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1RP 3674

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



Analytical Report

Prepared for:

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> Project: State 20 Release Project Number: 584-6106-000 Location: Jal, NM

Lab Order Number: 6E02003



NELAP/TCEQ # T104704156-13-3

Report Date: 05/12/16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP1	6E02003-01	Soil	04/18/16 10:00	05-02-2016 11:47
SP2	6E02003-02	Soil	04/18/16 10:03	05-02-2016 11:47
SP3	6E02003-03	Soil	04/18/16 10:06	05-02-2016 11:47
SP4	6E02003-04	Soil	04/28/16 16:15	05-02-2016 11:47
SP5	6E02003-05	Soil	04/28/16 16:17	05-02-2016 11:47
SP6	6E02003-06	Soil	04/28/16 16:19	05-02-2016 11:47
SP7	6E02003-07	Soil	04/28/16 16:21	05-02-2016 11:47
SP8	6E02003-08	Soil	04/18/16 10:21	05-02-2016 11:47
SP9	6E02003-09	Soil	04/28/16 16:25	05-02-2016 11:47
SP10	6E02003-10	Soil	04/28/16 16:27	05-02-2016 11:47
SP11	6E02003-11	Soil	04/28/16 16:30	05-02-2016 11:47
SP12	6E02003-12	Soil	04/28/16 16:33	05-02-2016 11:47
SP13	6E02003-13	Soil	04/28/16 16:36	05-02-2016 11:47
SP14	6E02003-14	Soil	04/18/16 10:39	05-02-2016 11:47

SP1

6E02003-01 (Soil) Reporting Units Dilution Batch Prepared Analyzed Method Notes Analyte Result Limit Permian Basin Environmental Lab, L.P. Organics by GC ND EPA 8021B Benzene 0.00101 mg/kg dry 1 P6E0505 05/02/16 05/02/16 Toluene ND 0.00202 mg/kg dry 1 P6E0505 05/02/16 05/02/16 EPA 8021B Ethylbenzene ND 0.00101 mg/kg dry 1 P6E0505 05/02/16 05/02/16 EPA 8021B mg/kg dry 1 P6E0505 05/02/16 EPA 8021B Xylene (p/m) ND 0.00202 05/02/16 ND 0.00101 mg/kg dry 1 P6E0505 05/02/16 EPA 8021B Xylene (o) 05/02/16 05/02/16 05/02/16 EPA 8021B Surrogate: 4-Bromofluorobenzene 103 % 75-125 P6E0505 Surrogate: 1,4-Difluorobenzene 75-125 P6E0505 05/02/16 EPA 8021B S-GC 73.4% 05/02/16 **General Chemistry Parameters by EPA / Standard Methods** % 1 P6E0205 0.1 % calculation % Moisture 1.0 05/02/16 05/03/16

SP2

6E02003-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Invironme	ntal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		101 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	S							
% Moisture	1.0	0.1	%	1	P6E0205	05/02/16	05/03/16	% calculation	

SP3

6E02003-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmer	ntal Lab,	L.P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	0.00216	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		106 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		79.2 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by E	PA / Standard Methods								
% Moisture	ND	0.1	%	1	P6E0205	05/02/16	05/03/16	% calculation	

SP4

6E02003-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	nvironmen	ital Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		109 %	75-1.	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.5 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	ls							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	60.9	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2930	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	281	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		131 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	S-GC
Surrogate: o-Terphenyl		95.6 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	3270	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP5

6E02003-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin E	Invironmen	ital Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	75-1.	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.0 %	75-1.	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EP.	A / Standard Method	ls							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	44.6	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2350	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	214	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		73.5 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	2610	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP6

6E02003-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironmen	ital Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.8 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	75-1.	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Method	S							
% Moisture	1.0	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	36.1	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2290	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	198	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		83.1 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	2520	25.3	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP7

6E02003-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		150 %	75-12	25	P6E0505	05/02/16	05/02/16	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		78.9 %	75-12	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EP.	A / Standard Method	s							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	38.1	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2470	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	215	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		51.4 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	2720	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP8

6E02003-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	Environme	ntal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.5 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Methods	5							
% Moisture	1.0	0.1	%	1	P6E0205	05/02/16	05/03/16	% calculation	

