



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

November 22, 2016

Kerry Egan
Agave Energy Company
P.O. Box 158
Artesia, NM 88211
TEL: (575) 513-8988
FAX

RE: Catclaw Battery

OrderNo.: 1611784

Dear Kerry Egan:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/15/2016 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611784

Date Reported: 11/22/2016

CLIENT: Agave Energy Company

Client Sample ID: Catclaw #2a

Project: Catclaw Battery

Collection Date: 11/9/2016 4:30:00 PM

Lab ID: 1611784-001

Matrix: SOIL

Received Date: 11/15/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	340	30		mg/Kg	20	11/22/2016 2:20:53 AM	28786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	1200	97		mg/Kg	10	11/18/2016 4:41:09 PM	28696
Surr: DNOP	0	70-130	S	%Rec	10	11/18/2016 4:41:09 PM	28696
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	25	5.0		mg/Kg	1	11/17/2016 12:45:52 PM	28715
Surr: BFB	177	68.3-144	S	%Rec	1	11/17/2016 12:45:52 PM	28715
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/17/2016 12:45:52 PM	28715
Toluene	ND	0.050		mg/Kg	1	11/17/2016 12:45:52 PM	28715
Ethylbenzene	ND	0.050		mg/Kg	1	11/17/2016 12:45:52 PM	28715
Xylenes, Total	ND	0.10		mg/Kg	1	11/17/2016 12:45:52 PM	28715
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	11/17/2016 12:45:52 PM	28715

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611784

Date Reported: 11/22/2016

CLIENT: Agave Energy Company

Client Sample ID: Catclaw #3a

Project: Catclaw Battery

Collection Date: 11/9/2016 4:30:00 PM

Lab ID: 1611784-002

Matrix: SOIL

Received Date: 11/15/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	30		mg/Kg	20	11/22/2016 2:33:17 AM	28786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	210	99		mg/Kg	10	11/18/2016 5:24:21 PM	28696
Surr: DNOP	0	70-130	S	%Rec	10	11/18/2016 5:24:21 PM	28696
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/17/2016 1:56:44 PM	28715
Surr: BFB	90.5	68.3-144		%Rec	1	11/17/2016 1:56:44 PM	28715
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/17/2016 1:56:44 PM	28715
Toluene	ND	0.047		mg/Kg	1	11/17/2016 1:56:44 PM	28715
Ethylbenzene	ND	0.047		mg/Kg	1	11/17/2016 1:56:44 PM	28715
Xylenes, Total	ND	0.093		mg/Kg	1	11/17/2016 1:56:44 PM	28715
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	11/17/2016 1:56:44 PM	28715

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611784

Date Reported: 11/22/2016

CLIENT: Agave Energy Company

Client Sample ID: Catclaw #4a

Project: Catclaw Battery

Collection Date: 11/9/2016 4:30:00 PM

Lab ID: 1611784-003

Matrix: SOIL

Received Date: 11/15/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	900	30		mg/Kg	20	11/22/2016 2:45:42 AM	28786
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	160	9.9		mg/Kg	1	11/18/2016 6:07:17 PM	28696
Surr: DNOP	92.3	70-130		%Rec	1	11/18/2016 6:07:17 PM	28696
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/17/2016 3:07:40 PM	28715
Surr: BFB	86.9	68.3-144		%Rec	1	11/17/2016 3:07:40 PM	28715
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/17/2016 3:07:40 PM	28715
Toluene	ND	0.049		mg/Kg	1	11/17/2016 3:07:40 PM	28715
Ethylbenzene	ND	0.049		mg/Kg	1	11/17/2016 3:07:40 PM	28715
Xylenes, Total	ND	0.099		mg/Kg	1	11/17/2016 3:07:40 PM	28715
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	11/17/2016 3:07:40 PM	28715

