 6/20/2018 7:15:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	: DJF
Bromodichloromethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Bromoform	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Bromomethane	ND	3.0	μg/L	1	6/26/2018 3:46:44 AM	W522
2-Butanone	ND	10	μg/L	1	6/26/2018 3:46:44 AM	W522
Carbon disulfide	ND	10	μg/L	1	6/26/2018 3:46:44 AM	W522
Carbon Tetrachloride	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Chlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Chloroethane	ND	2.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Chloroform	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
Chloromethane	ND	3.0	μg/L	1	6/26/2018 3:46:44 AM	W522
2-Chlorotoluene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
4-Chlorotoluene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
cis-1,2-DCE	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	6/26/2018 3:46:44 AM	W52
Dibromochloromethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
Dibromomethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,2-Dichlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,3-Dichlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,4-Dichlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
Dichlorodifluoromethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,1-Dichloroethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,1-Dichloroethene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,2-Dichloropropane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,3-Dichloropropane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
2,2-Dichloropropane	ND	2.0	μg/L	1	6/26/2018 3:46:44 AM	W52
1,1-Dichloropropene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
Hexachlorobutadiene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
2-Hexanone	ND	10	μg/L	1	6/26/2018 3:46:44 AM	W52
Isopropylbenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
4-Isopropyltoluene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
4-Methyl-2-pentanone	ND	10	μg/L	1	6/26/2018 3:46:44 AM	W52
Methylene Chloride	ND	3.0	μg/L	1	6/26/2018 3:46:44 AM	W52
n-Butylbenzene	ND	3.0	μg/L	1	6/26/2018 3:46:44 AM	W52
n-Propylbenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
sec-Butylbenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52
Styrene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
tert-Butylbenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W522

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806B87

Date Reported: 7/5/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW-15

Project: Leeper GC 1

Collection Date: 6/19/2018 9:33:00 AM

Lab ID: 1806B87-002

Matrix: AQUEOUS

Received Date: 6/20/2018 7:15:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst:	DJF
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
trans-1,2-DCE	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
1,1,1-Trichloroethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
1,1,2-Trichloroethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
Trichloroethene (TCE)	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
Trichlorofluoromethane	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
1,2,3-Trichloropropane	ND	2.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
Vinyl chloride	ND	1.0	μg/L	1	6/26/2018 3:46:44 AM	W52225
Xylenes, Total	ND	1.5	μg/L	1	6/26/2018 3:46:44 AM	W52225
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	6/26/2018 3:46:44 AM	W52225
Surr: 4-Bromofluorobenzene	115	70-130	%Rec	1	6/26/2018 3:46:44 AM	W52225
Surr: Dibromofluoromethane	99.5	70-130	%Rec	1	6/26/2018 3:46:44 AM	W52225
Surr: Toluene-d8	97.4	70-130	%Rec	1	6/26/2018 3:46:44 AM	W52225

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 18

1806B87 *05-Jul-18*

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB	SampT	ype: ml	olk	Tes	Code: E	PA Method	300.0: Anions	5		
Client ID: PBW	Batch	ID: R5	2407	F	unNo: 5	2407				
Prep Date:	Analysis D	ate: 6/	29/2018	S	eqNo: 1	718054	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Sample ID LCS	SampT	ype: lcs	<u> </u>	Tes	Code: E	PA Method	300.0: Anions	;		
Client ID: LCSW	Batch	ID: R5	2407	R	unNo: 5	2407				
Prep Date:	Analysis D	ate: 6/	29/2018	S	eqNo: 1	718055	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Prep Date:	Analysis	Date: 6	/29/2018	5	SeqNo: 1	718055	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.6	0.50	5.000	0	92.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	96.9	90	110			
Bromide	2.4	0.10	2.500	0	94.8	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	94.7	90	110			
Phosphorus, Orthophosphate	(As P 4.7	0.50	5.000	0	94.5	90	110			
Sulfate	9.1	0.50	10.00	0	91.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 7 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: **1806B87**

