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



Analytical Report

Prepared for:

Kevin Freeman

Burnett Oil Company, Inc.

24 Smith Road Suite 100

Midland, TX 79705

Project: Gissler B-5
Project Number: 10
Location: Loco Hills, NM

Lab Order Number: 6H05005



NELAP/TCEQ # T104704156-13-3

Report Date: 08/17/16

Project Number: 10

24 Smith Road Suite 100 Midland TX, 79705 Project Manager: Kevin Freeman

Fax:

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP1 (0-1')	6Н05005-01	Soil	08/05/16 00:00	08-05-2016 11:20
SP1 (1-1.5')	6Н05005-02	Soil	08/05/16 00:00	08-05-2016 11:20
SP1 (2-2.5')	6Н05005-03	Soil	08/05/16 00:00	08-05-2016 11:20
SP2 (0-1')	6Н05005-04	Soil	08/05/16 00:00	08-05-2016 11:20
SP2 (1-1.5')	6Н05005-05	Soil	08/05/16 00:00	08-05-2016 11:20
SP2 (2-2.5')	6Н05005-06	Soil	08/05/16 00:00	08-05-2016 11:20
SP2 (3-3.5")	6Н05005-07	Soil	08/05/16 00:00	08-05-2016 11:20
SP2 (4-4.5')	6Н05005-08	Soil	08/05/16 00:00	08-05-2016 11:20
SP3 (0-1')	6Н05005-09	Soil	08/05/16 00:00	08-05-2016 11:20
SP3 (1-1.5')	6Н05005-10	Soil	08/05/16 00:00	08-05-2016 11:20
SP3 (2-2.5')	6Н05005-11	Soil	08/05/16 00:00	08-05-2016 11:20
SP3 (3-3.5")	6Н05005-12	Soil	08/05/16 00:00	08-05-2016 11:20
SP3 (4-4.5')	6Н05005-13	Soil	08/05/16 00:00	08-05-2016 11:20
SP4 (0-1')	6Н05005-14	Soil	08/05/16 00:00	08-05-2016 11:20
SP4 (1-1.5')	6Н05005-15	Soil	08/05/16 00:00	08-05-2016 11:20
SP4 (2-2.5')	6Н05005-16	Soil	08/05/16 00:00	08-05-2016 11:20
SP4 (3-3.5")	6Н05005-17	Soil	08/05/16 00:00	08-05-2016 11:20
SP4 (4-4.5')	6Н05005-18	Soil	08/05/16 00:00	08-05-2016 11:20
SP5 (0-1')	6Н05005-19	Soil	08/05/16 00:00	08-05-2016 11:20
SP5 (1-1.5')	6Н05005-20	Soil	08/05/16 00:00	08-05-2016 11:20
SP5 (2-2.5')	6Н05005-21	Soil	08/05/16 00:00	08-05-2016 11:20
SP5 (3-3.5")	6Н05005-22	Soil	08/05/16 00:00	08-05-2016 11:20

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP1 (0-1') 6H05005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environment	al Lab, l	L.P.				
General Chemistry Parameters by EPA	Standard Methods	5							
Chloride	25.4	1.03	mg/kg dry	1	P6H0901	08/08/16	08/09/16	EPA 300.0	
% Moisture	3.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 801	5M							
C6-C12	148	25.8	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	1370	25.8	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	235	25.8	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		122 %	70-13	0	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		123 %	70-13	0	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1750	25.8	mg/kg dry	1	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP1 (1-1.5') 6H05005-02 (Soil)