SP9

6E02003-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	nvironmen	tal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		113 %	75-12	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		108 %	75-12	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
General Chemistry Parameters by EPA	A / Standard Method	s							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	38.6	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2640	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	271	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		78.6 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	2950	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP10

6E02003-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Environmen	ital Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Toluene	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		112 %	75-1.	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-1	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
General Chemistry Parameters by EPA	A / Standard Method	s							
% Moisture	1.0	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	50.6	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2660	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	280	25.3	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		98.1 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		81.0 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	2990	25.3	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP11

6E02003-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	nvironmer	ıtal Lab, l	L .P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.6 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		114 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EPA	/ Standard Method	s							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C35	5 by EPA Method 80	15M							
C6-C12	53.8	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2550	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	276	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		92.2 %	70-1	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		97.1 %	70-1	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	2880	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP12

6E02003-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Invironmen	ital Lab, I	L .P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.8 %	75-1	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	75-1	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
General Chemistry Parameters by EPA	A / Standard Method	s							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	49.4	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	2740	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	277	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		99.4 %	70-1	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		76.3 %	70-1	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	3060	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP13

6E02003-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin F	Cnvironmen	ital Lab, l	P.				
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	75-1	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.2 %	75-1.	25	P6E0505	05/02/16	05/03/16	EPA 8021B	
General Chemistry Parameters by EPA	A / Standard Method	ls							
% Moisture	ND	0.1	%	1	P6E0406	05/04/16	05/04/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	39.6	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C12-C28	1190	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
>C28-C35	110	25.0	mg/kg dry	1	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: 1-Chlorooctane		88.3 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Surrogate: o-Terphenyl		44.6 %	70-1.	30	P6E0403	05/02/16	05/03/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1340	25.0	mg/kg dry	1	[CALC]	05/02/16	05/03/16	calc	

SP14

6E02003-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ntal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Toluene	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.8 %	75-1	25	P6E0505	05/02/16	05/02/16	EPA 8021B	
General Chemistry Parameters by EP	A / Standard Methods	8							
% Moisture	1.0	0.1	%	1	P6E0205	05/02/16	05/03/16	% calculation	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

		Reporting		Spike	Source	0/F =	%REC	D.F	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P6E0505 - General Preparation (GC)										
Blank (P6E0505-BLK1)				Prepared &	Analyzed:	05/02/16				
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	0.0574		"	0.0600		95.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.0621		"	0.0600		103	75-125			
LCS (P6E0505-BS1)				Prepared &	Analyzed:	05/02/16				
Benzene	0.102	0.00100	mg/kg wet	0.100		102	70-130			
Toluene	0.0984	0.00200	"	0.100		98.4	70-130			
Ethylbenzene	0.113	0.00100	"	0.100		113	70-130			
Xylene (p/m)	0.199	0.00200	"	0.200		99.3	70-130			
Xylene (o)	0.0978	0.00100	"	0.100		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.0605		"	0.0600		101	75-125			
Surrogate: 1,4-Difluorobenzene	0.0610		"	0.0600		102	75-125			
LCS Dup (P6E0505-BSD1)				Prepared &	Analyzed:	05/02/16				
Benzene	0.0922	0.00100	mg/kg wet	0.100		92.2	70-130	9.85	20	
Toluene	0.0968	0.00200	"	0.100		96.8	70-130	1.57	20	
Ethylbenzene	0.109	0.00100	"	0.100		109	70-130	2.76	20	
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130	2.92	20	
Xylene (o)	0.101	0.00100		0.100		101	70-130	3.73	20	
Surrogate: 4-Bromofluorobenzene	0.0668		"	0.0600		111	75-125			
Surrogate: 1,4-Difluorobenzene	0.0615		"	0.0600		103	75-125			
Matrix Spike (P6E0505-MS1)	Sou	ırce: 6E02003	-13	Prepared: 0	5/02/16 A	nalyzed: 05	03/16			
Benzene	0.0711	0.00100	mg/kg dry	0.100	ND	71.1	80-120			QM-0
Toluene	0.0640	0.00200	"	0.100	ND	64.0	80-120			QM-0
Ethylbenzene	0.0596	0.00100	"	0.100	ND	59.6	80-120			QM-0
Xylene (p/m)	0.0950	0.00200	"	0.200	ND	47.5	80-120			QM-0
Xylene (o)	0.0506	0.00100	"	0.100	ND	50.6	80-120			QM-0
Surrogate: 4-Bromofluorobenzene	0.0629		"	0.0600		105	75-125			
Surrogate: 1,4-Difluorobenzene	0.0674		"	0.0600		112	75-125			

Permian Basin Environmental Lab, L.P.