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611784

22-Nov-16

Client: Agave Energy Company

Project: Catclaw Battery

Sample ID	MB-28786	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	28786	RunNo:	38900					
Prep Date:	11/21/2016	Analysis Date:	11/21/2016	SeqNo:	1215934	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-28786	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	28786	RunNo:	38900					
Prep Date:	11/21/2016	Analysis Date:	11/21/2016	SeqNo:	1215935	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611784

22-Nov-16

Client: Agave Energy Company

Project: Catclaw Battery

Sample ID MB-28696	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 28696		RunNo: 38803							
Prep Date: 11/16/2016	Analysis Date: 11/18/2016		SeqNo: 1212490		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.4		10.00		83.7	70	130			

Sample ID LCS-28696	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 28696		RunNo: 38803							
Prep Date: 11/16/2016	Analysis Date: 11/18/2016		SeqNo: 1212491		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.8	62.6	124			
Surr: DNOP	4.3		5.000		86.1	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611784

22-Nov-16

Client: Agave Energy Company

Project: Catclaw Battery

Sample ID MB-28715	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212061		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	840		1000		84.0	68.3	144			

Sample ID LCS-28715	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212062		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.9	74.6	123			
Surr: BFB	910		1000		90.6	68.3	144			

Sample ID 1611784-002AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Catclaw #3a	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212072		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.63	1.191	81.9	61.3	150			
Surr: BFB	940		985.2		95.4	68.3	144			

Sample ID 1611784-002AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: Catclaw #3a	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212073		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.6	22.98	1.191	80.8	61.3	150	7.87	20	
Surr: BFB	880		919.1		95.5	68.3	144	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611784

22-Nov-16

Client: Agave Energy Company

Project: Catclaw Battery

Sample ID MB-28715	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212095	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	0.98		1.000		98.3	80	120			

Sample ID LCS-28715	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212096	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.2	75.2	115			
Toluene	0.97	0.050	1.000	0	96.9	80.7	112			
Ethylbenzene	0.96	0.050	1.000	0	96.1	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	95.7	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID 1611784-001AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: Catclaw #2a	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212105	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9881	0	115	71.5	122			
Toluene	0.97	0.049	0.9881	0	98.5	71.2	123			
Ethylbenzene	0.98	0.049	0.9881	0	99.1	75.2	130			
Xylenes, Total	2.9	0.099	2.964	0.03703	95.8	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.9881		109	80	120			

Sample ID 1611784-001AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: Catclaw #2a	Batch ID: 28715		RunNo: 38797							
Prep Date: 11/16/2016	Analysis Date: 11/17/2016		SeqNo: 1212106	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9579	0	96.0	71.5	122	20.9	20	R
Toluene	0.97	0.048	0.9579	0	101	71.2	123	0.529	20	
Ethylbenzene	0.99	0.048	0.9579	0	103	75.2	130	0.952	20	
Xylenes, Total	2.9	0.096	2.874	0.03703	100	72.4	131	1.41	20	
Surr: 4-Bromofluorobenzene	1.1		0.9579		112	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
- R RPD outside accepted recovery limits
- 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



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: **AGAVE ENERGY COMP**

Work Order Number: **1611784**

RcptNo: **1**

Received by/date: AS 11/15/16

Logged By: **Lindsay Mangin** 11/15/2016 9:35:00 AM *[Signature]*

Completed By: **Lindsay Mangin** 11/15/2016 4:36:36 PM *[Signature]*

Reviewed By: AS 11/16/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes No NA
5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
6. Sample(s) in proper container(s)? Yes No
7. Sufficient sample volume for indicated test(s)? Yes No
8. Are samples (except VOA and ONG) properly preserved? Yes No
9. Was preservative added to bottles? Yes No NA
10. VOA vials have zero headspace? Yes No No VOA Vials
11. Were any sample containers received broken? Yes No
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
13. Are matrices correctly identified on Chain of Custody? Yes No
14. Is it clear what analyses were requested? Yes No
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes			