									1
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	1010	12.5 mg/kg dry	10	P6H1003	08/09/16	08/12/16	EPA 300.0
% Moisture	20.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP1 (2-2.5') 6H05005-03 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	109	1.12 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	11.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP2 (0-1') 6H05005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte	Result	Lillit	Onits	Dilution	Batch	Frepared	Allalyzeu	Wethod	Notes
	Pern	nian Basin E	Environmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	0.832	0.109	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Toluene	10.5	0.217	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Ethylbenzene	3.48	0.109	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (p/m)	25.6	0.217	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (o)	16.5	0.109	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.5 %	75-1	25	P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		112 %	75-1	25	P6H0909	08/09/16	08/09/16	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	S							
Chloride	10.7	1.09	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	8.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
C6-C12	2550	136	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	10900	136	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	2040	136	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		123 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	15500	136	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP2 (1-1.5') 6H05005-05 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Perm	ian Basin F	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	1.51	0.106	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Toluene	22.7	0.213	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Ethylbenzene	17.0	0.106	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (p/m)	46.5	0.213	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (o)	27.1	0.106	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		117 %	75-125		P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.4 %	75-1.	25	P6H0909	08/09/16	08/09/16	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Methods	S							
Chloride	8.33	1.06	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	6.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	15M							
C6-C12	2110	133	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	5820	133	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	1160	133	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-1.	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1.	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	9080	133	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP2 (2-2.5') 6H05005-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Environmen	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	3.88	0.122	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Toluene	98.3	0.244	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Ethylbenzene	102	0.122	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (p/m)	117	0.244	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Xylene (o)	67.9	0.122	mg/kg dry	100	P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	75-1	25	P6H0909	08/09/16	08/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-1	25	P6H0909	08/09/16	08/09/16	EPA 8021B	
General Chemistry Parameters by EF	PA / Standard Method	s							
Chloride	8.10	1.22	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	18.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 80	15M							
C6-C12	6720	152	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	13300	152	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	2440	152	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		131 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	S-GC
Surrogate: o-Terphenyl		109 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	22500	152	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP2 (3-3.5") 6H05005-07 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ntal Lab, l	L.P.				
Organics by GC									
Benzene	2.55	0.287	mg/kg dry	250	P6H0909	08/09/16	08/10/16	EPA 8021B	
Toluene	2.30	0.575	mg/kg dry	250	P6H0909	08/09/16	08/10/16	EPA 8021B	
Ethylbenzene	2.83	0.287	mg/kg dry	250	P6H0909	08/09/16	08/10/16	EPA 8021B	
Xylene (p/m)	8.72	0.575	mg/kg dry	250	P6H0909	08/09/16	08/10/16	EPA 8021B	
Xylene (o)	1.91	0.287	mg/kg dry	250	P6H0909	08/09/16	08/10/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	75-1	25	P6H0909	08/09/16	08/10/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		140 %	75-1	25	P6H0909	08/09/16	08/10/16	EPA 8021B	S-GC
General Chemistry Parameters by EP	A / Standard Methods	s							
Chloride	3.24	1.15	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	13.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	15M							
C6-C12	107	28.7	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	670	28.7	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	121	28.7	mg/kg dry	1	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		129 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		134 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	S-GC
Total Petroleum Hydrocarbon	897	28.7	mg/kg dry	1	[CALC]	08/16/16	08/16/16	calc	
C6-C35									

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP2 (4-4.5')

6H05005-08 (Soil)

Reporting

Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

 Chloride
 2.12
 1.02
 mg/kg dry
 1
 P6H1004
 08/09/16
 08/12/16
 EPA 300.0

 % Moisture
 2.0
 0.1
 %
 1
 P6H1101
 08/11/16
 08/11/16
 % calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP3 (0-1') 6H05005-09 (Soil)

		Reporting		•					
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environmer	ıtal Lab,	L.P.				
General Chemistry Parameters by E	PA / Standard Methods	5							
Chloride	2.01	1.02	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	2.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C	C35 by EPA Method 801	5M							
C6-C12	1650	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	5950	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	885	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	8490	128	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP3 (1-1.5') 6H05005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin I	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EPA / S	standard Methods								
Chloride	ND	1.02	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	2.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 801	5M							
C6-C12	559	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	2830	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	436	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		122 %	70-1.	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-1.	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	3830	128	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP3 (2-2.5') 6H05005-11 (Soil)

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		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	1.22	1.05 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	5.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP3 (3-3.5") 6H05005-12 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	4.41	1.05 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	5.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP3 (4-4.5') 6H05005-13 (Soil)