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 P6E0505 - General Preparation (GC)

Matrix Spike Dup (P6E0505-MSD1)	Sour	ce: 6E02003	-13	Prepared: 0	5/02/16 A	nalyzed: 05	5/03/16			
Benzene	0.0440	0.00100	mg/kg dry	0.100	ND	44.0	80-120	47.0	20	QM-07
Toluene	0.0383	0.00200	"	0.100	ND	38.3	80-120	50.2	20	QM-07
Ethylbenzene	0.0287	0.00100	"	0.100	ND	28.7	80-120	70.1	20	QM-07
Xylene (p/m)	0.0503	0.00200		0.200	ND	25.1	80-120	61.5	20	QM-07
Xylene (o)	0.0402	0.00100	"	0.100	ND	40.2	80-120	23.0	20	QM-07
Surrogate: 1,4-Difluorobenzene	0.0677		"	0.0600		113	75-125			
Surrogate: 4-Bromofluorobenzene	0.0537		"	0.0600		89.6	75-125			

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 P6E0205 - *** DEFAULT PREP ***										
Blank (P6E0205-BLK1)				Prepared: (05/02/16 A	nalyzed: 05	/03/16			
% Moisture	ND	0.1	%							
Duplicate (P6E0205-DUP1)	Sour		01	Prepared: (05/02/16 A	nalyzed: 05	/03/16			
% Moisture	2.0	0.1	%		1.0			66.7	20	
Duplicate (P6E0205-DUP2)	Sour		03	Prepared: (05/02/16 A	nalyzed: 05	/03/16			
% Moisture	16.0	0.1	%		16.0			0.00	20	
Batch P6E0406 - *** DEFAULT PREP ***										
Blank (P6E0406-BLK1)				Prepared &	Analyzed:	05/04/16				
% Moisture	ND	0.1	%							
Duplicate (P6E0406-DUP1)	Sour	-ce: 6D28009-	05	Prepared 8	Analyzed:	05/04/16				
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P6E0406-DUP2)	Sour	-ce: 6D28010-	01	Prepared &	Analyzed:	05/04/16				
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P6E0406-DUP3)	Sour	-ce: 6D28012-	04	Prepared &	Analyzed:	05/04/16				
% Moisture	10.0	0.1	%		10.0			0.00	20	
Duplicate (P6E0406-DUP4)	Sour	-ce: 6E02003-	04	Prepared &	a Analyzed:	05/04/16				
% Moisture	ND	0.1	%		ND				20	
Duplicate (P6E0406-DUP5)	Sour	·ce: 6E02003-	09	Prepared &	Analyzed:	05/04/16				
% Moisture	ND	0.1	%	-	ND				20	

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 P6E0406 - *** DEFAULT PREP ***										
Duplicate (P6E0406-DUP6)	Sou	rce: 6E02003-	13	Prepared &	Analyzed:	05/04/16				
% Moisture	ND	0.1	%		ND				20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - 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 P6E0403 - TX 1005										
Blank (P6E0403-BLK1)				Prepared: (05/02/16 A	nalyzed: 05	/03/16			
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0								
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	57.6		"	50.0		115	70-130			
LCS (P6E0403-BS1)				Prepared: (05/02/16 A	nalyzed: 05	/03/16			
C6-C12	840	25.0	mg/kg wet	1000		84.0	75-125			
>C12-C28	988	25.0	"	1000		98.8	75-125			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	50.9		"	50.0		102	70-130			
LCS Dup (P6E0403-BSD1)				Prepared: (05/02/16 A	nalyzed: 05	/03/16			
C6-C12	867	25.0	mg/kg wet	1000		86.7	75-125	3.17	20	
>C12-C28	1050	25.0	"	1000		105	75-125	6.34	20	
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	48.6		"	50.0		97.2	70-130			

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

5/12/2016

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.

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.

