FASKEN OIL AND RANCH

6101 Holiday Hill Road Midland, TX 79707 (432) 687-1777 (432) 687-1570 (FAX)

NMOCD approves 1RP-4842 for closure.

November 20, 2017

Olivia Yu Environmental Specialist OCD – Hobbs District I 1625 N. French Drive Hobbs, NM 88240 **APPROVED** By Olivia Yu at 3:24 pm, Jan 26, 2018

Closure request: Ling Federal Comingled Battery, Unit letter B, Section 31, Township 19S, Range 34E,

Ms. Yu

Incident Description

On morning of October 5th, 2017 a spill was discovered at Fasken's Ling Federal Comingled Battery by Fasken personnel arriving for routine daily work. In the evening prior to the spill discovery, persons unknown put holes in the oil tanks with a firearm. According to Fasken production records, 40 barrels of crude oil were spilled. 31 barrels of crude oil were recovered. No produced water was spilled. The spill was completely contained within the firewall of the battery.

Spill Delineation

On October 6th, Fasken Environmental Coordinator Aaron Pachlhofer advanced two shallow borings with a hand auger. Three samples were collected from each boring. Following analysis of the samples collected from each boring it was determined that chlorides were no a constituent of concern (chloride sampling requested by NMOCD) and a maximum of 1 foot of soil would need to be removed from the area affected by the spilled oil. Groundwater is deeper than 100 feet structures, or other consideration are located near the battery. A workplan was submitted to Oliva Yu at NM OCD – Hobbs.

Spill Response

On October 19th, Aaron Pachlhofer directed a backhoe and a roustabout crew to remove the affected soil from within the firewall of the battery. The back hoe removed firewalls as needed to access affected soils. Hand tools were used around piping and buried objects. Soils were excavated until visual staining was greatly reduced (or no longer present) and in-situ soils were olfactorally clean. Excavated soils were stockpiled on the pad.

Following excavation, four samples were collected at the limits of the excavation (S-1 through S-4) and two samples were collected around the oil tanks where impact was the highest (S-5 and S-6). All samples were collected at the surface of the excavation. Samples S-1 through S-4 were collected approximately six inches below the original surface of the battery floor. Samples S-5 and S-6 were collected approximately one foot below the original surface of the battery floor. The samples were analyzed for BTEX and TPH. Please see the analytical summary below and the attached laboratory report. Benzene

was detected in one sample. At one foot below surface, TPH was less than 5,000 mg/kg, total BTEX was less than 4.0 mg/kg, and chlorides were less than 100 mg/kg (samples collected previously).

Following the receipt of the samples analysis, Aaron Pachlhofer directed that a work crew and a backhoe backfill the excavation and remove the stockpiled soil for disposal at an E & P waste facility. Approximately 60 yards of soil were disposed at Lea Land LLC. Please see attached waste manifests.

Sample Results

Sample results after the initial removal were:

	Benzene	Total BTEX	TPH
S-1 (N)	< 0.0215	0.4442	165
S-2 (E)	< 0.0235	0.0942	94.6
S-3 (S)	< 0.0211	< 0.0211	337
S-4 (W)	< 0.0233	< 0.0233	512
S-5	< 0.0217	5.0543	4350
S-6	0.79	28.29	4880

Please note all results in mg/kg. See attached lab reports.

Conclusions

- 1. The area affected by the spill was excavated below 5,000 mg/kg as required by the workplan submitted to NM OCD.
- 2. No waste remains onsite.
- 3. The excavation has been backfilled.

Recommendations

Fasken recommends no further action for this spill.

If there are any questions or comments, please do not hesitate to contact Aaron Pachlhofer at the letterhead address or 432-687-1777 or aaronp@forl.com.

Thank You,

Aaron Pachlhofer

Attachments: Aerial photo based site plan Photographs Laboratory Reports Waste Manifests Revised NM Form C-141 Aerial photo based site plan:



Photographs



Battery sign



10/6/17 - Spill upon arrival. Looking south-southwest



10/6/17 - Spill upon arrival. Looking south-southeast



10/6/17 - Spill upon arrival. Looking north



10/6/17 - Spill upon arrival. Looking north west



10/19/17 - Removing oily soil. Looking southwest



10/19/17 - Removing oily soil. Looking south



10/19/17 - Removing oily soil. Looking north



10/19/17 - Removing oily soil. Looking south



10/19/17 - Soil removal completed. Looking south



10/19/17 - Soil removal completed. Looking southeast



10/19/17 - Soil removal completed. Looking south



11/7/17 - Excavation backfilled. Looking southwest



11/7/17 - Excavation backfilled. Looking north-northwest



11/7/17 - Excavation backfilled. Looking northwest

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: Ling Federal Project Number: [none] Location: Lea CO

