

July 31, 2017

VIA Email: Olivia. Yu@state.nm.us

VIA Email: Tomas.Oberding@state.nm.us

Ms. Olivia Yu Environmental Specialist New Mexico Oil Conservation Division 1625 N. French Drive Hobbs, New Mexico 88240

APPROVED

By Olivia Yu at 9:12 am, Aug 29, 2017

NMOCD approves of the remedial activities for 1RP-4664.

Re: 1RP-4664 – Revised Addendum Spill Delineation Report, Targa Midstream Services, LLC, Epperson 16" Pipeline Release Site #1, Lea County, New Mexico

Dear Ms. Yu,

Larson & Associates, Inc. (LIA) submits this revised addendum spill delineation report on behalf of Targa Midstream Services, LLC (Targa) for the Epperson 16" pipeline release Site #1 to address the response from the New Mexico Oil Conservation Division (OCD) on July 12, 2017, to address delineation and proposed remediation at SB-8 and SB-12. Attachment A presents OCD correspondence.

Question: The addendum to 1RP-4664 delineation report does not address proposed remediation nor delineation

at SB-8 and SB-12 areas as mentioned in the May 1, 2017 email?

Response:

The laboratory reported total petroleum hydrocarbons (TPH) below the analytical reporting limit (RL) in soil samples from boring SB-8. The highest chloride concentrations from boring SB-8 were reported in samples from 2 feet (1,850 mg/Kg) and 3 feet (1,440 mg/Kg) below ground surface (bgs). Boring SB-14 was drilled about 15 feet southeast of boring SB-8 and reported chloride below 250 mg/kg in soil samples collected between 5 to 25 feet bgs. This supports the chloride concentrations reported in samples from boring SB-8 are delineated both laterally and vertically. Targa will extend the excavation to include SB-8 and will excavate soil to approximately 4 feet bgs.

Boring SB-12 was drilled on the west (up gradient) side of the spill where the highest TPH concentration was 131 mg/Kg and only slightly above the RRAL (100 mg/kg) at 5 feet. The highest chloride concentration was 1,730 mg/Kg at 10 feet. The chloride concentration decreases to 126 mg/Kg at 25 feet. During the conference call on May 4, 2017, it was explained that groundwater occurs at about 32 feet bgs and flows from west-northwest to east-southeast. Boring SB-9 was drilled east and hydraulically down gradient of SB-12 and the spill. Soil samples were collected from SB-9 every five (5) feet between ground surface and 40 feet bgs. The laboratory reported chloride at 24.6 mg/Kg in samples from 35 and 40 feet within the saturated zone indicating that groundwater has not been impacted from the spill. Targa proposes no remediation at SB-12 due to the limited soil impact and demonstration that groundwater has not been compromised. Table 1 presents the soil sample analytical data summary. Figure 1 presents a topographic map. Figure 2 presents an aerial drawing. Figure 3 presents a Site drawing showing the boring locations. Attachment B presents the laboratory report.

Remediation Plan

- Excavate soil in the vicinity of SB-9 to approximately 16 feet bgs;
- Excavate soil in the vicinity of SB-14 to approximately 8 feet bgs;
- Excavate soil in the vicinity of SB-8 to approximately 4 feet bgs;
- Excavate soil in the vicinity of SB-10 (west-northwest) and SB-11 (east-southeast) to approximately 2 feet bgs;
- Dispose contaminated soil at Gandy Marley Landfill (NM1-19-0) located west of Tatum in Chaves County, New Mexico:
- Collect confirmation soil samples from the bottom and sidewalls of excavation for laboratory analysis of TPH (EPA SW-846-8015M) including GRO, DRO and ORO;
- Submit confirmation samples analysis to OCD District 1 to request approval to backfill excavation assuming TPH in below the RRAL;
- Backfill excavation with caliche to about 4 feet bgs and fill with top soil to ground surface;
- Seed location according to landowner requirements; and
- Prepare final closure report for submittal to OCD District 1.

Figure 4 presents a Site drawing and proposed excavation areas, depths and summary table.

Please contact Christina Higginbotham with Targa at (713) 584-1396 or chigginbotham@targaresources.com or me at (432) 687-0901, if you have questions. Sincerely,

Larson & Associates, Inc.