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



Analytical Report

Prepared for:

Tim McMinn E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa, TX 79765

> Project: State 20 Release Project Number: 584-6106-000 Location: Jal, NM

Lab Order Number: 6I02002



NELAP/TCEQ # T104704156-13-3

Report Date: 09/08/16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP3	6I02002-01	Soil	09/02/16 10:00	09-02-2016 15:30
SP4	6102002-02	Soil	09/02/16 10:03	09-02-2016 15:30
SP5	6102002-03	Soil	09/02/16 10:06	09-02-2016 15:30
SP6	6102002-04	Soil	09/02/16 10:09	09-02-2016 15:30
SP7	6102002-05	Soil	09/02/16 10:12	09-02-2016 15:30
SP9	6102002-06	Soil	09/02/16 10:15	09-02-2016 15:30
SP10	6102002-07	Soil	09/02/16 10:18	09-02-2016 15:30
SP11	6102002-08	Soil	09/02/16 10:21	09-02-2016 15:30
SP12	6102002-09	Soil	09/02/16 10:24	09-02-2016 15:30
SP13	6I02002-10	Soil	09/02/16 10:27	09-02-2016 15:30
SP14	6I02002-11	Soil	09/02/16 10:30	09-02-2016 15:30
SP15	6I02002-12	Soil	09/02/16 10:35	09-02-2016 15:30
SP16	6I02002-13	Soil	09/02/16 10:40	09-02-2016 15:30
SP17	6I02002-14	Soil	09/02/16 10:45	09-02-2016 15:30
SP18	6I02002-15	Soil	09/02/16 10:50	09-02-2016 15:30

SP3

		6102	002-01 (Soi	l)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ntal Lab, I	L.P.				
General Chemistry Parameters by EPA / S	Standard Method	s							
% Moisture	15.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 by	y EPA Method 80	15M							
C6-C12	ND	29.4	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		72.0 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		95.2 %	70-1	30	P6I0803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

SP4

6102002-02 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	nvironmer	ntal Lab. 1	L. P.				
General Chemistry Parameters by EPA /									
% Moisture	13.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		81.2 %	70-1	30	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

SP5

6102002-03 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	D	· . • •							
	Perm	ian Basin E	nvironmer	ital Lab, I	L .P.				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	16.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		81.0 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

Permian Basin Environmental Lab, L.P.

SP6

6I02002-04 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environme	ntal Lab, l	L .P.				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	14.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
<u>Total Petroleum Hydrocarbons C6-C35 b</u>	y EPA Method 80	15M							
C6-C12	ND	29.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		77.3 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		101 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

Permian Basin Environmental Lab, L.P.

SP7

6102002-05 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Down	ion Dogin E		tal Lab I	гр				
	Perm	ian Basin E	Invironmen	itai Lad, i	L.F.				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	16.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		74.8 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		102 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

Permian Basin Environmental Lab, L.P.

SP9

6I02002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Invironment	al Lab, l	L .P.				
General Chemistry Parameters by EPA	/ Standard Methods	5							
% Moisture	13.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	32.0	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		78.4 %	70-13	0	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-13	0	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	32.0	28.7	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

SP10

6102002-07 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin H	Environmer	ntal Lab, I	L .P.				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	17.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	30.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		76.9 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

Permian Basin Environmental Lab, L.P.

SP11

6102002-08 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Invironmer	ntal Lab, l	L.P.				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	13.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
<u>Total Petroleum Hydrocarbons C6-C35 b</u>	y EPA Method 80	15M							
C6-C12	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: 1-Chlorooctane		80.4 %	70-1	30	P6I0803	09/06/16	09/06/16	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-1	30	P610803	09/06/16	09/06/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	09/06/16	09/06/16	calc	

SP12

6I02002-09 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmen	tal Lab, I	L.P.				
General Chemistry Parameters by EPA	/ Standard Method	S							
% Moisture	12.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	ND	28.4	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	82.6	28.4	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		78.5 %	70-1.	30	P610703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		100 %	70-1.	30	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	82.6	28.4	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

Permian Basin Environmental Lab, L.P.