Lab Order Number: 7J20003



NELAP/TCEQ # T104704516-16-7

Report Date: 10/26/17

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

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 (N)	7J20003-01	Soil	10/19/17 15:20	10-20-2017 10:15
S-2 (E)	7J20003-02	Soil	10/19/17 15:22	10-20-2017 10:15
S-3 (S)	7J20003-03	Soil	10/19/17 15:24	10-20-2017 10:15
S-4 (W)	7J20003-04	Soil	10/19/17 15:28	10-20-2017 10:15
S-5	7J20003-05	Soil	10/19/17 15:35	10-20-2017 10:15
S-6	7J20003-06	Soil	10/19/17 15:40	10-20-2017 10:15

S-1 (N)

7J20003-01 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ıtal Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.0215	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Toluene	0.102	0.0430	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Ethylbenzene	0.0942	0.0215	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (p/m)	0.160	0.0430	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (o)	0.0880	0.0215	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		110 %	75-1	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		114 %	75-1	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
General Chemistry Parameters by EP.	A / Standard Method	S							
% Moisture	7.0	0.1	%	1	P7J2305	10/23/17	10/23/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	26.9	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
>C12-C28	128	26.9	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
>C28-C35	37.5	26.9	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
Surrogate: 1-Chlorooctane		95.5 %	70-1	30	P7J2013	10/20/17	10/20/17	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-1	30	P7J2013	10/20/17	10/20/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	165	26.9	mg/kg dry	1	[CALC]	10/20/17	10/20/17	calc	

S-2 (E)

7J20003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	nvironmer	ital Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.0235	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Toluene	ND	0.0471	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Ethylbenzene	ND	0.0235	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (p/m)	0.0518	0.0471	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (o)	0.0424	0.0235	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.4 %	75-1	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.0 %	75-1	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	5							
% Moisture	15.0	0.1	%	1	P7J2305	10/23/17	10/23/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 80 1	15M							
C6-C12	ND	29.4	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
>C12-C28	94.6	29.4	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P7J2013	10/20/17	10/20/17	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1	30	P7J2013	10/20/17	10/20/17	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-1	30	P7J2013	10/20/17	10/20/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	94.6	29.4	mg/kg dry	1	[CALC]	10/20/17	10/20/17	calc	

S-3 (S)

7J20003-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.0211	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Toluene	ND	0.0421	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Ethylbenzene	ND	0.0211	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (p/m)	ND	0.0421	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (o)	ND	0.0211	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1.	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	75-1.	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
General Chemistry Parameters by EPA	<u>/ Standard Methods</u>	<u>s</u>							
% Moisture	5.0	0.1	%	1	P7J2305	10/23/17	10/23/17	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 801	<u>15M</u>							
C6-C12	28.9	26.3	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
>C12-C28	270	26.3	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
>C28-C35	38.5	26.3	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1.	30	P7J2013	10/20/17	10/21/17	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-1.	30	P7J2013	10/20/17	10/21/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	337	26.3	mg/kg dry	1	[CALC]	10/20/17	10/21/17	calc	

S-4 (W)

7J20003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	tal Lab, I	P.				
Organics by GC									
Benzene	ND	0.0233	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Toluene	ND	0.0465	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Ethylbenzene	ND	0.0233	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (p/m)	ND	0.0465	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Xylene (o)	ND	0.0233	mg/kg dry	20	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.1 %	75-1.	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.5 %	75-1.	25	P7J2312	10/23/17	10/24/17	EPA 8021B	
General Chemistry Parameters by EPA / S	<u>Standard Meth</u> od	<u>s</u>							
% Moisture	14.0	0.1	%	1	P7J2305	10/23/17	10/23/17	ASTM D2216	
Fotal Petroleum Hydrocarbons C6-C35 by	<u>7 EPA Method 80</u>	<u>15M</u>							
C6-C12	30.7	29.1	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
>C12-C28	414	29.1	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
>C28-C35	67.0	29.1	mg/kg dry	1	P7J2013	10/20/17	10/21/17	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-1.	30	P7J2013	10/20/17	10/21/17	TPH 8015M	
Surrogate: o-Terphenyl		125 %	70-1.	30	P7J2013	10/20/17	10/21/17	TPH 8015M	
fotal Petroleum Hydrocarbon C6-C35	512	29.1	mg/kg dry	1	[CALC]	10/20/17	10/21/17	calc	

