



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

September 23, 2019

Johnny Titsworth
Burnett Oil Co Inc
PO Box 188
Loco Hills, NM 88255
TEL: (432) 425-2891
FAX

RE: Water Flood

OrderNo.: 1909764

Dear Johnny Titsworth:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/14/2019 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1909764

Date Reported: 9/23/2019

CLIENT: Burnett Oil Co Inc

Lab Order: 1909764

Project: Water Flood

Lab ID: 1909764-001

Collection Date: 9/13/2019

Client Sample ID: SP8 0-1

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	ND	60		mg/Kg	20	9/18/2019 3:46:00 PM	47554
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Lab ID: 1909764-002

Collection Date: 9/13/2019

Client Sample ID: SP8 1-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	ND	60		mg/Kg	20	9/18/2019 3:58:24 PM	47554
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Lab ID: 1909764-003

Collection Date: 9/13/2019

Client Sample ID: SP8 2-3

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 1:14:54 PM	47585
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Lab ID: 1909764-004

Collection Date: 9/13/2019

Client Sample ID: SP8 3-4

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 2:16:57 PM	47585
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Lab ID: 1909764-005

Collection Date: 9/13/2019

Client Sample ID: SP8 4-5

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 2:29:21 PM	47585
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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 Quantitative 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 Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1909764

Date Reported: 9/23/2019

CLIENT: Burnett Oil Co Inc

Lab Order: 1909764

Project: Water Flood

Lab ID: 1909764-006

Collection Date: 9/13/2019

Client Sample ID: SP11 0-1

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 2:41:45 PM	47585
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Lab ID: 1909764-007

Collection Date: 9/13/2019

Client Sample ID: SP11 1-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 2:54:10 PM	47585
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Lab ID: 1909764-008

Collection Date: 9/13/2019

Client Sample ID: SP11 2-3

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 3:06:35 PM	47585
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Lab ID: 1909764-009

Collection Date: 9/13/2019

Client Sample ID: SP11 3-4

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 3:19:00 PM	47585
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Lab ID: 1909764-010

Collection Date: 9/13/2019

Client Sample ID: SP11 4-5

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: CAS

Chloride	ND	60		mg/Kg	20	9/19/2019 3:31:25 PM	47585
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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 Quantitative 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 Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1909764

23-Sep-19

Client: Burnett Oil Co Inc

Project: Water Flood

Sample ID: MB-47554	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 47554	RunNo: 63009
Prep Date: 9/18/2019	Analysis Date: 9/18/2019	SeqNo: 2149781 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-47554	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 47554	RunNo: 63009
Prep Date: 9/18/2019	Analysis Date: 9/18/2019	SeqNo: 2149782 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	15	1.5 15.00 0 96.7 90 110

Sample ID: MB-47585	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 47585	RunNo: 63048
Prep Date: 9/19/2019	Analysis Date: 9/19/2019	SeqNo: 2150546 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-47585	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 47585	RunNo: 63048
Prep Date: 9/19/2019	Analysis Date: 9/19/2019	SeqNo: 2150547 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 95.2 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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
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P Sample pH Not In Range
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Sample Log-In Check List

Client Name: BURNETT OIL CO INC

Work Order Number: 1909764

RcptNo: 1

Received By: Leah Baca

9/14/2019 7:35:00 AM

Completed By: Erin Melendrez

9/14/2019 12:04:23 PM

Reviewed By: DAD 9/16/19

Leah Baca
EM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not 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 $>0^{\circ}\text{C}$ 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) properly 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? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. 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: ENM 9/16/19

Special Handling (if applicable)

15. 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:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	6.0	Good	Yes			
2	6.0	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Chain-of-Custody Record									
Client: <u>BUC</u>		Turn-Around Time: <u>5 day</u>							
		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush							
Mailing Address: <u>P.O. Box 188</u>		Project Name: <u>WATER Flood</u>							
Phone #: <u>432-425-2891</u>		Project #:							
email or Fax#: <u>jtitworth@burnetdail.com</u>		Project Manager: <u>Johnny Titworth</u>							
QA/QC Package: <u>K. Gorman - GasRegen.us</u>		Sampler: <u>Don Holt</u>							
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____		# of Coolers: <u>2</u> $5.8 + CF = 6.0$							
<input type="checkbox"/> EDD (Type) _____		Cooler Temp (including CF): <u>5.8 + 0.2 = 6.0</u>							
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.			
<u>9/13</u>	<u>PM</u>	<u>soil</u>	<u>SP8 0-1</u>	<u>Jar</u>		<u>1909764</u>			
			<u>1-2</u>			<u>-001</u>			
			<u>2-3</u>			<u>-002</u>			
			<u>3-4</u>			<u>-003</u>			
			<u>4-5</u>			<u>-004</u>			
			<u>Spill 0-1</u>			<u>-005</u>			
			<u>1-2</u>			<u>-006</u>			
			<u>2-3</u>			<u>-007</u>			
			<u>3-4</u>			<u>-008</u>			
			<u>4-5</u>			<u>-009</u>			
						<u>-010</u>			
Relinquished by: <u>Don Holt</u>		Relinquished by: <u>Don Holt</u>		Received by: <u>Don Holt</u>		Date: <u>9/13/19</u>		Time: <u>1:00</u>	
Date: <u>9/13</u>		Time: <u>PM</u>		Date: <u>9/13/19</u>		Time: <u>1:00</u>			
Date: <u>9/13/19</u>		Time: <u>1:00</u>		Date: <u>9/13/19</u>		Time: <u>1:00</u>			

Analysis Request

[illegible]

Remarks:

see remarks on file

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.