SP13

6I02002-10 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin H	Environmen	tal Lab, l	L .P.				
General Chemistry Parameters by EP	A / Standard Method	s							
% Moisture	13.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	28.7	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	96.7	28.7	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		88.6 %	70-13	0	P610703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-13	0	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	96.7	28.7	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	
SP14

6I02002-11 (Soil)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmei	ntal Lah I	L P				
	1 CI III	ian Dasin E		itai Lab, i	L.I .				
General Chemistry Parameters by EPA /	Standard Method	S							
% Moisture	14.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	29.1	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		88.8 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

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SP15

6I02002-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmer	ıtal Lab, I	L.P.				
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Toluene	ND	0.00217	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		131 %	75-125		P610603	09/02/16	09/02/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		100 %	75-1	25	P610603	09/02/16	09/02/16	EPA 8021B	
General Chemistry Parameters by EPA	A / Standard Method	ls							
% Moisture	8.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80)15M							
C6-C12	ND	27.2	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	72.3	27.2	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		81.5 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	72.3	27.2	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

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SP16

6I02002-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	11an Basin E	nvironmer	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Toluene	ND	0.00222	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		135 %	75-125		P610603	09/02/16	09/02/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		95.6 %	75-1	25	P610603	09/02/16	09/02/16	EPA 8021B	
General Chemistry Parameters by EP.	A / Standard Method	ls							
% Moisture	10.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80)15M							
C6-C12	ND	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	38.9	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		83.1 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	38.9	27.8	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

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SP17

6I02002-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	1ian Basin E	nvironmen	ıtal Lab, I	P.				
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Toluene	ND	0.00220	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (o)	ND	0.00110	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		103 %	75-1	25	P610603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		137 %	75-1	25	P610603	09/02/16	09/02/16	EPA 8021B	S-GC
General Chemistry Parameters by EPA	A / Standard Method	ls							
% Moisture	9.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 8()15M							
C6-C12	ND	27.5	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	50.9	27.5	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		80.8 %	70-1	30	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-1	30	P610703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	50.9	27.5	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