S-5 7J20003-05 (Soil) Reporting Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes Permian Basin Environmental Lab, L.P. Organics by GC 20 P7J2312 EPA 8021B Benzene ND 0.0217 mg/kg dry 10/23/17 10/25/17 20 P7J2312 EPA 8021B Toluene 0.0702 mg/kg dry 0.0435 10/23/17 10/25/17 Ethylbenzene 0.0541 0.0217 mg/kg dry 20 P7J2312 10/23/17 10/25/17 EPA 8021B P7J2312 EPA 8021B 2.89 mg/kg dry 20 10/23/17 Xylene (p/m) 10/25/17 0.0435 Xylene (o) 20 P7J2312 EPA 8021B 2.04 0.0217 mg/kg dry 10/23/17 10/25/17 Surrogate: 1,4-Difluorobenzene 104 % 75-125 P7J2312 10/23/17 10/25/17 EPA 8021B EPA 8021B P7J2312 10/23/17 10/25/17 Surrogate: 4-Bromofluorobenzene 91.1 % 75-125 General Chemistry Parameters by EPA / Standard Methods % 1 P7J2305 0.1 ASTM D2216 % Moisture 8.0 10/23/17 10/23/17 Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M TPH 8015M 136 mg/kg dry 5 P7J2013 C6-C12 638 10/20/17 10/21/17 5 >C12-C28 3130 mg/kg dry P7J2013 10/20/17 TPH 8015M 136 10/21/17 mg/kg dry 5 P7J2013 TPH 8015M >C28-C35 582 136 10/20/17 10/21/17 Surrogate: 1-Chlorooctane 112 % P7J2013 10/20/17 10/21/17 TPH 8015M 70-130 Surrogate: o-Terphenyl P7J2013 10/20/17 10/21/17 TPH 8015M 117% 70-130 **Total Petroleum Hydrocarbon** 4350 136 mg/kg dry 5 [CALC] 10/20/17 10/21/17 calc

C6-C35

Permian Basin Environmental Lab, L.P.

S-6 7J20003-06 (Soil) Reporting Analyte Result Limit Units Dilution Batch Prepared Analyzed Method Notes Permian Basin Environmental Lab, L.P. Organics by GC 20 0.79 0.0217 mg/kg dry P7J2312 EPA 8021B Benzene 10/23/17 10/25/17 mg/kg dry 20 P7J2312 EPA 8021B Toluene 2.9 0.0435 10/23/17 10/25/17 20 P7J2312 EPA 8021B mg/kg dry Ethylbenzene 8.1 0.0217 10/23/17 10/25/17 10.0 mg/kg dry 20 P7J2312 EPA 8021B Xylene (p/m) 0.0435 10/23/17 10/25/17 mg/kg dry 20 P7J2312 EPA 8021B 6.5 0.0217 10/23/17 Xylene (o) 10/25/17 Surrogate: 4-Bromofluorobenzene 83.9% 75-125 P7J2312 10/23/17 10/25/17 EPA 8021B P7J2312 10/23/17 10/25/17 EPA 8021B Surrogate: 1,4-Difluorobenzene 102 % 75-125 **General Chemistry Parameters by EPA / Standard Methods** P7J2305 % Moisture 10.0 0.1 % 1 10/23/17 ASTM D2216 10/23/17 Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M mg/kg dry 5 P7J2013 TPH 8015M C6-C12 510 139 10/20/17 10/21/17 TPH 8015M 5 P7J2013 mg/kg dry >C12-C28 3910 139 10/20/17 10/21/17 >C28-C35 mg/kg dry 5 P7J2013 TPH 8015M 460 139 10/20/17 10/21/17 Surrogate: 1-Chlorooctane 123 % 70-130 P7J2013 10/20/17 10/21/17 TPH 8015M Surrogate: o-Terphenyl 103 % 70-130 P7J2013 10/20/17 10/21/17 TPH 8015M 5 **Total Petroleum Hydrocarbon** 4880 139 mg/kg dry [CALC] 10/20/17 10/21/17 calc

C6-C35

Permian Basin Environmental Lab, L.P.

