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



# Analytical Report

# **Prepared for:**

Aaron Pachlhofer Fasken Oil & Ranch, Ltd. 6101 Holiday Hill Road Midland, TX 79707

Project: El Paso Federal #12 Project Number: [none] Location: Eddy CO NM

Lab Order Number: 7H24009



NELAP/TCEQ # T104704516-16-7

Report Date: 08/28/17

## Project: El Paso Federal #12 Project Number: [none] Project Manager: Aaron Pachlhofer

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Stockpile A	7H24009-01	Soil	08/23/17 08:38	08-24-2017 09:15
Stockpile B	7H24009-02	Soil	08/23/17 08:41	08-24-2017 09:15

#### Stockpile A 7H24009-01 (Soil)

		/1121	007-01 (301	.,					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmen	tal Lab, I	L <b>.P.</b>				
General Chemistry Parameters by EPA	/ Standard Method	s							
% Moisture	4.0	0.1	%	1	P7H2805	08/28/17	08/28/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	ND	26.0	mg/kg dry	1	P7H2515	08/25/17	08/25/17	TPH 8015M	
>C12-C28	142	26.0	mg/kg dry	1	P7H2515	08/25/17	08/25/17	TPH 8015M	
>C28-C35	73.1	26.0	mg/kg dry	1	P7H2515	08/25/17	08/25/17	TPH 8015M	
Surrogate: 1-Chlorooctane		115 %	70-1.	30	P7H2515	08/25/17	08/25/17	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-1.	30	P7H2515	08/25/17	08/25/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	215	26.0	mg/kg dry	1	[CALC]	08/25/17	08/25/17	calc	

Project: El Paso Federal #12 Project Number: [none] Project Manager: Aaron Pachlhofer

# Stockpile B

#### 7H24009-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Maryce	Result	Linn	Cints	Dilution	Daten	Tiepareu	7 maryzeu	Wiethou	110103
	Permi	an Basin E	Environmen	tal Lab, I	L.P.				
General Chemistry Parameters by EP	A / Standard Methods								
% Moisture	1.0	0.1	%	1	P7H2805	08/28/17	08/28/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 801	5M							
C6-C12	ND	25.3	mg/kg dry	1	P7H2515	08/25/17	08/26/17	TPH 8015M	
>C12-C28	610	25.3	mg/kg dry	1	P7H2515	08/25/17	08/26/17	TPH 8015M	
>C28-C35	380	25.3	mg/kg dry	1	P7H2515	08/25/17	08/26/17	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-13	0	P7H2515	08/25/17	08/26/17	TPH 8015M	
Surrogate: o-Terphenyl		97.7 %	70-13	0	P7H2515	08/25/17	08/26/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	990	25.3	mg/kg dry	1	[CALC]	08/25/17	08/26/17	calc	

## 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 P7H2805 - *** DEFAULT PREP ***										
Blank (P7H2805-BLK1)				Prepared &	Analyzed:	08/28/17				
% Moisture	ND	0.1	%							
Duplicate (P7H2805-DUP1)	Sourc	e: 7H23006-	02	Prepared &						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Duplicate (P7H2805-DUP2)	Sourc	e: 7H24003-	06	Prepared &	Analyzed:	08/28/17				
% Moisture	11.0	0.1	%		10.0			9.52	20	
Duplicate (P7H2805-DUP3)	Sourc	e: 7H24005-	03	Prepared &	Analyzed:	08/28/17				
% Moisture	15.0	0.1	%		14.0			6.90	20	
Duplicate (P7H2805-DUP4)	Sourc	e: 7H25004-	05	Prepared &	Analyzed:	08/28/17				
% Moisture	5.0	0.1	%		6.0			18.2	20	

# 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 P7H2515 - General Preparation (GC)										
Blank (P7H2515-BLK1)				Prepared &	Analyzed:	08/25/17				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	49.8		"	50.0		99.7	70-130			
LCS (P7H2515-BS1)				Prepared &	Analyzed:	08/25/17				
C6-C12	755	25.0	mg/kg wet	1000		75.5	75-125			
>C12-C28	958	25.0	"	1000		95.8	75-125			
Surrogate: 1-Chlorooctane	129		"	100		129	70-130			
Surrogate: o-Terphenyl	48.5		"	50.0		97.0	70-130			
LCS Dup (P7H2515-BSD1)				Prepared &	Analyzed:	08/25/17				
C6-C12	803	25.0	mg/kg wet	1000		80.3	75-125	6.22	20	
>C12-C28	972	25.0	"	1000		97.2	75-125	1.45	20	
Surrogate: 1-Chlorooctane	130		"	100		130	70-130			
Surrogate: o-Terphenyl	49.3		"	50.0		98.5	70-130			
Matrix Spike (P7H2515-MS1)	Sour	ce: 7H2400	6-04	Prepared: (	08/25/17 A	nalyzed: 08	/26/17			
C6-C12	1100	27.8	mg/kg dry	1110	21.7	97.4	75-125			
>C12-C28	1270	27.8	"	1110	276	89.5	75-125			
Surrogate: 1-Chlorooctane	137		"	111		123	70-130			
Surrogate: o-Terphenyl	68.0		"	55.6		122	70-130			
Matrix Spike Dup (P7H2515-MSD1)	Sour	Source: 7H24006-04			)8/25/17 A					
C6-C12	1100	27.8	mg/kg dry	1110	21.7	96.8	75-125	0.683	20	
>C12-C28	1290	27.8	"	1110	276	91.1	75-125	1.76	20	
Surrogate: 1-Chlorooctane	144		"	111		129	70-130			
Surrogate: o-Terphenyl	68.6		"	55.6		123	70-130			

Permian Basin Environmental Lab, L.P.