Reporting

Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

 Chloride
 5.38
 1.05 mg/kg dry
 1 P6H1004 08/09/16
 08/12/16
 EPA 300.0

 % Moisture
 5.0
 0.1 %
 1 P6H1101 08/11/16
 08/11/16 08/11/16
 % calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP4 (0-1') 6H05005-14 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environme	ntal Lab,	L.P.				
General Chemistry Parameters by EP	A / Standard Methods	S							
Chloride	ND	1.02	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	2.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	15M							
C6-C12	558	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C12-C28	3530	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
>C28-C35	592	128	mg/kg dry	5	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: 1-Chlorooctane		123 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-1	30	P6H1706	08/16/16	08/16/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	4680	128	mg/kg dry	5	[CALC]	08/16/16	08/16/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP4 (1-1.5') 6H05005-15 (Soil)

									I .
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	2.60	1.09 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	8.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP4 (2-2.5') 6H05005-16 (Soil)

									I .
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	3.97	1.10 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	9.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP4 (3-3.5") 6H05005-17 (Soil)

									I .
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	5.62	1.08 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	7.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP4 (4-4.5')

6H05005-18 (Soil)

Reporting

Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

 Chloride
 7.49
 1.05 mg/kg dry
 1 P6H1004 08/09/16
 08/12/16
 EPA 300.0

 % Moisture
 5.0
 0.1 %
 1 P6H1101 08/11/16
 08/11/16 08/11/16
 % calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP5 (0-1') 6H05005-19 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Environmer	ital Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.0213	mg/kg dry	20	P6H0909	08/09/16	08/10/16	EPA 8021B	
Toluene	1.40	0.0426	mg/kg dry	20	P6H0909	08/09/16	08/10/16	EPA 8021B	
Ethylbenzene	1.17	0.0213	mg/kg dry	20	P6H0909	08/09/16	08/10/16	EPA 8021B	
Xylene (p/m)	7.45	0.0426	mg/kg dry	20	P6H0909	08/09/16	08/10/16	EPA 8021B	
Xylene (o)	5.71	0.0213	mg/kg dry	20	P6H0909	08/09/16	08/10/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.1 %	75-1	25	P6H0909	08/09/16	08/10/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		144 %	75-1	25	P6H0909	08/09/16	08/10/16	EPA 8021B	S-GC
General Chemistry Parameters by EPA	/ Standard Method	ls							
Chloride	10.6	1.06	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0	
% Moisture	6.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	1310	133	mg/kg dry	5	P6H1706	08/16/16	08/17/16	TPH 8015M	
>C12-C28	7480	133	mg/kg dry	5	P6H1706	08/16/16	08/17/16	TPH 8015M	
>C28-C35	1320	133	mg/kg dry	5	P6H1706	08/16/16	08/17/16	TPH 8015M	
Surrogate: 1-Chlorooctane		125 %	70-1	30	P6H1706	08/16/16	08/17/16	TPH 8015M	
Surrogate: o-Terphenyl		129 %	70-1	30	P6H1706	08/16/16	08/17/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	10100	133	mg/kg dry	5	[CALC]	08/16/16	08/17/16	calc	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP5 (1-1.5') 6H05005-20 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes				
Permian Basin Environmental Lab, L.P.													
General Chemistry Parameters by EPA	/ Standard Methods												
Chloride	5.82	1.11	mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0					
% Moisture	10.0	0.1	%	1	P6H1101	08/11/16	08/11/16	% calculation					
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8015	M											
C6-C12	ND	27.8	mg/kg dry	1	P6H1706	08/16/16	08/17/16	TPH 8015M					
>C12-C28	54.0	27.8	mg/kg dry	1	P6H1706	08/16/16	08/17/16	TPH 8015M					
>C28-C35	34.2	27.8	mg/kg dry	1	P6H1706	08/16/16	08/17/16	TPH 8015M					
Surrogate: 1-Chlorooctane		112 %	70-13	80	P6H1706	08/16/16	08/17/16	TPH 8015M					
Surrogate: o-Terphenyl		118 %	70-13	80	P6H1706	08/16/16	08/17/16	TPH 8015M					
Total Petroleum Hydrocarbon C6-C35	88.2	27.8	mg/kg dry	1	[CALC]	08/16/16	08/17/16	calc					