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Anaryte	Kesuit	Limit	Units	Levei	Kesulí	%KEU	Limits	KPD	Limit	inotes
Batch P7J2312 - General Preparation (GC)										
Blank (P7J2312-BLK1)				Prepared: 1	0/23/17 At	nalyzed: 10	/24/17			
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	0.0551		"	0.0600		91.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.0585		"	0.0600		97.5	75-125			
LCS (P7J2312-BS1)				Prepared: 1	0/23/17 At	nalyzed: 10	/24/17			
Benzene	0.109	0.00100	mg/kg wet				70-130			
Toluene	0.102	0.00200	"				70-130			
Ethylbenzene	0.117	0.00100	"				70-130			
Xylene (p/m)	0.196	0.00200	"				70-130			
Xylene (o)	0.113	0.00100	"				70-130			
Surrogate: 4-Bromofluorobenzene	0.0663		"	0.0600		110	75-125			
Surrogate: 1,4-Difluorobenzene	0.0628		"	0.0600		105	75-125			
LCS Dup (P7J2312-BSD1)				Prepared: 1	0/23/17 At	nalyzed: 10	/24/17			
Benzene	0.104	0.00100	mg/kg wet				70-130		20	
Toluene	0.0996	0.00200	"				70-130		20	
Ethylbenzene	0.109	0.00100	"				70-130		20	
Xylene (p/m)	0.218	0.00200	"				70-130		20	
Xylene (o)	0.104	0.00100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	0.0655		"	0.0600		109	75-125			
Surrogate: 4-Bromofluorobenzene	0.0661		"	0.0600		110	75-125			
Calibration Blank (P7J2312-CCB1)				Prepared: 1	0/23/17 At	nalyzed: 10	/24/17			
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0619		"	0.0600		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.0618		"	0.0600		103	75-125			

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
Batch P7J2312 - General Preparation (GC)										
Calibration Blank (P7J2312-CCB2)				Prepared: 1	0/23/17 An	nalyzed: 10	/24/17			
Benzene	0.00		mg/kg wet	*		•				
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.830		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0505		"	0.0600		84.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.0534		"	0.0600		89.1	75-125			
Calibration Check (P7J2312-CCV1)				Prepared: 1	0/23/17 An	nalyzed: 10	/24/17			
Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.216	0.00200	"	0.200		108	80-120			
Xylene (o)	0.111	0.00100	"	0.100		111	80-120			
Surrogate: 1,4-Difluorobenzene	0.0583		"	0.0600		97.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.0646		"	0.0600		108	75-125			
Calibration Check (P7J2312-CCV2)				Prepared: 1	0/23/17 An	nalyzed: 10	/24/17			
Benzene	0.100	0.00100	mg/kg wet	0.100		100	80-120			
Toluene	0.0921	0.00200	"	0.100		92.1	80-120			
Ethylbenzene	0.0947	0.00100	"	0.100		94.7	80-120			
Xylene (p/m)	0.198	0.00200	"	0.200		98.8	80-120			
Xylene (o)	0.0997	0.00100	"	0.100		99.7	80-120			
Surrogate: 1,4-Difluorobenzene	0.0624		"	0.0600		104	75-125			
Surrogate: 4-Bromofluorobenzene	0.0580		"	0.0600		96.6	75-125			
Calibration Check (P7J2312-CCV3)				Prepared: 1	0/23/17 An	nalyzed: 10)/24/17			
Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.0964	0.00200	"	0.100		96.4	80-120			
Ethylbenzene	0.100	0.00100	"	0.100		100	80-120			
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 1,4-Difluorobenzene	0.0633		"	0.0600		106	75-125			
Surrogate: 4-Bromofluorobenzene	0.0607		"	0.0600		101	75-125			

Permian Basin Environmental Lab, L.P.