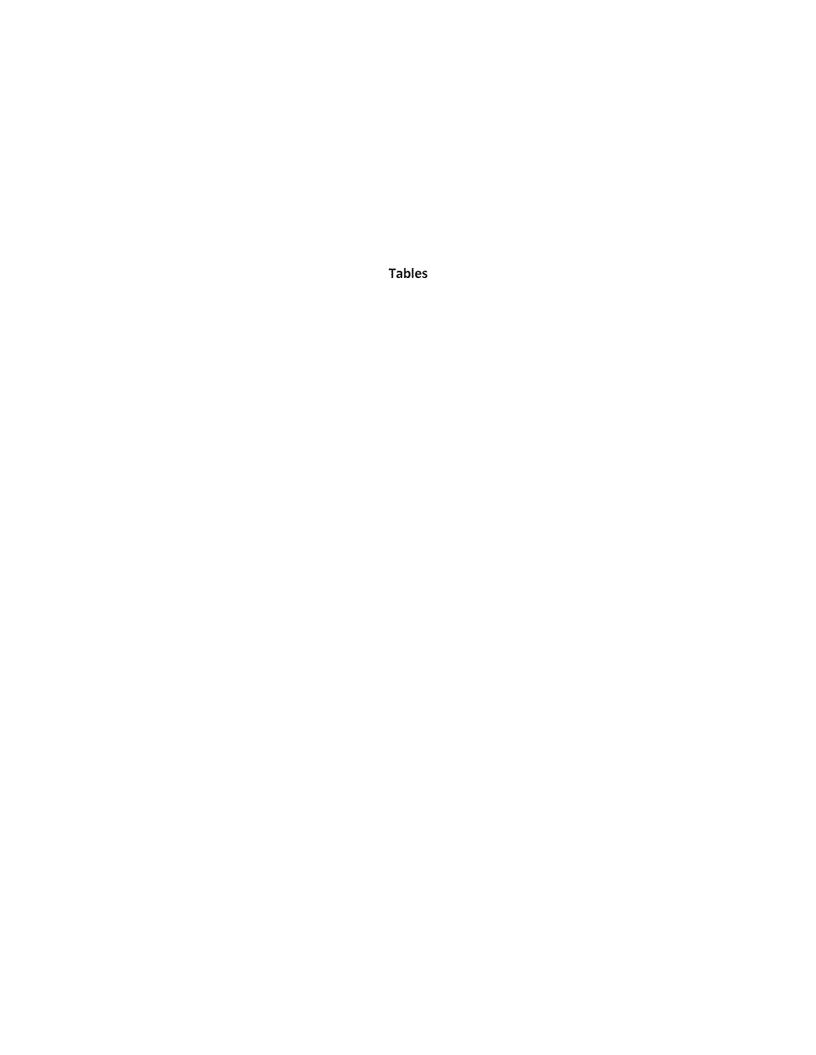
Mark J. Larson

President/Sr. Project Manager

Encl.

cc: Christina Higginbotham

Ralph England



Delineation Soil Sample Analytical Data Summary Targa Midstream Services, LLC, Epperson 16" Pipeline Release Site 1

Lea County, New Mexico

N30° 20' 49 1352" W103° 34' 29 0172"

				N30	20' 49.135	2" W103° 3	N30° 20′ 49.1352″ W103° 34′ 29.0172″				Page 1 of 4
Sample	Depth	Collection		DID	Benzene	BTEX	C6 - C12	C12 - C28	C28 - C35	TPH	Chloride
	(Feet)	Date		(mdd)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL:					10	20				100	**250
					Hand A	Hand Auger Soil Samples	amples				
HA-1	0.5	6/10/2016	In-Situ	0.0	1	1	<50.0	<4.00	<50.0	<50.0	68.4
HA-2	0.5	6/10/2016	In-Situ	0.0	1	1	<50.0	<4.00	<50.0	<50.0	843
HA-3	0.5	6/10/2016	In-Situ	8.0	1	1	<50.0	<4.00	<50.0	<50.0	<25.0
HA-4	0.5	6/10/2016	In-Situ	0.0	I	I	<50.0	<4.00	<50.0	<50.0	<25.0
HA-5	0.5	6/10/2016	In-Situ	0.8	1	ŀ	<50.0	<4.00	<50.0	<50.0	<25.0
HA-6	0.5	6/10/2016	In-Situ	0.0	1	1	<50.0	<4.00	<50.0	<50.0	<25.0
HA-7	0.5	6/10/2016	In-Situ	0.0	I	1	<50.0	<4.00	<50.0	<50.0	405
DA-0	0.3	0/10/2010	nic-iii	0.0			0.00%	74.00	0.000	0.000	0.0
					Soil	Soil Boring Samples	bles				
SB-1	1	6/30/2016	In-Situ	6.0	1	I	<50.0	<4.24	<50.0	<50.0	145
	2	6/30/2016	In-Situ	1.3	1	1	<50.0	<4.24	<50.0	<50.0	71.0
	3	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	536
	4	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	208
	2	6/30/2016	In-Situ	1.1	1	1	<50.0	<4.24	<50.0	<50.0	518
	9	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	434
SB-3	1	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	<25.0
SB-4	1	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	<25.0
SB-5	1	6/30/2016	In-Situ	0.0	ı	1	<50.0	<4.24	<50.0	<50.0	<25.0
SB-6	1	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	<25.0
SB-8	1	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	476
	2	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	1,850
	3	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	1,440
	4	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	884
	5	6/30/2016	In-Situ	0.0	1	1	<50.0	<4.24	<50.0	<50.0	469
	9	6/30/2016	In-Situ	0.0	:	-	230.0	74.24	0.00%	0.000	125

Delineation Soil Sample Analytical Data Summary Targa Midstream Services, LLC, Epperson 16" Pipeline Release Site 1

Lea County, New Mexico N30° 20' 49.1352" W103° 34' 29.0172"

	-					7	000		200		Page 2 or 4
Sample	(Feet)	Collection		(mdd)	(mg/Kg)	BIEX (mg/kg)	(mg/kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL:					10	50				100	**250
	7	6/30/2016	In-Situ	3.4		-	<50.0	<4.24	<50.0	<50.0	519
	∞	6/30/2016	In-Situ	2.1	Î	ı	<50.0	<4.24	<50.0	<50.0	295
S-1	10	10/18/2016	In-Situ	0.1	1	1	1	1	1		393
	12	10/18/2016	In-Situ	0.3	1	;	1	1	1	1	951
	14	10/18/2016	In-Situ	4.3	1	1	ł	1	1	ı	686
	16	10/18/2016	In-Situ	1.2	1	1	1	I	ı	I	1,580
*SB-9	0	2/08/2017	In-Situ	2.3	0.0361	0.0611	<27.2	496	124	620	2,970
	2	2/08/2017	In-Situ	3.0	1	1	<29.1	<29.1	<29.1	<29.1	855
	10	2/08/2017	In-Situ	750	0.0491	3.52	1.43	76.4	<27.2	219.4	6,870
	15	2/08/2017	In-Situ	975	0.286	20.95	371	146	<132	517	527
	16	1/10/2017	In-Situ	450.6	0.119	9.49	280	69.7	<15.0	349.7	280
	18	1/10/2017	In-Situ	752.7	0.161	9.13	0.89	27.4	<15.0	95.4	17.2
	20	1/10/2017	In-Situ	683.6	0.0857	8.92	105	67.2	<15.0	172.2	136
	25	1/10/2017	In-Situ	172.7	1	1	17.8	15.4	<14.9	33.2	93.1
	30	1/10/2017	In-Situ	267.3	ı	1	19.9	22.4	<15.0	42.3	25.8
	35	1/10/2017	In-Situ	36.3	I	Ī	<15.0	19.7	<15.0	19.7	24.6
	40	1/10/2017	In-Situ	20.2	1	;	<15.0	<15.0	<15.0	<15.0	24.6
							0	i c	0.00	100	77
*SB-10	0	2/08/2017	In-Situ	9.0	1	1	<26.9	85.8	31.2	117	11.2
	2	2/08/2017	In-Situ	4.1	1	1	<28.4	<28.4	<28.4	<28.4	/88
	10	2/08/2017	In-Situ	92	1	1	<27.5	<27.5	<27.5	<27.5	492
	15	2/08/2017	In-Situ	162	0.0483	0.8503	<26.6	<26.6	<26.6	<26.6	260
	20	2/08/2017	In-Situ	1,030	0.0848	3.5268	8.96	<26.3	<26.3	8.96	92.7
	25	2/08/2017	In-Situ	51	1	1	<25.5	<25.5	<25.5	<25.5	47.7
									1		0 17
*SB-11	0	2/08/2017	In-Situ	0.5	1	1	<.425	144	20.7	134.1	C'/T
	2	2/08/2017	In-Situ	0.7	1	-	<27.2	<27.2	<27.2	<27.2	115
	10	2/08/2017	In-Situ	0.7	1	1	1	1	1	1	52.7
	15	2/08/2017	In-Situ	1.0	!	1	<26.6	<26.6	<26.6	<26.6	26.5
	20	2/08/2017	In-Situ	11	1	:	-	-	-	1	6.64