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP5 (2-2.5') 6H05005-21 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	6.79	1.18 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	15.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

SP5 (3-3.5") 6H05005-22 (Soil)

									I .
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

Chloride	14.2	1.16 mg/kg dry	1	P6H1004	08/09/16	08/12/16	EPA 300.0
% Moisture	14.0	0.1 %	1	P6H1101	08/11/16	08/11/16	% calculation

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

0.0496

Organics by GC - Quality Control Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
B. J. B. HOOM	(GG)									

Blank (P6H0909-BLK1)				Prepared & A	Analyzed:	08/09/16				
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0643		"	0.0600		107	75-125			
Surrogate: 4-Bromofluorobenzene	0.0860		"	0.0600		143	75-125			S-GC
LCS (P6H0909-BS1)				Prepared & A	Analyzed:	08/09/16				
Benzene	0.104	0.00100	mg/kg wet	0.110		94.7	70-130			
Toluene	0.113	0.00200	"	0.110		103	70-130			
Ethylbenzene	0.122	0.00100	"	0.110		110	70-130			
Xylene (p/m)	0.244	0.00200	"	0.220		111	70-130			
Xylene (o)	0.125	0.00100	"	0.110		114	70-130			
Surrogate: 1,4-Difluorobenzene	0.0694		"	0.0600		116	75-125			
Surrogate: 4-Bromofluorobenzene	0.0866		"	0.0600		144	75-125			S-GC
LCS Dup (P6H0909-BSD1)				Prepared: 08	3/09/16 Aı	nalyzed: 08	3/10/16			
Benzene	0.110	0.00100	mg/kg wet	0.110		100	70-130	5.42	20	
Toluene	0.111	0.00200	"	0.110		101	70-130	1.95	20	
Ethylbenzene	0.130	0.00100	"	0.110		118	70-130	6.57	20	
Xylene (p/m)	0.264	0.00200	"	0.220		120	70-130	7.85	20	
Xylene (o)	0.147	0.00100	"	0.110		133	70-130	15.8	20	
Surrogate: 4-Bromofluorobenzene	0.106		"	0.0600		176	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.0600		"	0.0600		100	75-125			
Duplicate (P6H0909-DUP1)	Sou	rce: 6H08001	1-01	Prepared & A	Analyzed:	08/09/16				
Benzene	0.527	0.106	mg/kg dry		0.766			37.0	20	R3
Toluene	8.32	0.213	"		12.9			43.2	20	R3
Ethylbenzene	2.48	0.106	"		3.73			40.3	20	R3
Xylene (p/m)	24.2	0.213	"		38.6			45.7	20	R3
Xylene (o)	5.47	0.106	"		8.85			47.3	20	R3

Surrogate: 1,4-Difluorobenzene

77.8

75-125

0.0638

Fax:

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P6H0901 - *** DEFAULT PREP ***										
Blank (P6H0901-BLK1)				Prepared &	& Analyzed:	08/08/16				
Chloride	ND	1.00	mg/kg wet							
LCS (P6H0901-BS1)				Prepared &	& Analyzed:	08/08/16				
Chloride	439	1.00	mg/kg wet	400		110	80-120			
LCS Dup (P6H0901-BSD1)				Prepared &	& Analyzed:	08/08/16				
Chloride	447	1.00	mg/kg wet	400		112	80-120	1.67	20	
Duplicate (P6H0901-DUP1)	Sou	rce: 6H03015	5-05	Prepared &	& Analyzed:	08/08/16				
Chloride	2770	5.49	mg/kg dry		2770			0.0158	20	
Duplicate (P6H0901-DUP2)	Sou	rce: 6H03015	5-15	Prepared: (08/08/16 A	nalyzed: 08	3/09/16			
Chloride	3400	11.5	mg/kg dry		3400			0.108	20	
Batch P6H1003 - *** DEFAULT PREP ***										
Blank (P6H1003-BLK1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	ND	1.00	mg/kg wet							
LCS (P6H1003-BS1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	410	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P6H1003-BSD1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	418	1.00	mg/kg wet	400		105	80-120	2.02	20	
Duplicate (P6H1003-DUP1)	Sou	rce: 6H09001	1-01	Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	2890	11.4	mg/kg dry		2610			10.2	20	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