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SP18

6I02002-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin E	nvironmen	ntal Lab, I	P .				
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Toluene	ND	0.00222	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P6I0603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	75-1	25	P6I0603	09/02/16	09/02/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		146 %	75-1	25	P610603	09/02/16	09/02/16	EPA 8021B	S-GC
General Chemistry Parameters by EPA	A / Standard Method	s							
% Moisture	10.0	0.1	%	1	P6I0701	09/07/16	09/07/16	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C12-C28	119	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: 1-Chlorooctane		142 %	70-1	30	P6I0703	09/06/16	09/07/16	TPH 8015M	
Surrogate: o-Terphenyl		174 %	70-1	30	P6I0703	09/06/16	09/07/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	119	27.8	mg/kg dry	1	[CALC]	09/06/16	09/07/16	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyta	Result	Reporting	Unito	Spike Level	Source	%REC	%REC Limits	RPD	RPD Limit	Notos
Analyte	Kesult	Limit	Units	Level	Result	%KEU	Limits	KPD	Limit	Notes
Batch P6I0603 - General Preparation (G	C)									
Blank (P6I0603-BLK1)				Prepared &	Analyzed:	09/02/16				
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	0.0671		"	0.0500		134	75-125			S-G
Surrogate: 4-Bromofluorobenzene	0.0544		"	0.0500		109	75-125			
LCS (P6I0603-BS1)				Prepared &	Analyzed:	09/02/16				
Benzene	0.0907	0.00100	mg/kg wet	0.100		90.7	70-130			
Toluene	0.0922	0.00200	"	0.100		92.2	70-130			
Ethylbenzene	0.0851	0.00100	"	0.100		85.1	70-130			
Xylene (p/m)	0.158	0.00200	"	0.200		78.9	70-130			
Xylene (o)	0.0782	0.00100	"	0.100		78.2	70-130			
Surrogate: 1,4-Difluorobenzene	0.0674		"	0.0500		135	75-125			S-G
Surrogate: 4-Bromofluorobenzene	0.0452		"	0.0500		90.5	75-125			
LCS Dup (P6I0603-BSD1)				Prepared &	Analyzed:	09/02/16				
Benzene	0.0888	0.00100	mg/kg wet	0.100		88.8	70-130	2.16	20	
Toluene	0.0886	0.00200	"	0.100		88.6	70-130	3.98	20	
Ethylbenzene	0.0843	0.00100	"	0.100		84.3	70-130	0.957	20	
Xylene (p/m)	0.159	0.00200	"	0.200		79.4	70-130	0.644	20	
Xylene (o)	0.0757	0.00100	"	0.100		75.7	70-130	3.29	20	
Surrogate: 1,4-Difluorobenzene	0.0666		"	0.0500		133	75-125			S-G
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0500		86.0	75-125			
Duplicate (P6I0603-DUP1)	Sou	rce: 6101003-	-14	Prepared: 0	9/02/16 A	nalyzed: 09	0/05/16			
Benzene	1.36	0.111	mg/kg dry		1.60			16.0	20	
Toluene	17.9	0.222			18.5			3.36	20	
Ethylbenzene	19.7	0.111			21.9			10.8	20	
Xylene (p/m)	115	0.222			115			0.0821	20	
Xylene (o)	5.16	0.111			5.40			4.40	20	
Surrogate: 4-Bromofluorobenzene	0.0722		"	0.0556		130	75-125			S-G
Surrogate: 1,4-Difluorobenzene	0.0648		"	0.0556		117	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 P6I0701 - *** DEFAULT PREP ***										
Blank (P6I0701-BLK1)		Prepared & Analyzed: 09/07/16								
% Moisture	ND	0.1	%							
Duplicate (P6I0701-DUP1)	Source: 6101003-14			Prepared &	Analyzed:	09/07/16				
% Moisture	10.0	0.1	%		10.0			0.00	20	
Duplicate (P6I0701-DUP2)	Sour	ce: 6H31002-	01	Prepared &	Analyzed:	09/07/16				
% Moisture	7.0	0.1	%		8.0			13.3	20	
Duplicate (P6I0701-DUP3)	Source: 6102002-15			Prepared &	Analyzed:	09/07/16				
% Moisture	9.0	0.1	%	10.0				10.5	20	
Duplicate (P6I0701-DUP4)	Sour	ce: 6106001-0	9	Prepared & Analyzed: 09/07/16						
% Moisture	4.0	0.1	%		4.0			0.00	20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - 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 P6I0703 - TX 1005										
Blank (P6I0703-BLK1)				Prepared: (09/06/16 A	nalyzed: 09	/07/16			
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	70.8		"	100		70.8	70-130			
Surrogate: o-Terphenyl	43.2		"	50.0		86.5	70-130			
LCS (P6I0703-BS1)				Prepared: (09/06/16 A	nalyzed: 09	/07/16			
C6-C12	853	25.0	mg/kg wet	1000		85.3	75-125			
>C12-C28	802	25.0	"	1000		80.2	75-125			
Surrogate: 1-Chlorooctane	73.6		"	100		73.6	70-130			
Surrogate: o-Terphenyl	39.4		"	50.0		78.7	70-130			
LCS Dup (P610703-BSD1)				Prepared: (09/06/16 A	nalyzed: 09	/07/16			
C6-C12	901	25.0	mg/kg wet	1000		90.1	75-125	5.53	20	
>C12-C28	831	25.0	"	1000		83.1	75-125	3.60	20	
Surrogate: 1-Chlorooctane	137		"	120		114	70-130			
Surrogate: o-Terphenyl	80.3		"	60.0		134	70-130			S-G

Blank (P610803-BLK1)		Prepared & Analyzed: 09/06/16
C6-C12	ND	25.0 mg/kg wet
>C12-C28	ND	25.0 "
>C28-C35	ND	25.0 "
Surrogate: 1-Chlorooctane	38.0	" 50.0 76.1 70-130
Surrogate: o-Terphenyl	25.0	" 25.0 100 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		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch P6I0803 - TX 1005										
LCS (P610803-BS1)				Prepared &	Analyzed	: 09/06/16				
C6-C12	870	25.0	mg/kg wet	700		124	75-125			
>C12-C28	610	25.0	"	700		87.1	75-125			
Surrogate: 1-Chlorooctane	55.2		"	50.0		110	70-130			
Surrogate: o-Terphenyl	30.0		"	25.0		120	70-130			
LCS Dup (P610803-BSD1)				Prepared &	Analyzed	: 09/06/16				
C6-C12	788	25.0	mg/kg wet	700		113	75-125	9.99	20	
>C12-C28	595	25.0	"	700		85.0	75-125	2.40	20	
Surrogate: 1-Chlorooctane	59.2		"	50.0		118	70-130			
Surrogate: o-Terphenyl	30.5		"	25.0		122	70-130			
Matrix Spike (P6I0803-MS1)	Sour	ce: 6102001	-10	Prepared: ()9/06/16 A	nalyzed: 09	/07/16			
C6-C12	897	26.9	mg/kg dry	1080	ND	83.5	75-125			
>C12-C28	874	26.9		1080	ND	81.3	75-125			
Surrogate: 1-Chlorooctane	80.5		"	108		74.9	70-130			
Surrogate: o-Terphenyl	43.6		"	53.8		81.0	70-130			
Matrix Spike Dup (P6I0803-MSD1)	Sour	ce: 6102001	-10	Prepared: (09/06/16 A	nalyzed: 09	/07/16			
C6-C12	996	26.9	mg/kg dry	1080	ND	92.7	75-125	10.5	20	
>C12-C28	955	26.9		1080	ND	88.8	75-125	8.88	20	
Surrogate: 1-Chlorooctane	89.3		"	108		83.0	70-130			
Surrogate: o-Terphenyl	47.8		"	53.8		88.9	70-130			