Organics by GC - 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 P7J2312 - General Preparation (GC)										

Matrix Spike (P7J2312-MS1)	Sour	ce: 7J23003	-05	Prepared:	10/23/17 An	alyzed: 10	/24/17		
Benzene	0.0887	0.00110	mg/kg dry		0.000967		80-120		
Toluene	0.0880	0.00220	"		ND		80-120		
Ethylbenzene	0.104	0.00110	"		0.00355		80-120		
Xylene (p/m)	0.200	0.00220	"		0.00754		80-120		
Xylene (o)	0.0891	0.00110			ND		80-120		
Surrogate: 4-Bromofluorobenzene	0.0705		"	0.0659		107	75-125		
Surrogate: 1,4-Difluorobenzene	0.0684		"	0.0659		104	75-125		
Matrix Spike Dup (P7J2312-MSD1)	Sour	ce: 7J23003	-05	Prepared:	10/23/17 An	alyzed: 10)/24/17		
Benzene	0.0936	0.00110	mg/kg dry		0.000967		80-120	20	
Toluene	0.0884	0.00220			ND		80-120	20	
Ethylbenzene	0.114	0.00110	"		0.00355		80-120	20	
Xylene (p/m)	0.208	0.00220	"		0.00754		80-120	20	
Xylene (o)	0.0926	0.00110	"		ND		80-120	20	
Surrogate: 1,4-Difluorobenzene	0.0704		"	0.0659		107	75-125		
Surrogate: 4-Bromofluorobenzene	0.0740		"	0.0659		112	75-125		

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 P7J2305 - *** DEFAULT PREP ***										
Blank (P7J2305-BLK1)				Prepared &	Analyzed:	10/23/17				
% Moisture	ND	0.1	%							
Duplicate (P7J2305-DUP1)	Sour	ce: 7J19010-0	2	Prepared &	Analyzed:	10/23/17				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P7J2305-DUP2)	Sour	ce: 7J19017-0	7	Prepared &	Analyzed:	10/23/17				
% Moisture	10.0	0.1	%		9.0			10.5	20	
Duplicate (P7J2305-DUP3)	Source: 7J20002-05 Prepared & Analyzed: 10/23/					10/23/17				
% Moisture	16.0	0.1	%		15.0			6.45	20	
Duplicate (P7J2305-DUP4)	Sour	ce: 7J20004-2	Prepared & Analyzed: 10/23/17							
% Moisture	12.0	0.1	%			0.00	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 P7J2013 - General Preparation (GC)										
Blank (P7J2013-BLK1)				Prepared &	Analyzed:	10/20/17				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	59.1		"	50.0		118	70-130			
LCS (P7J2013-BS1)				Prepared &	Analyzed:	10/20/17				
C6-C12	883	25.0	mg/kg wet	1000		88.3	75-125			
>C12-C28	873	25.0	"	1000		87.3	75-125			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	59.3		"	50.0		119	70-130			
LCS Dup (P7J2013-BSD1)				Prepared &	Analyzed:	10/20/17				
C6-C12	880	25.0	mg/kg wet	1000		88.0	75-125	0.314	20	
>C12-C28	877	25.0	"	1000		87.7	75-125	0.436	20	
Surrogate: 1-Chlorooctane	119		"	100		119	70-130			
Surrogate: o-Terphenyl	53.0		"	50.0		106	70-130			
Calibration Blank (P7J2013-CCB1)				Prepared &	Analyzed:	10/20/17				
C6-C12	13.6		mg/kg wet							
>C12-C28	20.0		"							
Surrogate: 1-Chlorooctane	96.6		"	100		96.6	70-130			
Surrogate: o-Terphenyl	54.7		"	50.0		109	70-130			
Calibration Blank (P7J2013-CCB2)				Prepared: 1	0/20/17 Ai	nalyzed: 10	/21/17			
C6-C12	12.6		mg/kg wet							
>C12-C28	21.8		"							
Surrogate: 1-Chlorooctane	98.5		"	100		98.5	70-130			
Surrogate: o-Terphenyl	57.2		"	50.0		114	70-130			

Permian Basin Environmental Lab, L.P.