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
Analyte	Result	Liiiit	Ollits	Level	Result	70KEC	Limits	KI D	Dillit	ivotes
Batch P6H1003 - *** DEFAULT PREP ***										
Duplicate (P6H1003-DUP2)	Sou	rce: 6H05008	3-02	Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	1710	5.05	mg/kg dry		1520			11.5	20	
Batch P6H1004 - *** DEFAULT PREP ***										
Blank (P6H1004-BLK1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	ND	1.00	mg/kg wet							
LCS (P6H1004-BS1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	420	1.00	mg/kg wet	400		105	80-120			
LCS Dup (P6H1004-BSD1)				Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	418	1.00	mg/kg wet	400		104	80-120	0.459	20	
Duplicate (P6H1004-DUP1)	Sou	rce: 6H05005	5-05	Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	6.79	1.06	mg/kg dry		8.33			20.4	20	R4
Duplicate (P6H1004-DUP2)	Sou	rce: 6H05005	5-13	Prepared: (08/09/16 A	nalyzed: 08	3/12/16			
Chloride	3.13	1.05	mg/kg dry		5.38			53.0	20	R4
Batch P6H1101 - *** DEFAULT PREP ***										
Blank (P6H1101-BLK1)				Prepared &	k Analyzed:	: 08/11/16				
% Moisture	ND	0.1	%							
Duplicate (P6H1101-DUP1)	Sou	rce: 6H05007	'-01	Prepared &	k Analyzed:	08/11/16				
% Moisture	2.0	0.1	%		3.0			40.0	20	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

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 P6H1101 - *** DEFAULT PREP *** Duplicate (P6H1101-DUP2)	Sourc	се: 6Н05012-	17	Prepared &	Analyzed:	08/11/16				
% Moisture	5.0	0.1	%		4.0			22.2	20	
Duplicate (P6H1101-DUP3)	Sourc	се: 6Н05018-	06	Prepared &	Analyzed:	08/11/16				
% Moisture	8.0	0.1	%		8.0			0.00	20	

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - 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 P6H1706 - TX 1005										
Blank (P6H1706-BLK1)				Prepared &	: Analyzed:	08/16/16				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	62.0		"	50.0		124	70-130			
LCS (P6H1706-BS1)				Prepared &	: Analyzed:	08/16/16				
C6-C12	1200	25.0	mg/kg wet	1000		120	75-125			
>C12-C28	1170	25.0	"	1000		117	75-125			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	62.7		"	50.0		125	70-130			
LCS Dup (P6H1706-BSD1)				Prepared &	: Analyzed:	08/16/16				
C6-C12	1060	25.0	mg/kg wet	1000		106	75-125	12.8	20	
>C12-C28	1100	25.0	"	1000		110	75-125	5.61	20	
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	60.4		"	50.0		121	70-130			
Duplicate (P6H1706-DUP1)	Sou	rce: 6H05005	5-13	Prepared: (08/16/16 A	nalyzed: 08	/17/16			
C6-C12	220	26.3	mg/kg dry		197			10.9	20	
>C12-C28	1790	26.3	"		1660			7.51	20	
Surrogate: 1-Chlorooctane	137		"	105		130	70-130			
Surrogate: o-Terphenyl	68.9		"	52.6		131	70-130			S-G