#### **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

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Report Approved By:

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.

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

8/28/2017

Date:

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OF CUSTOOY RECORD AND ANALVSS RECUEST       Private Testing Recutest													Stockpile B	Stockpile A	e: <u>Aaron Pachih</u> e <u>Fasken Oil an</u> ess: <u>6101 Holiday</u> <u>Midland, TX 7</u> 432-687-1777 ture:
Introperty Road 1213   Project Name:   El Paso Federal 12     Project Name:   Name:     Project Name:   El Paso Federal 12     Project Name:   Name:     Project Name:   Statistics     Proje	Date	Date	Date												ATO7
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Project Loc:     El Paso Federal 12       Project Loc:     Eddy County, NM       Po:     TPH: 418.1 8015M 8015B       Po:     TPH: 1006       TPH:     X Standard       TCLP     Anions (C), S04. Alkalinity)       TOTAL:     TOTAL:       Volatiles     Anions (C), S04. Alkalinity)       Time     Sarryle Containers       Laboratory Comments:     Semivolatiles       Sample Containers     BTEX 8021B/5030 or BTEX 8260       VOCs. Free of Headspace?     BTEX 8021B/5030 or BTEX 8260       Uside seals on containers     RCI       N.O.R.M.     Gilycol       Received:     Containers       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Rush TAT (Pre-Schedule) 24. 48, 72 hrs	Date	Date	Date		┝─									+	(DW=Drinking Water SL=Sludge C
Project Loc:     El Paso Federal 12       Project Loc:     Eddy County, NM       Po:     TPH: 418.1 8015M 8015B       Po:     TPH: 1006       TPH:     X Standard       TCLP     Anions (C), S04. Alkalinity)       TOTAL:     TOTAL:       Volatiles     Anions (C), S04. Alkalinity)       Time     Sarryle Containers       Laboratory Comments:     Semivolatiles       Sample Containers     BTEX 8021B/5030 or BTEX 8260       VOCs. Free of Headspace?     BTEX 8021B/5030 or BTEX 8260       Uside seals on containers     RCI       N.O.R.M.     Gilycol       Received:     Containers       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Received:     RCI       Rush TAT (Pre-Schedule) 24. 48, 72 hrs						-							ပ်	S	GW = Groundwater S=Soil/Solid
Anions (Ca, Mg, Na, K)   **   ©     Ell Paso   Federal 12     Standard   TOTAL:     Anions (Ca, SO4, Alkalinity)   TotAlkalinity     Standard   Sample Call     Standard   Semivolatiles     Semivolatiles   BTEX 8021B/5030 or BTEX 8260     BTEX 8021B/5030 or BTEX 8260   ITRRP     NO.R.M.   Glycol     Sample Hand Delivered   N.O.R.M.     Sample Client Rep   Glycol     N.O.R.M.   Glycol <td>_ف</td> <td>: 1</td> <td></td> <td>1</td> <td><u> </u></td> <td>ļ</td> <td></td> <td><u> </u></td> <td></td> <td></td> <td>-</td> <td> </td> <td><u> </u></td> <td><u> </u></td> <td>NP=Non-Potable Specify Other X</td>	_ف	: 1		1	<u> </u>	ļ		<u> </u>			-		<u> </u>	<u> </u>	NP=Non-Potable Specify Other X
Anions (Ca, Mg, Na, K)   **   ©     Ell Paso   Federal 12     Standard   TOTAL:     Anions (Ca, SO4, Alkalinity)   TotAlkalinity     Standard   Sample Call     Standard   Semivolatiles     Semivolatiles   BTEX 8021B/5030 or BTEX 8260     BTEX 8021B/5030 or BTEX 8260   ITRRP     NO.R.M.   Glycol     Sample Hand Delivered   N.O.R.M.     Sample Client Rep   Glycol     N.O.R.M.   Glycol <td><b>M</b>e</td> <td>ime</td> <td>ime</td> <td>1</td> <td><u> </u></td> <td></td> <td></td> <td> </td> <td> - </td> <td></td> <td><u> </u></td> <td> </td> <td>×</td> <td>Į×_</td> <td>11PH: 418.1 8015M 8015B</td>	<b>M</b> e	ime	ime	1	<u> </u>				-		<u> </u>		×	Į×_	11PH: 418.1 8015M 8015B
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