Delineation Soil Sample Analytical Data Summary Targa Midstream Services, LLC, Epperson 16" Pipeline Release Site 1

Lea County, New Mexico N30° 20' 49.1352" W103° 34' 29.0172"

				N3	0° 20′ 49.13	52" W103°	N30° 20′ 49.1352″ W103° 34′ 29.0172″	"			Page 3 of 4
Sample	Depth (Feet)	Collection Date	Status	Old (mdd)	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:					10	20				100	*250
	25	2/08/2017	In-Situ	25	ı	1	<26.0	<26.0	<26.0	<26.0	19.9
*SB-12	0	2/08/2017	In-Situ	5.5	1	-	<26.0	<26.0	<26.0	<26.0	8.55
	2	2/08/2017	In-Situ	1.5	:	1	<27.5	131	<27.5	131	738
	10	2/08/2017	In-Situ	3.6	1	1	1	1	1	1	1,730
	15	2/08/2017	In-Situ	11	1	:	<27.2	<27.2	<27.2	<27.2	834
	20	2/08/2017	In-Situ	0.6	1	1	1	1	ı	1	479
	25	2/08/2017	In-Situ	32	1	1	<25.8	<25.8	<25.8	<25.8	126
*CB 12	C	2/08/2017	In-Situ	16	1	1	<26.9	42.0	27.1	69.1	15.5
CT-00	о го	2/08/2017	In-Situ	1.1	1	1	<27.5	52.5	29.2	81.7	593
	10	2/08/2017	In-Situ	0.7	1	1	1	1	1	ŀ	481
	15	2/08/2017	In-Situ	2.5	1	1	<27.2	38.3	<27.2	38.2	193
	20	2/08/2017	In-Situ	16	1	1	1	1	1	1	30.0
	25	2/08/2017	In-Situ	23	ı	1	<25.8	<25.8	<25.8	<25.8	22.0
										100	777
*SB-14	0	2/08/2017	In-Situ	2.1	0.0281	0.0281	<26.0	74.4	<26.0	/4.4	546
	2	2/08/2017	In-Situ	2,600	0.45	83.16	1,450	444	<272	1,894	31.3
	10	2/08/2017	In-Situ	190	<0.0215	1.4841	112	<26.9	<26.9	112	10.5
	15	2/08/2017	In-Situ	130	1	1	<25.8	42.2	33.5	75.7	18.3
	20	2/08/2017	In-Situ	88	ı	1	<26.6	<26.6	<26.6	<26.6	8.09
	25	2/08/2017	In-Situ	49	I	ŀ	1	1	1	1	122
									1	L	000
*SB-15	0	2/09/2017	In-Situ	1.5	1	1	<27.2	46.5	<27.2	46.5	38.2
	2	2/09/2017	In-Situ	9.0	Ī	1	<28.1	<28.1	<28.1	<28.1	5.46
	10	2/09/2017	In-Situ	0.4	1	1	1	1	l	1	<1.06
	15	2/09/2017	In-Situ	8.0	1	ı	<26.0	<26.0	<26.0	<26.0	8.53
	20	2/09/2017	In-Situ	5.0	ı	1	1	1	1	1	<1.03
<i>2016</i>	25	2/09/2017	In-Situ	6.1	I	1	<25.5	<25.5	<25.5	<25.5	4.27
			 -		H - 1	V C L	C147 0 46 147	*had 8021B	TPH)	7 NJ 2015M (T	DH)

Notes: Laboratory analysis performed by Trace Analysis, Inc., Lubbock, Texas by EPA SW-846 Method 8021B (BTEX), Method 8015M (TPH)

and Method 300 (chloride).

Delineation Soil Sample Analytical Data Summary

Targa Midstream Services, LLC, Epperson 16" Pipeline Release Site 1

Lea County, New Mexico

N30° 20' 49.1352" W103° 34' 29.0172"