05-Jul-18

Client: Blagg Engineering
Project: Leeper GC 1

Sample ID rb SampType: MBLK TestCode: EPA Method 8260B: VOLATILES Client ID: **PBW** Batch ID: W52225 RunNo: 52225 Prep Date: Analysis Date: 6/25/2018 SeqNo: 1711003 Units: µg/L SPK value SPK Ref Val %REC Analyte Result PQL LowLimit HighLimit %RPD **RPDLimit** Qual ND 1.0 Benzene Toluene ND 1.0 Ethylbenzene ND 1.0 Methyl tert-butyl ether (MTBE) ND 1.0 1,2,4-Trimethylbenzene ND 1.0 1,3,5-Trimethylbenzene ND 1.0 ND 1,2-Dichloroethane (EDC) 1.0 ND 1,2-Dibromoethane (EDB) 1.0 Naphthalene ND 2.0 1-Methylnaphthalene ND 4.0 ND 4.0 2-Methylnaphthalene Acetone ND 10 ND Bromobenzene 1.0 ND Bromodichloromethane 1.0 Bromoform ND 1.0 Bromomethane ND 3.0 2-Butanone ND 10 Carbon disulfide ND 10 Carbon Tetrachloride ND 1.0 Chlorobenzene ND 1.0 Chloroethane ND 2.0 Chloroform ND 1.0 Chloromethane ND 3.0 2-Chlorotoluene ND 10 ND 4-Chlorotoluene 1.0 ND cis-1,2-DCE 1.0 ND 1.0 cis-1,3-Dichloropropene 1,2-Dibromo-3-chloropropane ND 2.0 Dibromochloromethane ND 1.0 ND 1.0 Dibromomethane 1,2-Dichlorobenzene ND 1.0 1,3-Dichlorobenzene ND 1.0 1,4-Dichlorobenzene ND 1.0 Dichlorodifluoromethane ND 1.0 1.1-Dichloroethane ND 1.0 1,1-Dichloroethene ND 1.0 1,2-Dichloropropane ND 1.0 ND 1.0 1,3-Dichloropropane 2,2-Dichloropropane ND 2.0

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 8 of 14

Hall Environmental Analysis Laboratory, Inc.

WO#:

1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID rb	SampTy	pe: ME	BLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch	ID: W	52225	R	RunNo: 5	2225				
Prep Date:	Analysis Da	ate: 6/	25/2018	S	SeqNo: 1	711003	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.1	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID 100ng Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch	ID: W	52225	F	lunNo: 5	2225				
Prep Date:	Analysis D	ate: 6/	25/2018	S	SeqNo: 1	711004	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	70	130			
Toluene	19	1.0	20.00	0	93.5	70	130			
Chlorobenzene	19	1.0	20.00	0	95.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 9 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID 100ng Ics	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch	ID: W	52225	F	RunNo: 5	2225				
Prep Date:	Analysis D	ate: 6/	25/2018	5	SeqNo: 1	711004	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	97.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			
Surr: Dibromofluoromethane	8.7		10.00		86.9	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 10 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#: 1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID Ics-1 ~20uS eC

SampType: LCS

TestCode: SM2510B: Specific Conductance

LCSW Client ID:

Batch ID: **R52261**

RunNo: 52261

Analysis Date: 6/25/2018

SeqNo: 1712311

Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit**

Prep Date:

Qual

Conductivity

22 5.0

19.98

111

120

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 11 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample ID MB	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	6010B: Disso	lved Meta	als	
Client ID: PBW	Batch	ID: A5	2172	F	RunNo: 5	2172				
Prep Date:	Analysis D	ate: 6/	22/2018	5	SeqNo: 1	709121	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID LCS	SampType	e: LC	S	Test	tCode: El	PA Method	6010B: Disso	Ived Meta	ıls	
Client ID: LCSW	Batch ID	D: A5	2172	R	RunNo: 5	2172				
Prep Date:	Analysis Date	e: 6/	22/2018	S	SeqNo: 1	709123	Units: mg/L			
Analyte	Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	101	80	120			
Magnesium	51	1.0	50.00	0	101	80	120			
Potassium	49	1.0	50.00	0	98.6	80	120			
Sodium	51	1.0	50.00	0	102	80	120			

Sample ID LCSD	SampT	ype: LC	SD	Tes	tCode: El	PA Method	6010B: Disso	olved Meta	als	
Client ID: LCSS02	Batch	ID: A5	2172	F	RunNo: 5	2172				
Prep Date:	Analysis D	ate: 6/	22/2018	S	SeqNo: 1	709124	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	97.4	80	120	3.54	20	
Magnesium	49	1.0	50.00	0	97.7	80	120	3.53	20	
Potassium	48	1.0	50.00	0	95.2	80	120	3.55	20	
Sodium	50	1.0	50.00	0	101	80	120	1.24	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Page 12 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Leeper GC 1

Sample	ID	mb-1	alk
--------	----	------	-----

SampType: MBLK

TestCode: SM2320B: Alkalinity

Client ID:

PBW

Batch ID: R52261

RunNo: 52261

Prep Date:

SeqNo: 1712267

Units: mg/L CaCO3

Analysis Date: 6/25/2018

Analyte

Result PQL ND 20.00 SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD

RPDLimit

Qual

Total Alkalinity (as CaCO3)

SampType: LCS

TestCode: SM2320B: Alkalinity

Sample ID Ics-1 alk Client ID: LCSW

Batch ID: R52261

RunNo: 52261

Prep Date:

Analysis Date: 6/25/2018

SeqNo: 1712268

Units: mg/L CaCO3

110

Analyte

Result

PQL

%REC

LowLimit

HighLimit

SPK value SPK Ref Val

98.4

%RPD **RPDLimit**

Qual

Total Alkalinity (as CaCO3)

78.68

20.00 80.00

TestCode: SM2320B: Alkalinity

Sample ID mb-2 alk

Client ID: PBW

SampType: MBLK

Batch ID: R52261

RunNo: 52261

Units: mg/L CaCO3

Prep Date:

Analysis Date: 6/25/2018

SeqNo: 1712291

RPDLimit

Analyte

Result PQL ND 20.00 SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

Qual

Total Alkalinity (as CaCO3)

Sample ID Ics-2 alk

LCSW

SampType: LCS

Batch ID: R52261

20.00

TestCode: SM2320B: Alkalinity

RunNo: 52261

Prep Date:

Client ID:

Analysis Date: 6/25/2018

79.72

SeqNo: 1712292

Units: mg/L CaCO3

RPDLimit

Analyte Total Alkalinity (as CaCO3) Result

PQL

SPK value

80.00

SPK Ref Val

%REC 99.7

LowLimit 90 HighLimit 110 %RPD

Qual

Qualifiers: Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit **PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 13 of 14

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1806B87

05-Jul-18

Client:

Blagg Engineering

Project:

Analyte

Client ID:

Leeper GC 1

Sample ID MB-38842

SampType: MBLK

TestCode: SM2540C MOD: Total Dissolved Solids

PBW Client ID:

Batch ID: 38842

RunNo: 52218

Prep Date: 6/22/2018 Analysis Date: 6/25/2018

SeqNo: 1710741

Units: mg/L HighLimit

RPDLimit

Qual

Total Dissolved Solids

PQL ND 20.0

SampType: LCS

TestCode: SM2540C MOD: Total Dissolved Solids

%RPD

Sample ID LCS-38842

Result

Batch ID: 38842

RunNo: 52218

Prep Date: 6/22/2018

LCSW

Analysis Date: 6/25/2018

SeqNo: 1710742

Units: mg/L

Analyte

Result

1000

HighLimit

%RPD

Qual

RPDLimit

1020

102

120

Total Dissolved Solids

PQL 20.0

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

LowLimit

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

Value above quantitation range

Analyte detected below quantitation limits

Page 14 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG	Work Order Number	er: 1806B87		RcptNo:	1
Received By: Isaiah Ortiz	6/20/2018 7:15:00 Al	М	IGH		
Completed By: Isaiah Ortiz	6/20/2018 8:35:42 Al	М	ICH		
Reviewed By: 78 MW Let 20 (8	6/20/19				
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample delivered?		Client			
Log In					
3. Was an attempt made to cool the sample	es?	Yes 🗹	No 🗌	NA 🗆	
4. Were all samples received at a temperat	ure of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated te	st(s)?	Yes 🗹	No 🗆	The	
7. Are samples (except VOA and ONG) pro	perly preserved?	Yes V M	WARR DI	9/20/1	
8. Was preservative added to bottles?		Yes 🖳 🕻	126/10 0 th	NA 🗆	
9. VOA vials have zero headspace?		Yes	No 🗆	No VOA Vials 🗹	
10. Were any sample containers received br	oken?	Yes	No 🗹	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	_	bottles checked 2 for pH:	>12 unless noted)
12. Are matrices correctly identified on Chain		Yes 🗸	No 🗆	Adjusted?	yes
3. Is it clear what analyses were requested?	,	Yes 🗹	No 🗆		0
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No 🗆	Checked by:	mw
Special Handling (if applicable)					
15. Was client notified of all discrepancies w	ith this order?	Yes	No 🗌	NA 🗹	
Person Notified:	Date:				
By Whom:	Via:	eMail F	Phone Fax	In Person	
Regarding:		to to on on the fire and they they partnerships that part the fire the terms	and anotherize the majority and the same and the same and the same and the same		
Client Instructions:	anna 18 3 - 2 Anna Arres	Filtered			
16. Additional remarks: For metals	-dissanaly sis:	powed fr	ron oolb	at 002B into	a 125 mi
Pottle lach, and add	led approx. 0.4	mLHN	03 to 001	c talk for	acceptack
Client Instructions: 16. Additional remarks: For metals 17. Cooler Information Cooler No Temp C Condition 1 1.4 Good	Seal Intact Seal No	Seal Date	Signed By	held for 2	24 hrs pa
1 1.4 Good	Yes			analysis	man fi
				or only as	61516
					10/5//

f necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this	4/9/18/18/10 / Muoting Miller I The courier 6/80/18 07:15	Time: Reinquished by: Received by: Date Time	Relinquished by: Received by: Date T										MW-15	WATER MW-14 3xVOA FOM HCL COOL -001	iner Preservative ====================================	BE	+ TPH	(Gas o	nly)	Phone #: 505 - 320 - 1183	Project #:	LEEPER GC 1	BLAS ENGINEERING INC. Project Name:	ST AMERICA Standard Prush
		Time	<u>,</u>										೦	20	(C)									
possibil			Rema													+ MTBE + TMB's (8021)								
ity. An		Sam.	arks:			-	+	+		+	┼-				BTEX + MTBE + TPH (Gas only)					Tel. 505	Tel.	4901 Hawkins NE		Н
y sub-		5	325			+	+	+	+	+	-	-			TPH 8015B (GRO / DRO / MRO) TPH (Method 418.1)				505		_			
possibility. Any sub-contracted data will be clearly notated on the analytical report.		The state of				+	+	+	+	+-	+					DB (Method 504.1) AH's (8310 or 8270 SIMS)				Tel. 505-345-3975	345	vking	www.h	
		A		-		+	+	+	+	+	+										397	Z Z		7
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		L1-001CR-E:LEEPEROOL	MOSTA.		\Box	+	+	+	+	_			X	X	8260B (VOA					Request	-345	ie, Z		5
		7-1				+	\dagger		T						8270 (Semi-	-	A)				Fax 505-345-4107	Albuquerque, NM 87109		
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cal rep		A H											X	X	TDS/	эН	CON					_		0
ort.		The state of the s														1								C
		8																						4
		Stemate.													Air Rubbles									

Air Bubbles (Y or N)

Chain-of-Custody Record

Turn-Around Time:

Appendix F New Monitor Well Logs

`\					
P.0		37, BL		ERING, ield, nm	
FIE	LD BC	RINC	i LC)G	BORING ID: Mw-14
CLIEN DRILL EQUIP DATE TOTAL	DEPTH:	TRACTO SED: 6 13/2018 15	R: G CME-S DATE CAS	EEOMAT SS E FINISH: _6/ SING TYPE & itu Flush	13/2015 BRILLER: KP LOGGED BY: JB SIZE: 2° PVC SLOT SIZE: 0.010 Mont Cover
DEPTH FEET	SAMPLE TIME	SAMPLE	OUM	Well Completion	SAMPLE DESCRIPTION
1' 2' 3' 4'	the state of the s	comings		KISER AND AND AND AND AND AND AND AND AND AND	SI(ty SAND, TAN, DRY (BACKFILL)
5' 6' 7' 8' 9'	0853	S.S.	0.0	o Sixted	Recover 18 SAA Sily SAND, MOIST, TAN (BACKFILL)
-10 - 11' 12' 13' 14'	c910			b(0,0)	Bit Chatter - River Cobbles
16' 17' 18' 19'		Tb	DRiu	E) = 15 [*]	
21' 22' 23' 24' 25'					
26' 27' 28' 29'	·				

BLAGG ENGINEERING, INC. Page <u>1</u> of <u>1</u> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199FIELD BORING LOG BORING ID: MW-15 @ LEEPER GC 1 PROJECT: _ CLIENT: BP America Production Co. DRILLING CONTRACTOR: GEOMAT EQUIPMENT USED: CME-SS

DATE START: 6/13/2012 DATE FINISH: 6/13/18 DRILLER: KP LOGGED BY: JCB

TOTAL DEPTH: 15' CASING TYPE & SIZE: 2 PVC SLOT SIZE: 0.010 Well Set with above Grade Riser SAMPLE | Field Well SAMPLE SAMPLE DESCRIPTION Completion OYM 1024 START cuthys DARK BROWN SILTY Clay, Lite Muistire, NU/NS 3' 1' RIVER Cobbles @ 4' Recover 10 CRUSHED ROCK Y SAUD, DOCK BROWN, Water Saturated, NO/NS. 1029 5.5. 0.0 6' cuttings River Cobbles, water Saturated Slotterd 8' 9' 10 0.000 12' 13' 14' 1055 15' 16' 17' 18' 19' 22' 23' 24' 25' 27' 28'