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting	TT :	Spike	Source	0/DEC	%REC	DDD	RPD	N. (
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P7J2013 - General Preparation (GC)										
Calibration Check (P7J2013-CCV1)				Prepared &	Analyzed:	10/20/17				
C6-C12	558	25.0	mg/kg wet	500		112	85-115			
>C12-C28	522	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	60.8		"	50.0		122	70-130			
Calibration Check (P7J2013-CCV2)				Prepared:	10/20/17 A	nalyzed: 10	/21/17			
C6-C12	565	25.0	mg/kg wet	500		113	85-115			
>C12-C28	542	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	119		"	100		119	70-130			
Surrogate: o-Terphenyl	60.1		"	50.0		120	70-130			
Calibration Check (P7J2013-CCV3)				Prepared:	10/20/17 A	nalyzed: 10	/21/17			
C6-C12	565	25.0	mg/kg wet	500		113	85-115			
>C12-C28	562	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	121		"	100		121	70-130			
Surrogate: o-Terphenyl	60.6		"	50.0		121	70-130			
Matrix Spike (P7J2013-MS1)	Sou	rce: 7J20004	-06	Prepared:	10/20/17 A	nalyzed: 10	/23/17			
C6-C12	1120	28.4	mg/kg dry	1140	16.8	97.5	75-125			
>C12-C28	1870	28.4	"	1140	622	110	75-125			
Surrogate: 1-Chlorooctane	148		"	114		130	70-130			
Surrogate: o-Terphenyl	67.7		"	56.8		119	70-130			
Matrix Spike Dup (P7J2013-MSD1)	Sou	rce: 7J20004	-06	Prepared:	10/20/17 A	nalyzed: 10	/23/17			
C6-C12	1140	28.4	mg/kg dry	1140	16.8	99.0	75-125	1.59	20	
>C12-C28	2150	28.4	"	1140	622	134	75-125	19.8	20	QM-0
Surrogate: 1-Chlorooctane	141		"	114		124	70-130			
Surrogate: o-Terphenyl	73.4		"	56.8		129	70-130			

Permian Basin Environmental Lab, L.P.

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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:

Bun Barron

10/26/2017

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.

Date:



	LEA LAND DI MILE MARKER #64 US HWY						XIC	0			
	1300 WEST MAIN S		ND, LLC IA CITY, OK 73106 • 1	PHONE (405) :	236-425		C				
NO	N-HAZARDOUS WASTE MANIF	EST NO	119946	1. PAGE	_OF	2. TRAII	LER NO.	858			
° ⊡″ G ∰	3. COMPANY NAME Fasken Oil & Ranch LTO	4. ADDRESS 303 W. Wall S	t Suite 1800	an dan sering ang baryak Tang tang tang tang tang tang tang tang t	5. PIC	K-UP DATE 1 9/2017	205.				
	PHONE NO.	CITY	STATE	ZIP		RCC I.D. NC	9 •	,,			
E	432-8871777 7. NAME OR DESCRIPTION OF WASTE SHIPPE		innen and TX , second and and	78701 8. CONTAIN		9. TOTAL	10. UNIT	11. TEXAS			
			in indenent för i Docimier och en mer har	No. J Ty	. 1	UANTITY	Wt/Vol.	WASTE ID #			
	b.		ation in an								
Е	c.										
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R	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13	3. WASTE P	DOFILE N				
- ******* A					1.	. WASIEP.	KUFILE N	J.			
			ENCY OR SPIL	L, CONTA	CT						
T	DE ONTIVEROS	575-587-4048	katir t Noting			24-HOUR	EMERGE	NCY NO.			
o	15.GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by prop shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LL										
R	PRINTED/TYPED NAME		SIGNATURE					DATE			
Т	16. TRANSPORTER (1)		17.	TRANS	SPOR	FER (2)					
R A	NAME:		NAME:								
N S	TEXAS I.D. NO.	RODRIGUEZ	TEXAS I.D. NO.								
P O	IN CASE OF EMERGENCY CONTACT:	393-3180	IN CASE OF EME	RGENCY CON	ONTACT:						
R T	EMERGENCY PHONE: 18. TRANSPORTER (1): Acknowledgment o	Manager (19.)		EMERGENCY PHONE: 19. TRANSPORTER (2): Acknowledgment of receipt of material							
E R	PRINTED/TYPED NAME Febre R A	hllon	PRINTED/TYPED	NAME		-					
S	SIGNATUR the R Fortellon	DATE	2047 SIGNATURE			D	ATE				
		ADDRESS:				PHONE:					
DF	Lea Land, LLC		Marker 64, U.S	•			575-887	7-4048			
I A S C	PERMIT NO.	Miles East of Carlsbad, NM 20. COMMENTS									
ΡĨ ΟL	WM-01-035 - New Mex	ico	ι								
S I A T	21.DISPOSAL FACILITY'S CERTIFICA facility is authorized and permitted to receive such w	ATION: I Hereby c astes.	ertify that the above de	escribed wastes	were de	livered to thi	s facility, th	hat the			
LY		U R	and CELISNO Succession	likirishe usin ara-	AT TO/ 4	9/2017	• TIM	Gg [≞]			
GENER	ENERATOR: COPIES 1 & 6 COPY 1 TRANSPORTERS: COPIES 4 & 5										

