

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701**



Analytical Report

Prepared for:

Johnny Titsworth
Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland, TX 79705

Project: Water Flood

Project Number: [none]

Location: Loco Hills NM

Lab Order Number: 7C09001



NELAP/TCEQ # T104704156-16-6

Report Date: 03/21/17

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP11 0-1.0	7C09001-01	Soil	03/08/17 00:00	03-09-2017 11:48
SP11 1-2.0	7C09001-02	Soil	03/08/17 00:00	03-09-2017 11:48
SP11 2-3.0	7C09001-03	Soil	03/08/17 00:00	03-09-2017 11:48
SP11 3-4.0	7C09001-04	Soil	03/08/17 00:00	03-09-2017 11:48
SP11 4-5.0	7C09001-05	Soil	03/08/17 00:00	03-09-2017 11:48
SP12 0-1.0	7C09001-06	Soil	03/08/17 00:00	03-09-2017 11:48
SP12 1-2.0	7C09001-07	Soil	03/08/17 00:00	03-09-2017 11:48
SP12 2-3.0	7C09001-08	Soil	03/08/17 00:00	03-09-2017 11:48
SP12 3-4.0	7C09001-09	Soil	03/08/17 00:00	03-09-2017 11:48
SP12 4-5.0	7C09001-10	Soil	03/08/17 00:00	03-09-2017 11:48
SP13 0-1.0	7C09001-11	Soil	03/08/17 00:00	03-09-2017 11:48
SP13 1-2.0	7C09001-12	Soil	03/08/17 00:00	03-09-2017 11:48
SP13 2-3.0	7C09001-13	Soil	03/08/17 00:00	03-09-2017 11:48
SP13 3-4.0	7C09001-14	Soil	03/08/17 00:00	03-09-2017 11:48
SP13 4-5.0	7C09001-15	Soil	03/08/17 00:00	03-09-2017 11:48
SP14 0-1.0	7C09001-16	Soil	03/08/17 00:00	03-09-2017 11:48
SP14 1-2.0	7C09001-17	Soil	03/08/17 00:00	03-09-2017 11:48
SP14 2-3.0	7C09001-18	Soil	03/08/17 00:00	03-09-2017 11:48
SP14 3-4.0	7C09001-19	Soil	03/08/17 00:00	03-09-2017 11:48
SP14 4-5.0	7C09001-20	Soil	03/08/17 00:00	03-09-2017 11:48

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP11 0-1.0
7C09001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP11 1-2.0
7C09001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP11 2-3.0
7C09001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.01	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	1.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP11 3-4.0
7C09001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	2.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP11 4-5.0
7C09001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	2.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP12 0-1.0
7C09001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.03	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	3.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP12 1-2.0
7C09001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP12 2-3.0
7C09001-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	7.91	1.03	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	3.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP12 3-4.0
7C09001-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	13.3	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP12 4-5.0
7C09001-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	21.6	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP13 0-1.0
7C09001-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	2.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP13 1-2.0
7C09001-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	18.2	1.02	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	2.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP13 2-3.0
7C09001-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	338	1.05	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP13 3-4.0
7C09001-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1480	10.8	mg/kg dry	10	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP13 4-5.0
7C09001-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1610	10.8	mg/kg dry	10	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP14 0-1.0
7C09001-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	ND	1.02	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	2.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP14 1-2.0
7C09001-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	228	1.04	mg/kg dry	1	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP14 2-3.0
7C09001-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	4580	10.9	mg/kg dry	10	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	8.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP14 3-4.0
7C09001-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	3220	10.5	mg/kg dry	10	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

SP14 4-5.0
7C09001-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	1690	5.26	mg/kg dry	5	P7C1502	03/15/17	03/16/17	EPA 300.0	
% Moisture	5.0	0.1	%	1	P7C1305	03/13/17	03/13/17	% calculation	

Burnett Oil Company, Inc.
 24 Smith Road Suite 100
 Midland TX, 79705

Project: Water Flood
 Project Number: [none]
 Project Manager: Johnny Titsworth

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7C1305 - *** DEFAULT PREP ***										
Blank (P7C1305-BLK1) Prepared & Analyzed: 03/13/17										
% Moisture	ND	0.1	%							
Duplicate (P7C1305-DUP1) Source: 7C09001-18 Prepared & Analyzed: 03/13/17										
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P7C1305-DUP2) Source: 7C09006-03 Prepared & Analyzed: 03/13/17										
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P7C1305-DUP3) Source: 7C10003-01 Prepared & Analyzed: 03/13/17										
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P7C1305-DUP4) Source: 7C10017-12 Prepared & Analyzed: 03/13/17										
% Moisture	11.0	0.1	%		10.0			9.52	20	
Duplicate (P7C1305-DUP5) Source: 7C10013-03 Prepared & Analyzed: 03/13/17										
% Moisture	7.0	0.1	%		7.0			0.00	20	
Batch P7C1502 - *** DEFAULT PREP ***										
Blank (P7C1502-BLK1) Prepared: 03/15/17 Analyzed: 03/16/17										
Chloride	ND	1.00	mg/kg wet							
LCS (P7C1502-BS1) Prepared: 03/15/17 Analyzed: 03/16/17										
Chloride	372	1.00	mg/kg wet	400		93.1	80-120			
LCS Dup (P7C1502-BSD1) Prepared: 03/15/17 Analyzed: 03/16/17										
Chloride	374	1.00	mg/kg wet	400		93.5	80-120	0.448	20	

Burnett Oil Company, Inc.
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 Midland TX, 79705

Project: Water Flood
 Project Number: [none]
 Project Manager: Johnny Titsworth

Fax:

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P7C1502 - * DEFAULT PREP *****

Duplicate (P7C1502-DUP1)		Source: 7C09001-01			Prepared: 03/15/17 Analyzed: 03/16/17					
Chloride	ND	1.04	mg/kg dry		ND				20	
Duplicate (P7C1502-DUP2)		Source: 7C09001-11			Prepared: 03/15/17 Analyzed: 03/16/17					
Chloride	ND	1.02	mg/kg dry		ND				20	
Matrix Spike (P7C1502-MS1)		Source: 7C09001-01			Prepared: 03/15/17 Analyzed: 03/16/17					
Chloride	989	1.04	mg/kg dry	1040	ND	95.0	80-120			

Burnett Oil Company, Inc.
24 Smith Road Suite 100
Midland TX, 79705

Project: Water Flood
Project Number: [none]
Project Manager: Johnny Titsworth

Fax:

Notes and Definitions

BULK Samples received in Bulk soil containers
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:



Date:

3/21/2017

Brent Barron, Laboratory Director/Technical Director

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