*: Anaylsis performed by Permian Basin Environmental Lab, Midland, Texas

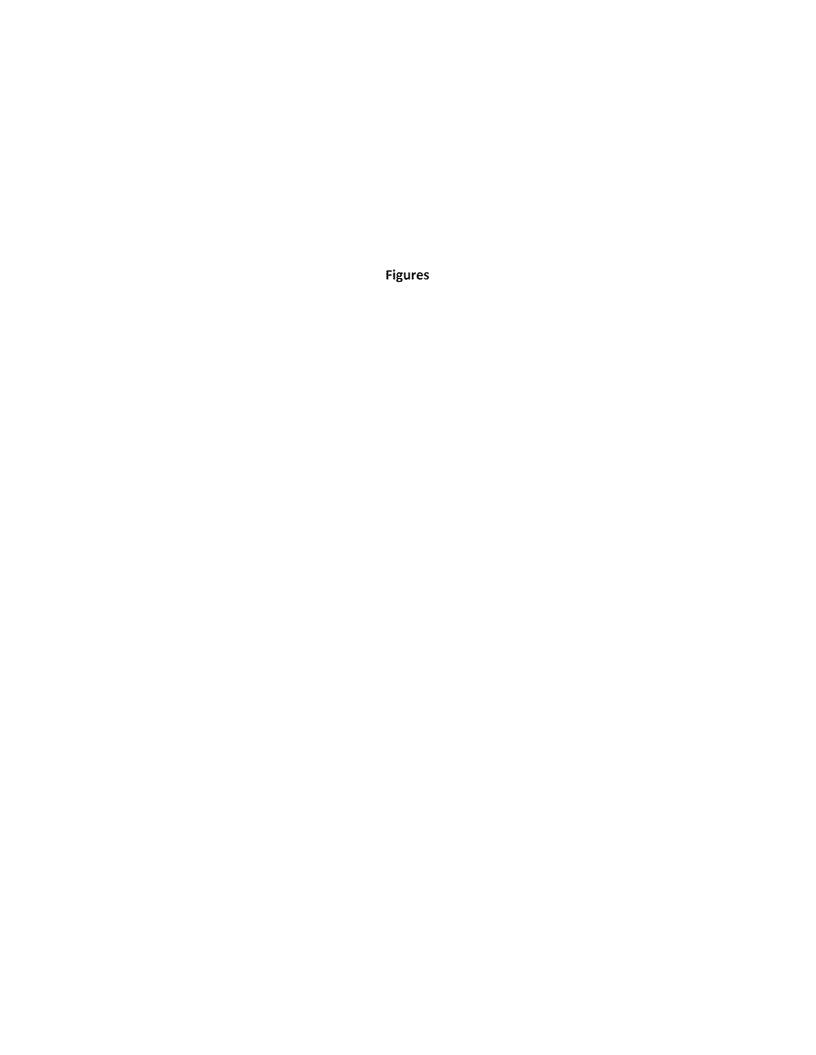
*: Anayısıs periormed by Permian basın environmen **: OCD delineation limit

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Bold and highlighted indicates that analyte was detected above the OCD recommended remediation action level (RRAL)