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e.	LEA LAND DIS MILE MARKER #64 US HW						CO				
	1300 WEST MAIN S		ND, LLC 14 CITY, OK 73106 • 1	PHONE (405) 2	236-4257	CI					
NO	N-HAZARDOUS WASTE MANII	FEST NO	119948	1. PAGE	_OF 2. TR	AILER NO.	858				
G	3. COMPANY NAME Fasken Oil & Ranch LTD	4. ADDRESS 303 W. Wall S	t-Suite-1800	z. r. j. 19. stydrog, en	5. PICK-UP D	ATE 7					
	PHONE NO.	CITY	STATE	ZIP	6. TNRCC I.D.						
Ē	432-6871777		n Marine TX e and sympos	79701 8. CONTAIN							
N	7. NAME OR DESCRIPTION OF WASTE SHIPP			No. Ty	pe QUANTI		11. TEXAS WASTE ID #				
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Е	с.										
R	25,420 29,440										
	12. COMMENTS OR SPECIAL INSTRUCTIONS: LING: FEDERAL BATTERY (13. WASTE PROFILE NO.										
A	14		<u>P 55,3(</u>				-				
T	14. IN CASE OF EMERGENCY OR SPILL, CONTACT NOE ONTIVEROS 24-HOUR EMERGENCY NO.										
0	15. GENERATOR'S CERTIFICATION: shipping name and are classified, packed, marked, ar international and national government regulations, in	id labeled, and are in a	ll respects in proper cor	idition for trans	nort by highway	according to a	nnlicable				
R	PRINTED/TYPED NAME		SIGNATURE		, <u>, , , , , , , , , , , , , , , , , , </u>		DATE				
T R	16. TRANSPORTER (1)		17. TRANSPORTER (2) NAME:								
A N	NAME:										
S P		RODRIGUEZ	TEXAS I.D. NO.								
Ô R	1.7.888××(4.77.5) 393-3480	EMERGENCY PHONE:								
Т	18. TRANSPORTER (1): Acknowledgment of	of receipt of material	19. TRANSPORTER (2): Acknowledgment of receipt of material								
E R	PRINTED/TYPED NAME FCILL R	Intillon	PRINTED/TYPED	NAME			<i></i>				
S	SIGNATURE Alei R anter	DATE	SIGNATURE			DATE					
		ADDRESS:			PHON	E:					
DF	Lea Land, LLC		Marker 64, U.S files East of Car	-	· · ·	575-88′	7-4048				
I A S C	PERMIT NO.	20. COMMENTS	LISUAU, INIV	L [
PI OL	WM-01-035 - New Mexico										
S I A T	21. DISPOSAL FACILITY'S CERTIFIC facility is authorized and permitted to receive such w	ATION: I Hereby c astes.	ertify that the above de	scribed wastes	were delivered to	this facility, th	hat the				
LY	AUTHORIZED SIGNATURE	V1#,	or CELL NO.	ere està est D	at 10/20/201 7	in tim	. ^E 25				
GENERA	TOR: COPIES 1 & 6	DISPOSAL SITE		Factor and the second se	TRAN	SPORTERS: C	OPIES 4 & 5				