Notes and Definitions

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

Report Approved By:

Dup Duplicate

nen Barron

Date: 9/8/2016

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.

Permian Basin Environmental Lab, L.P.

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PERMIAN BASIN ENVIRONMENTAL LAB, LP 10014 SCR 1213 Midland, TX 79706



Analytical Report

Prepared for:

Tim McMinn E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa, TX 79765

> Project: State 20 Release Project Number: 584-6106-000 Location: SOGO III

Lab Order Number: 5L11009



NELAP/TCEQ # T104704156-13-3

Report Date: 12/14/15

E Tech Environmental & Safety Solutions, Inc. 13000 West County Road 100 Odessa TX, 79765

Project: State 20 Release Project Number: 584-6106-000 Project Manager: Tim McMinn

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Stockpile 1	5L11009-01	Soil	12/09/15 13:10	12-11-2015 16:40
Stockpile 2	5L11009-02	Soil	12/09/15 13:10	12-11-2015 16:40
Stockpile 3	5L11009-03	Soil	12/09/15 13:10	12-11-2015 16:40
Stockpile 5	5L11009-04	Soil	12/09/15 13:12	12-11-2015 16:40
Stockpile 8	5L11009-05	Soil	12/09/15 13:20	12-11-2015 16:40
Stockpile 14	5L11009-06	Soil	12/09/15 13:27	12-11-2015 16:40

Stockpile 1 5L11009-01 (Soil)

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environme	ntal Lab,	L.P.				
General Chemistry Parameters by EPA	/ Standard Methods	8							
Chloride	242	1.08	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	7.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 801	5M							
C6-C12	158	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	674	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	ND	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		93.3 %	70-1	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-1	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	832	134	mg/kg dry	5	[CALC]	12/13/15	12/13/15	cale	

Stockpile 2

5L11009-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin F	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EPA /	Standard Methods								
Chloride	87.8	1.11	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	10.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
<u>Total Petroleum Hydrocarbons C6-C35 h</u>	oy EPA Method 801	5M							
C6-C12	ND	139	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	313	139	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	ND	139	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		99.4 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	313	139	mg/kg dry	5	[CALC]	12/13/15	12/13/15	calc	

Stockpile 3

5L11009-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	an Basin I	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EP	A / Standard Methods								
Chloride	129	1.08	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	7.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
Total Petroleum Hydrocarbons C6-C3	35 by EPA Method 801	5M							
C6-C12	ND	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	1080	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	143	134	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		87.6 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1220	134	mg/kg dry	5	[CALC]	12/13/15	12/13/15	calc	

Stockpile 5

5L11009-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin I	Environmen	ital Lab,	L.P.				
General Chemistry Parameters by EPA	/ Standard Methods								
Chloride	85.5	1.05	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	5.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 801	5M							
C6-C12	ND	132	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	1080	132	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	155	132	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		89.1 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1240	132	mg/kg dry	5	[CALC]	12/13/15	12/13/15	calc	

Stockpile 8

5L11009-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin H	Environmer	ıtal Lab,	L.P.				
General Chemistry Parameters by EP	A / Standard Methods	8							
Chloride	205	1.09	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	8.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	5M							
C6-C12	ND	136	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	682	136	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	ND	136	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		84.5 %	70-1	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		99.4 %	70-1	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	682	136	mg/kg dry	5	[CALC]	12/13/15	12/13/15	calc	