Page 4 of 4



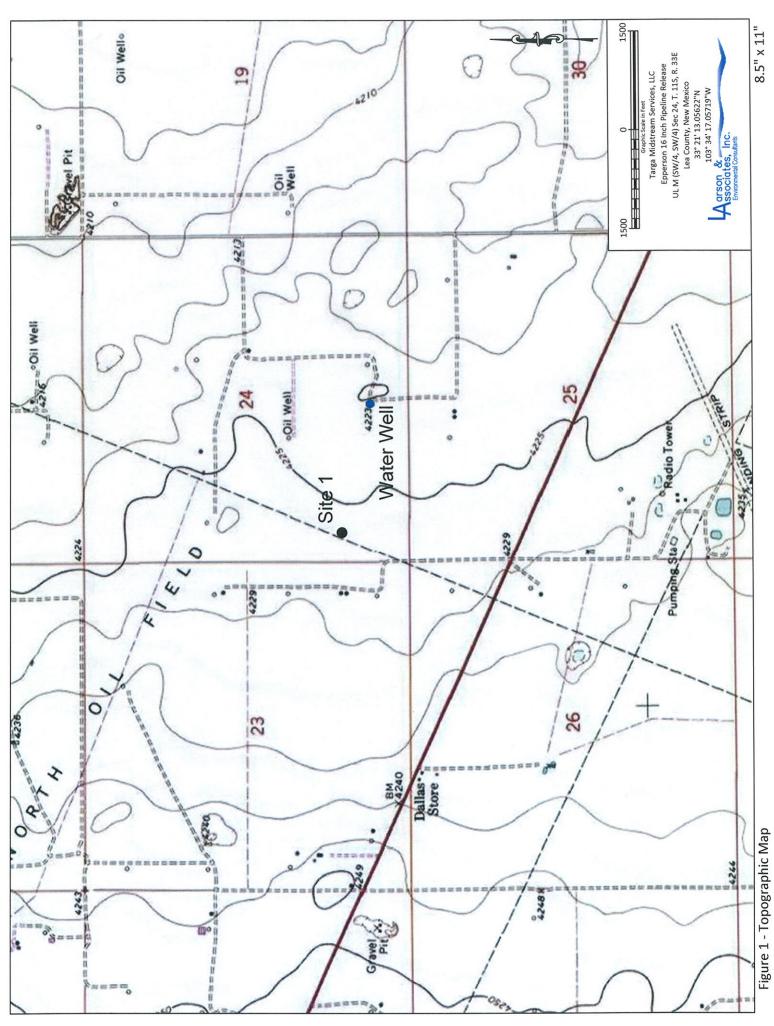




Figure 2 - Aerial Map

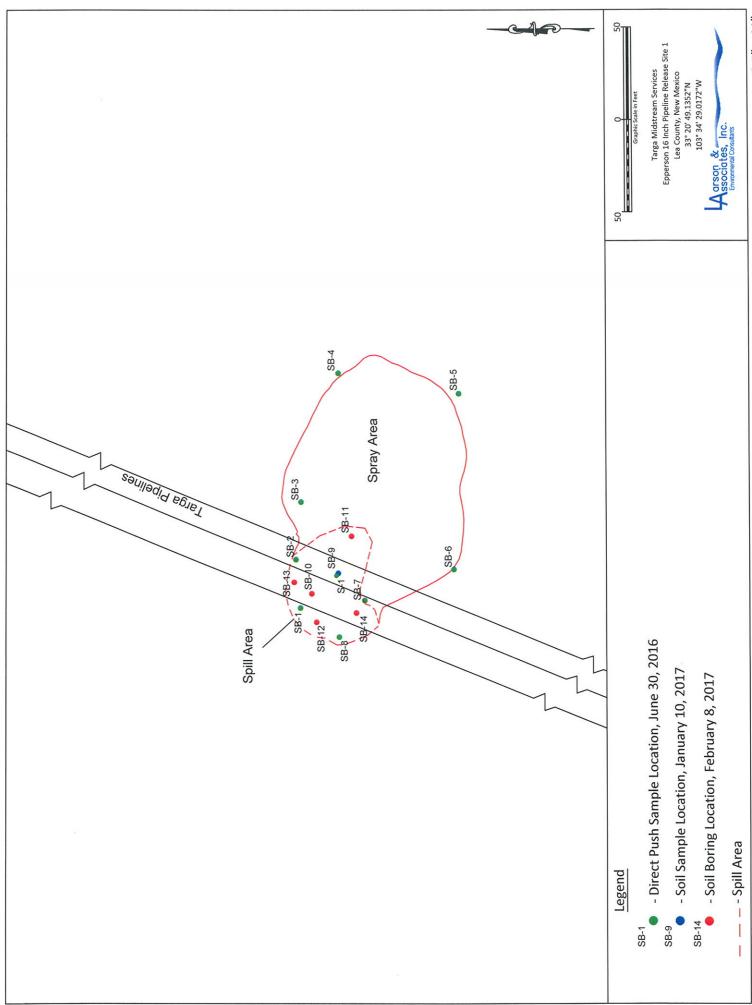


Figure 3 - Site Map Site 1

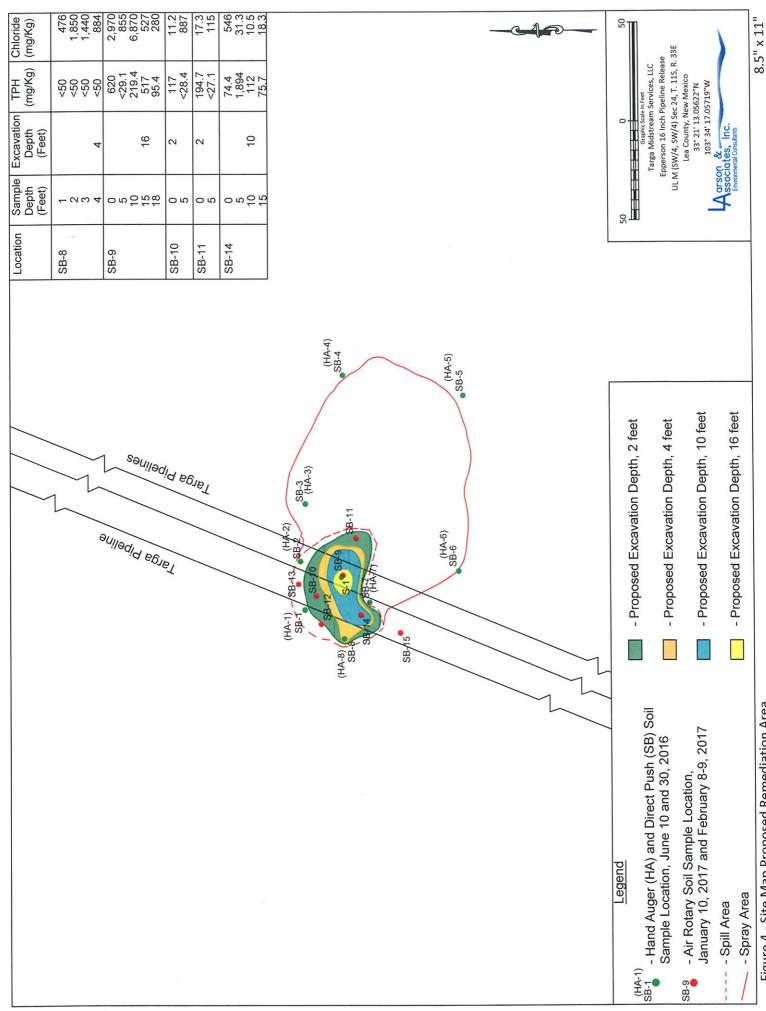


Figure 4 - Site Map Proposed Remediation Area

Attachment A

OCD Communication

Mark Larson

Yu, Olivia, EMNRD [Olivia.Yu@state.nm.us] From: Wednesday, July 12, 2017 3:10 PM Sent: To:

wednesday, July 12, 2017 3:10 PM Mark Larson; Oberding, Tomas, EMNRD 'Higginbotham, Christina'; 'Duncan, Randy'; 'England, Ralph E.'; 'Klein, Cindy D.' Cc:

RE: 1RP-4664 - Addendum Spill Delineation Report, Epperson 16" Pipeline Release Site #1, May 30, 2017 and 1RP-4665 - Addendum Spill Delineation Report, Epperson 16" Pipeline Release Site #2 Subject:

Mr. Larson:

The addendum to 1RP-4664 delineation report does not address proposed remediation nor delineation at SB-8 and SB-12 areas as mentioned in the May 1, 2017 email.

Thanks, Olivia

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Tuesday, June 27, 2017 12:41 PM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>

Cc: 'Higginbotham, Christina' <chigginbotham@targaresources.com>; 'Duncan, Randy' <RDuncan@targaresources.com>; 'England, Ralph E.'

<REngland@targaresources.com>; 'Klein, Cindy D.' <CynthiaKlein@targaresources.com>

Subject: Re: 1RP-4664 - Addendum Spill Delineation Report, Epperson 16" Pipeline Release Site #1, May 30, 2017 and 1RP-4665 - Addendum Spill Delineation Report, Epperson 16" Pipeline Release Site #2

Olivia/Tomas.

On behalf of Traga Midstream Services, LLC (Targa) please use the link below to download the above referenced reports for 1RP-4664 9Epperson 16" Pipeline Release #1) and 1RP-4665 (Epperson 16" Pipeline Release #2). Targa requests OCD approval to commence remediation at 1RP-4664 and closure with no further action for 1RP-4665. Please contact Christina Higginbotham with Targa at (713) 584-1396 or me f you have questions.

Link: https://files.acrobat.com/a/preview/ec1deccd-256d-4710-a534-4bb079c9d97c

Respectfully,

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 205 Midland, Texas 79701 Office - 432-687-0901 Cell - 432-556-8656 Fax - 432-687-0456 mark@laenvironmental.com



"Serving the Permian Basin Since 2000"

From: Mark Larson

Sent: Wednesday, May 03, 2017 1:00 PM
To: 'Yu, Olivia, EMNRD'; 'Oberding, Tomas, EMNRD'; 'Higginbotham, Christina'

Subject: RE: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and Spill Delineation Report for 1RP-4665 (Epperson 16" Pipeline

Release Site #2)

That will work! I am assuming 10:00 AM in New Mexico and 11:00AM in Texas? Call in number: 1-877-411-9748 Access Code: 3669914

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]

Sent: Wednesday, May 03, 2017 12:48 PM

To: Mark Larson

Cc: 'Higginbotham, Christina'; Oberding, Tomas, EMNRD

Subject: RE: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and Spill Delineation Report for 1RP-4665 (Epperson 16" Pipeline

Release Site #2)

Mr. Larson:

Does tomorrow, May 4, 2017, at 10 a.m. work? Dr. Oberding will also be calling in. Please provide a teleconference call number and code.