	LEA LAND DISPOSA MILE MARKER #64 US HWY 62/180 • 30 MILE					XIC	0		
	LEA L. 1300 WEST MAIN STREET • OKLAHO	AND, LLC MA CITY, OK 73106 •	PHONE ((405) 236-4	1257 G (
NO	NO N	119949	1. PA	GEOF	2. TRAII	ER NO	7385		
Ğ	3. COMPANY NAME 4. ADDRESS Fasken Oil & Ranch LTD 303 W Wall	St Suite 1800	- Alfreder		PICK-UP DATE 10/20/2017				
	PHONE NO.	STATE			FNRCC I.D. NC				
Ē	432-6871777 7. NAME OR DESCRIPTION OF WASTE SHIPPED:	teri di denombra de la A lfreda d'Alfreda de la seconda de		701	7	10. UNIT	11. TEXAS		
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R	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE P				
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T	MOE ONTIVEROS	and the second se			24-HOUR	EMERGEI	NCY NO.		
0	15.GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC								
R	PRINTED/TYPED NAME	SIGNATURE					DATE		
T	16. TRANSPORTER (1)	17.	Tŀ	RANSPO	RTER (2)				
A	NAME:	NAME:							
N S	TEXAS I.D. NO.								
P O	IN CASE OF EMERGENCY CONTACT: (575) 393-3180 EMERGENCY PHONE:	IN CASE OF EME EMERGENCY PH		Y CONTAC	CT:				
R T	18. TRANSPORTER (1): Acknowledgment of receipt of materia			(2): Ackno	wledgment of r	eccipt of m	aterial		
E R	PRINTED/TYPED NAVEL JOSE NULL	PRINTED/TYPED	NAME						
S	SIGNATURE DATE	SIGNATURE			D	ATE			
	ADDRESS:				PHONE:				
DF		le Marker 64, U. Miles East of Ca			0,	575-88	7-4048		
IA SC PI	PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS		,					
Ă T	21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby facility is authorized and permitted to receive such wastes.						hat the		
LY	AUTYORIZED SIGNATURE	M HIGEELING	niesjer (dateres	n an DAT	0/20/2017	B	1≣ 50 <		
GENER	TOR: COPIES 1 & 6 DISPOSAL SI	TE: COPIES 2 & 3			TRANSPO	ORTERS: C	COPIES 4 & 5		

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 8	7505							
Release I	Notification and	Corrective A	ction						
	OPER	ATOR	[]] Initia	al Report 🛛 Fin	al Repor				
Name of Company: Fasken Oil and Ranch, Ltd	Contact:	Contact: Aaron Pachlhofer							
Address: 6101 Holiday Hill Road, Midland, TX, 7	9707 Telephor	Telephone No.: 432-687-1777							
Facility Name: Ling Federal Tank Battery (Coming	gled) Facility 7	ype: Tank Battery	7						
Surface Owner: Larry Hughes N	fineral Owner: BLM		API No	· N/A					
			111110						
Unit Letter Section Township Range Feet fr	LOCATION OF R		East/West Line	Country					
B 31 19S 34E		reet from the	East west Line	County LEA					
Latitude	e <u>32.622030°</u> Longi	ude103.59746	0°		······				
	NATURE OF RE	LEASE							
Type of Release: Crude Oil		of Release 40		tecovered 31					
Source of Release: Tanks		Hour of Occurrenc inknown time		Hour of Discovery 10/5	5/17,				
Was Immediate Notice Given?		To Whom?	8:30 a.m.						
Yes 🗌 No 🗌		<u>Oliva Yu</u>							
By Whom? Aaron Pachlhofer	Date an	Hour: 10/5/17, ~2:	30 p.m. CST						
Was a Watercourse Reached?	If YES,	olume Impacting t	he Watercourse.						
				· · · · · · · · · · · · · · · · · · ·	······				
If a Watercourse was Impacted, Describe Fully.*	Δ	PROVEL							
N/A									
		Olivia Yu	at 3:16 pm	, Jan 26, 2018	3				
Describe Cause of Problem and Remedial Action Taken.	*								
Spill resulted from vandalism by gunfire. Free oil rer									
Describe Area Affected and Cleanup Action Taken.*									
Affected area fully contained within firewall of battery.	Affected soils removed to b	low 5,000 mg/kg T	PH and disposed a	Lea Land Disposal.					
I hereby certify that the information given above is true a	ind complete to the best of r	y knowledge and u	nderstand that purs	uant to NMOCD rules a	and				
regulations all operators are required to report and/or file	certain release notifications	and perform correct	tive actions for rele	ases which may endang	ger				
public health or the environment. The acceptance of a C- should their operations have failed to adequately investig	ate and remediate contamin	tion that nose a three	eport does not reli	eve the operator of hab	llify health				
or the environment. In addition, NMOCD acceptance of	a Ø-141 report does not rel	we the operator of r	esponsibility for co	mpliance with any othe	er				
federal, state, or local laws and/or regulations.	/								
		<u>OIL CONS</u>	SERVATION	DIVISION					
Signature:			79	1					
Printed Name: Aaron Pachlhofer, P.G.	Approved	y Environmental Sr	pecialist:	ſ					
Title: Environmental Coordinator	Approval I	ate: 1/26/2018	8 Expiration I	Date: XX/XX/XXXX					
E-mail Address: aaronp@forl.com	Conditions	of Approval:		Attached					
1									
Date: 11/15/17 Phone: 432-687-1777									

1RP-4842