24 Smith Road Suite 100 Project Number: 10

Midland TX, 79705 Project Manager: Kevin Freeman

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

R4 Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

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

	Drew	Darron			
Report Approved By:			Date:	8/17/2016	

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Permian Basin En

Midland, Texas 79701	1400 Rankin Hwy	Permian Basin Environmental Lab, I
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****		Relinquished by:	Relinquished by:		Relinquis	BTEX /	Special	4	3	Ú	'n	د کر		١	Ž	L L	٤	LAB#(lab use only)	(lab use only) ORDER #:							
			hed by:		Relinquished by: Date Time	BTEX AT SP-2 AND SP-5 RUN 0'-1' IF BTEX OVER 50 MG/KG OR BENZENE OVER 10 MG/KG RUN DEEPER SAMPLE RUN TPH ON ALL, RUN 0'-1', IF TPH EXCEEDS 5,000 MG/KG RUN DEEPER SAMPLE / RUN CHLORIDES ON ALL SAMPLES	nstructions:	S	S	S	S		S	S	S			2	2 1000 H P 1000 E		Sampler Signature	Telephone No:	City/State/Zip:	Company Address:	Company Name	Project Manager:
1		and the same and t		89		RUN 0'-1' IF BTE		SP2-4'-4.5'	SP2-3'-3.5"	SP2-2'-2.5'	SP2-1'-1.5'	SP2-0'-1'	SP1-4'-4.5'	SP1-3'-3.5"	SP1-2'-2.5'	SP1-1'-1.5'	SP1-0'-1'	FIELD CODE	85		-	432-425-2891	Midland, TX 70705	24 Smith Road, Suite 100	Burnett Oil Company, Inc.	Kevin Freeman & Johnny Titsworth
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Phone: 432-686-7235

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

	Permian Basin Environmental Lab, LP		Phone: 432-686-7235
	1400 Rankin Hwy Midland, Texas 79701		
Project Manager: Kevin Freeman & Johnny Titsworth		Project Name:	GISSLER B-5
Company Name Burnett Oil Company, Inc.		Project#:	10
Company Address: 24 Smith Road, Suite 100		Project Loc:	Loco Hills, NM

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SP3-0'-1' FIELD CODE

_AB # (lab use only)

(lab use only) (0 H 0 S (0) S

Sampler Signature: Telephone No: City/State/Zip:

SP3-4'-4.5' SP3-3'-3.5" SP3-2'-2.5' SP3-1'-1.5'

SP4-0'-1'

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SP4-3'-3.5" SP4-2'-2.5' SP4-1'-1.5'

Relinquished by:

BTEX AT SP-2 AND SP-5 RUN 0'-1' IF BTEX OVER 50 MG/KG OR BENZENE OVER 10 MG/KG RUN DEEPER SAMPLE RUN TPH ON ALL, RUN 0'-1', IF TPH EXCEEDS 5,000 MG/KG RUN DEEPER SAMPLE / RUN CHLORIDES ON ALL SAMPLES | Date | Time | Date | Da ORDER #: (Q 1405005 Special Instructions: Relinquished by: Relinquished by: ै इ lab use only) 23 LAB # (lab use only) City/State/Zip: Company Address: Company Name Project Manager: Sampler Signature: Telephone No: SP5-3'-3.5" SP5-4'-4.5' SP5-2'-2.5' SP5-1'-1.5' FIELD CODE SP5-0'-1' 24 Smith Road, Suite 100 432-425-2891 Midland, TX 70705 Burnett Oil Company, Inc. Kevin Freeman & Johnny Titsworth 8/5/2016 Date Date S S S S S Beginning Depth Time lime 3.5 **4** 2.5 5 Ending Depth Received by: Received by: 08/05/16 08/05/16 08/05/16 08/05/16 08/05/16 Date Sampled Time Sampled Fax No: e-mail: ield Filtered Midland, Texas 79701 Total #. of Containers k.freeman@aspengrow.us 817-332-2438 nesq@cox.net titsworth@burnettoil.com holt@aspengrow.us HNO_{3 250,mi Poh} HCI H₂SO₄ NaOH Na₂S₂O₃ None 1L Poly NaOH/ZnAc Date GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other Report Format: refusal Time Time TPH by TX 1005 8015B 8015M Project Name: × Project Loc: Project #: × × Chloride × PO#: Sample Hand Delivered by Sampler/Client Rep. ? by Courier? Temperature Upon Receipt VOCs Free of Headspace? Labels on container(s) Custody seals on container(s) Custody seals on container(s) × × × BTEX by 8021B Laboratory Comments: × Standard GISSLER B-5 Loco Hills, NM 5 C Factor ML NPDES Rush 24 48 72 (Please call) Standard

Phone: 432-686-7235

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP 1400 Rankin Hwy