Thanks,

Olivia

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Wednesday, May 3, 2017 10:54 AM

To: Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

Cc: 'Higginbotham, Christina' < chigginbotham@targaresources.com>

Subject: RE: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and Spill Delineation Report for 1RP-4665 (Epperson 16" Pipeline Release Site #2)

Olivia.

Would be available for a conference call to discuss the questions you have concerning the delineation reports for 1RP-4664 and 1RP-4665? Christina Higginbotham with Targa would like to be on the call. Please let me know a convenient date/time for you. Respectfully,

Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 205
Midland, Texas 79701
Office – 432-687-0901
Cell – 432- 556-8656
Fax – 432-687-0456
mark@laenvironmental.com



"Serving the Permian Basin Since 2000"

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]

Sent: Monday, May 01, 2017 4:34 PM

To: Mark Larson

Cc: 'England, Ralph E.'; 'Higginbotham, Christina'

Subject: RE: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1)

Mr. Larson:

Please address the following concerns regarding the delineation workplan for 1RP-4664. Please confirm.

- Given that depth to groundwater is < 50 ft. bgs, additional vertical delineation is required at SB 1, 8 and 12 for chlorides. Obtain and maintain 250 mg/kg chloride levels for 10 more ft. below. At SB1, if the groundwater table is expected to be breached, a temporary monitoring well may be required.
- The remediation plan requires a revision with consideration to chlorides.

Thanks,

Olivia Yu Environmental Specialist NMOCD, District I <u>Olivia.yu@state.nm.us</u> 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Thursday, April 20, 2017 8:01 AM

To: Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

 $\textbf{Cc: 'England, Ralph E.'} < \underline{\textbf{REngland@targaresources.com'}}; \textbf{'Higginbotham, Christina'} < \underline{\textbf{chigginbotham@targaresources.com'}}; \textbf{'Higginbotham, Christina'} < \underline{\textbf{chigginbotham}}; \textbf{'Chigginbotham, Christina'} < \underline{\textbf{chigginbo$

Subject: RE: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1)

Olivia

I apologize for the oversight. The GPS coordinates on the C-141 and drawings are correct. The GPS coordinates on the report cover and on Page 1 have been corrected. The investigation was performed to understand the extent of the release and based on the evaluation of the data it was determined it was appropriate to report the release to OCD. The remediation plan is included as Section 3 Recommendations. Please contact Ralph England with Targa at (575) 396-3221 Ext. 224 or REngland@targaresources.com or me if you have questions.

Link to 1RP-4664: https://files.acrobat.com/a/preview/d450c1c6-5a08-4d35-8929-029e8d1a9026

Respectfully,

Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 205
Midland, Texas 79701
Office – 432-687-0901
Cell – 432-556-8656
Fax – 432-687-0456
mark@laenvironmental.com



"Serving the Permian Basin Since 2000"

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]

Sent: Tuesday, April 18, 2017 11:41 AM

To: Mark Larson

Cc: 'England, Ralph E.'; 'Higginbotham, Christina'

Subject: Spill Delineation Report for 1RP-4664 (Epperson 16" Pipeline Release Site #1)

Dear Mr. Larson:

Please address these concerns regarding the delineation report for 1RP-4664:

- 1. The GPS location of the release on the C-141 and on Figure 2 does not correspond to the coordinates written on pg. 1, which refer to Site #2 release. Please correct or inform otherwise.
- 2. I overlooked the discovery date upon review of the initial C141. What is the rationale for submitting an initial C141 and delineation workplan in March 2017, when work began in June 2016?

Thanks,

Olivia Yu Environmental Specialist NMOCD, District I <u>Olivia.yu@state.nm.us</u> 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Yu, Olivia, EMNRD

Sent: Tuesday, April 11, 2017 3:56 PM

To: 'Mark Larson' < Mark@laenvironmental.com >

Cc: 'England, Ralph E.' < REngland@targaresources.com >; 'Higginbotham, Christina' < chigginbotham@targaresources.com >

Subject: RE: Spill Delineation Reports for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and 1RP-4665 (Epperson 16" Pipeline Release Site #2), Lea County,

New Mexico

Mr. Larson:

Yes. I was able to download the 2 pdfs for 1RP-4664 and 1RP-4665, but I have not review them. They will be assessed in the order in which I received them. ETA is probably mid next week.

Olivia

From: Mark Larson [mailto:Mark@laenvironmental.com]

Sent: Tuesday, April 11, 2017 2:39 PM

To: Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us>

Cc: 'England, Ralph E.' < REngland@targaresources.com'>; 'Higginbotham, Christina' < Chigginbotham@targaresources.com'>

Subject: Re: Spill Delineation Reports for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and 1RP-4665 (Epperson 16" Pipeline Release Site #2), Lea County,

New Mexico

Hello Olivia,

I'm following up to make confirm that you received and were able to down load and review the delineation reports for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and 1RP-4665 (Epperson 16" Pipeline Release #2) that were submitted on April 5, 2017? Please contact Ralph England with Targa at (575) 396-3221 Ext. 224 or REngland@targaresources.com or me if you have questions.

Respectfully,

Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 205
Midland, Texas 79701
Office – 432-687-0901
Cell – 432-556-8656
Fax – 432-687-0456
mark@laenvironmental.com



"Serving the Permian Basin Since 2000"

From: Mark Larson

Sent: Wednesday, April 05, 2017 11:37 AM

To: 'Yu, Olivia, EMNRD'

Cc: 'England, Ralph E.'; 'Higginbotham, Christina'

Subject: RE: DSpill Delineation Reports for 1RP-4664 (Epperson 16" Pipeline Release Site #1) and 1RP-4665 (Epperson 16" Pipeline Release Site #2), Lea

County, New Mexico

Dear Ms. Yu,

Please use the links below to download electronic copies of the spill delineation reports for 1RP-4664 and 1RP-4665 submitted on behalf of Targa Midstream Services, LLC. Please contact Ralph England with Targa at (575) 396-3221 Ext. 224 or REngland@targaresources.com or me if you have questions.