Stockpile 14

5L11009-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ian Basin F	Environmen	tal Lab,	L.P.				
General Chemistry Parameters by EPA	Standard Methods								
Chloride	57.6	1.04	mg/kg dry	1	P5L1406	12/14/15	12/14/15	EPA 300.0	
% Moisture	4.0	0.1	%	1	P5L1401	12/14/15	12/14/15	% calculation	
Total Petroleum Hydrocarbons C6-C35	oy EPA Method 801	5M							
C6-C12	ND	130	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C12-C28	1080	130	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
>C28-C35	142	130	mg/kg dry	5	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: 1-Chlorooctane		99.4 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-1.	30	P5L1405	12/13/15	12/13/15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1230	130	mg/kg dry	5	[CALC]	12/13/15	12/13/15	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 P5L1401 - % Solids										
Blank (P5L1401-BLK1)				Prepared &	Analyzed:	12/14/15				
% Moisture	ND	0.1	%							
Duplicate (P5L1401-DUP1)	Sou	rce: 5L11002-	04	Prepared &	Analyzed:	12/14/15				
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P5L1401-DUP2)	Sou	rce: 5L11008-	01	Prepared &	Analyzed:	12/14/15				
% Moisture	14.0	0.1	%		13.0			7.41	20	
Duplicate (P5L1401-DUP3)	Sou	rce: 5L11011-	04	Prepared &	Analyzed:	12/14/15				
% Moisture	12.0	0.1	%		12.0			0.00	20	
Batch P5L1406 - *** DEFAULT PREP ***										
Blank (P5L1406-BLK1)				Prepared &	Analyzed:	12/14/15				
Chloride	ND	1.00	mg/kg wet							
LCS (P5L1406-BS1)				Prepared &	Analyzed:	12/14/15				
Chloride	199	1.00	mg/kg wet	200		99.5	80-120			
LCS Dup (P5L1406-BSD1)				Prepared &	Analyzed:	12/14/15				
Chloride	214	1.00	mg/kg wet	200		107	80-120	7.03	20	
	5L1406-DUP1) Source: 5L11004-05				Analyzed:	12/14/15				
Duplicate (P5L1406-DUP1)	50u									
Duplicate (P5L1406-DUP1) Chloride	ND	1.12	mg/kg dry		ND				20	
	ND	1.12 rce: 5L11008-		Prepared &		12/14/15			20	

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 P5L1406 - *** DEFAULT PREP ***										
Matrix Spike Dup (P5L1406-MSD1)	Sour	rce: 5L11008-02	Prepared & Analyzed: 12/14/15							
Chloride	ND	1.00 m	g/kg dry	200	ND		80-120		20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - 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 P5L1405 - TX 1005															
Blank (P5L1405-BLK1)				Prepared: 1	2/13/15 A	nalyzed: 12	/14/15								
C6-C12	ND	25.0	mg/kg wet												
>C12-C28	ND	25.0	"												
>C28-C35	ND	25.0	"												
Surrogate: 1-Chlorooctane	99.5		"	100		99.5	70-130								
Surrogate: o-Terphenyl	56.8		"	50.0		114	70-130								
LCS (P5L1405-BS1)		Prepared: 12/13/15 Analyzed: 12/14/15													
C6-C12	942	25.0	mg/kg wet	1000		94.2	75-125								
>C12-C28	944	25.0		1000		94.4	75-125								
Surrogate: 1-Chlorooctane	124		"	100		124	70-130								
Surrogate: o-Terphenyl	56.8		"	50.0		114	70-130								
LCS Dup (P5L1405-BSD1)		Prepared: 12/13/15 Analyzed: 12/14/15													
C6-C12	870	25.0	mg/kg wet	1000		87.0	75-125	8.00	20						
>C12-C28	865	25.0		1000		86.5	75-125	8.71	20						
Surrogate: 1-Chlorooctane	117		"	100		117	70-130								
Surrogate: o-Terphenyl	52.6		"	50.0		105	70-130								

Notes and Definitions

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

	Bin Barron		
:		Date:	12/14/2015

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.

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