 $Link to 1RP-4664: \\ \underline{https://files.acrobat.com/a/preview/1cba9ad8-322b-40a5-957c-6e1e37f93dda} \\ Link to 1RP-4665: \\ \underline{https://files.acrobat.com/a/preview/e83e9e5f-3410-4309-9548-4bedd03d580d} \\ Link to 1RP-4666: \\ \underline{https://files.acrobat.com/a/preview/e83e9e5f-3410-4300-9548-4bedd03d580d} \\ Link to 1RP-4666: \\ \underline{https://files.acrobat.com/a/preview/e83e9e5f-3410-4300-9548-4bedd03d580d} \\ Link to 1RP-4666: \\ \underline{https://files.acrobat.com/a/preview/e83e9e5f-3410-4300-9548-4b$

Respectfully,

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 205 Midland, Texas 79701 Office - 432-687-0901 Cell - 432- 556-8656 Fax - 432-687-0456 mark@laenvironmental.com



"Serving the Permian Basin Since 2000"

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]
Sent: Friday, March 31, 2017 2:35 PM

To: Mark Larson Cc: 'England, Ralph E.'

Subject: RE: Initial C-141 - Targa Midstream Services, Epperson 16" Pipeline Release Site #1 and Release Site #2, Lea County, New Mexico

Dear Mr. England:

NB: The PLSS for the releases were adjusted based on the GPS coordinates provided. Please confirm.

The RPs for these incidents are

4664	3/31/2017	А	Targa Midstream Srvcs.	Epperson 16" pipeline (release site #1)	11S-33E-24F	unknown
4665	3/31/2017	А	Targa Midstream Srvcs.	Epperson 16" pipeline (release site #2)	11S-33E- 24M	unknown

Please note that a release characterization/delineation workplan as detailed in the attachment must be approved by NMOCD BEFORE any remediation work.

Thanks,

Olivia Yu **Environmental Specialist** NMOCD, District I Olivia.yu@state.nm.us 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Mark Larson [mailto:Mark@laenvironmental.com] Sent: Wednesday, March 29, 2017 2:24 PM To: Yu, Olivia, EMNRD < Olivia.Yu@state.nm.us>

Cc: 'England, Ralph E.' < REngland@targaresources.com >

Subject: Re: Initial C-141 - Targa Midstream Services, Epperson 16" Pipeline Release Site #1 and Release Site #2, Lea County, New Mexico

Please find attached initial C-141 for Targa Midstream Services, LLC. The C-141s are for two (2) releases (Release Site #1 and Release Site #2) from the Epperson 16" pipeline located west of Tatum, in Lea County, New Mexico. Please contact Ralph England (REngland@targaresources.com) or call (575) 396-3221, Ext. 224 or me if you have questions.

Mark J. Larson, P.G. President/Sr. Project Manager 507 N. Marienfeld St., Suite 205 Midland, Texas 79701 (432) 687-0901 (O) (432) 556-8656 (C)



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Attachment B

Laboratory Report

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



Analytical Report

Prepared for:

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, TX 79710

Project: Epperson Site 1
Project Number: 16-0120-01
Location: New Mexico

Lab Order Number: 7B10001



NELAP/TCEQ # T104704156-16-6

Report Date: 05/16/17

Earson & Associates, Inc. P.O. Box 50685

Midland TX, 79710

Project: Epperson Site 1 Project Number: 16-0120-01

Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
513-9 0'	7(310001-0)	Soil	02/08/17 10:30	02-10-2017 09:30
\$B-9 5°	71310001-02	Soil	02/08/17 10:42	02-10-2017 09:30
\$8-9 10'	71310001-03	Soil	02/08/17 10:46	02-10-2017 09:30
\$8-9.15	7131 0001-04	Soil	02/08/17 10:51	02-10-2017 09:30
SB-11 0'	71310001-05	Soit	02/08/17 10:57	02-10-2017 09:30
\$B-11 5'	71310001-06	Soil	02/08/17 11:04	02-10-2017 09:30
\$B-11 10°	71310001-07	Soil	02/08/17 11:08	02-10-2017 09:30
\$B-11 15	7(310001-08	Soil	02/08/17 11:11	02-10-2017 09:30
\$8-11 20	7810001-09	Şeil	02/08/17 11:15	02-10-2017 09:30
\$B-11 25'	7810001-10	Şoil	02/08/(7 11:20	02-10-2017 09:30
\$B-10.0	7810001-11	\$oil	02/08/17 11:35	02-10-2017 09:30
\$13-10.5	71310001-12	Soil	02/08/17 11:42	02-10-2017 09:30
\$8-10.10	7131 000 1-13	Soil	02/08/17 11:46	02-10-2017 09:30
\$B-10 15'	7B10001-14	Soil	02/08/17 11:50	02-10-2017 09:30
\$13-10 20'	7)310001-15	Soil	02/08/17 11:55	02-10-2017 09:30
SB-10 25'	71310001-16	Soil	02/08/17 12:00	02-10-2017 09:30
\$13-12.0	71310003-17	Soil	02/08/17 12:49	02-10-2017 09:30
\$18-12.5	71310001-38	Soil	02/08/17 12:57	02-10-2017 09:30
\$13-12-10"	7(31000)-19	Soil	02/08/17 13:04	02-10-2017 09:30
\$13-12-15"	7810001-20	Soil	02/08/17 13:07	02-10-2017 09:30
SB-12 20'	7810001-21	Soil	02/08/17 13:07	02-10-2017 09:30
SB-12 25'	71310001-22	Soil	02/08/17 13:18	02-10-2017 09:30
SB-14 f/	7B10001-23	Soil	02/08/17 14:35	02-10-2017 09:30
SB-14 5'	7810001-24	Soil	02/08/17 14:39	02-10-2017 09:30
\$B-14-10"	7B10001-25	Soil	02/08/17 14:43	02-10-2017 09:30
SB-14-15"	7B10001-26	Soi!	02/08/17 14:50	02-10-2017 09:30
\$8-14-20"	71310001-27	Soil	02/08/17 14:52	02-10-2017 09:30
\$8-14-25"	7810001-28	Soil	02/08/17 14:58	02-10-2017 09:30
\$13-13-0"	7(310001-29	Seil	02/08/17 15:05	02-10-2017 09:30
SB-15 5"	7B10001-30	Soil	02/08/17 (5/10	02-10-2017 09:3
\$8-13.10"	7810001-31	Soil	02/08/17 15:15	02-10-2017 09:3
SB-13-15'	7810001-32	Soil	02/08/17 15 20	02-10-2017 09:3
SB-13-20'	7810601-33	Soi)	02/08/17 15:22	02-10-2017 09:3
\$8-13.25"	7819001-34	Sort	02/08/17 15:27	03-10-2017 09:3

Larson & Associates, Inc. P.O. Box 50685

Project: Epperson Site I Project Number: 16-0120-01

Midland TX, 79710

Project Namager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory H	Matrix	Date Sampled	Date Received
\$8-10 30'	71310001-35	Soil	02/08/17 12:40	02-10-2017 09.30
SB-15 0'	71310001-36	Soil	02/09/17 09:35	02-10-2017 09:30
SB-15 5'	7810001-37	Soil	02/09/17 09:38	02-10-2017 09:30
\$8-15.10	7810001-38	Soil	02/09/17 09:43	02-10-2017 09:30
SB-15 15'	7810001-39	Soil	02/09/17 09:49	02-10-2017 09:30
SB-15 20'	7/310001-40	Soil	02/09/17 09:52	02-10-2017 09:30
SB-15 25'	7810001-41	Soil	02/09/17 09.59	02-10-2017 09:3

Fax: (432) 687-0456

P.O. Box 50685

Midland TX, 79710

Project: Epperson Site 1

Project Number: 16-0120-01

Project Manager: Mark Latxon

Fax: (432) 687-0456

SB-9 01 7B10001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Proposed	Analyzed	Method	Note
	Pen	nian Basin I	Invironmei	ital Lab, l	P.				
Organics by GC									
Benzene	0.0361	0.0217	mg∕kg dry	20	P7B1601	02/15/17	02/15/17	EPA 802113	
Toluene	ND	0.0435	mg/kg dry	30	P7B1601	02/15/17	02/15/17	EPA 8021B	
Ethylbenzene	0.0250	0.0217	mg/kg dry	20	P7B1601	02/15/17	02/15/17	EPA 802113	
Xyiene (p/m)	ND	0.0435	mg/kg dry	20	P7B1601	02/15/17	02/15/17	EPA 8021B	
Xylene (o)	ВD	0.0217	mg/kg dry	30	P7B1601	02/15/17	02/15/17	EPA 80213	
Survogato: 4-Bromofluorohenzene		110%	25-1	25	P2B1601	02/15/17	02/15/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		105 %	25-1	2.5	P7B1601	02/15/17	02/15/17	EPA 8021B	
General Chemistry Parameters by EF	A / Standard Method	is							
Chloride	2970	27.2	mg/kg dry	25	P7B: 50-1	02/15/17	02/16/17	EPA 300,0	
% Moisture	8.0	0 }	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Potal Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
D6-C12	N/D	27.2	mg/kg diy	l	P7B1604	02/15/17	02/15/17	TPH 8015M	
C12-C28	496	27.2	mg/kg dry	ı	P7B1604	02/15/17	02/15/17	TPH 8015M	
≻C28-C35	124	27.2	marka dry	1	P713:604	02/15/17	02/15/17	TPH 8015M	
Surrogate: 1-Chlorooctane		99.0 %	70-1	30	P7B1604	02/13/17	03/15/17	TPH 8015M	
Surrogate, o-Terphonyl		116%	20-1	30	P7B1694	02/15/17	62/13/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	620	27.2	mg/kg dry	ł	(CALC)	02/15/17	02/15/17	calc	

Earson & Associates, Inc. P.O. Box 50685

Total Petroleum Hydrocarbon C6-C35

Midland TX, 79710

Project: Epperson Site 1

Fax (432) 687-0456

cate

02/10/17

Project Number: 16-0120-03 Project Manager: Mark Larson

> SB-9 5' B10001-02 (Soil)

<u></u>		7B10	001-02 (So	ił)					
Analyte	Result	Reporting Limit	Umts	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permia	n Basin I	invironme	ntal Lab, i	L.P.	acogypogenesia acidem an mora sa			the historical districts around a strange
General Chemistry Parameters by	EPA/Standard Methods								
Chloride	855	11.6	mg/kg dry	10	P7B1012	02/10/17	02/13/17	EPA 300.0	~~~~~
% Moisture	14.0	0.1	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons Co	-C35 by EPA Method 80151	м :							
C6-C12	עא	29.1	mg/kg dry	l	P7B1404	02/10/17	02/16/17	TPH 8015M	
>C12-C28	ďΝ	29.1	mg/kg dcy	1	P7B1404	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	29.1	mg/kg day	1	P7B1404	02/10/17	02/10/17	TPH 8015M	
Surrogate: 1-Chlorooctane		97.4%	70-1	30	157131404	02/10/17	02/10/17	TTH 8015M	
Surrogate: o-Terphenyl		111%	20-1		P2B1404	02/10/17	62/10/17	TPH 8015M	

29.1 mg/kg dry

(CALC)

02/10/17

ND

Project: Epperson Site 1

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

SB-9 101 7B10001-03 (Soll)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Note
	Pén	nian Basin k	Environmei	ıtal Lab _ı l	P .				
Organics by GC									
Benzene	0.0491	0.0217	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B	
Toluene	8.424	0.0435	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B	
Ethylbenzene	0.891	0.0217	ալ₀⁄kը dry	20	P2B1305	02/10/17	02/10/17	EPA 8021B	
Xylene (p/m)	1.53	0.0435	migkg dry	20	P7R1305	02/10/17	02/10/17	EPA 8021B	
Xylene (o)	0.648	0.0217	mg/kg dry	20	P781305	62/10/17	02/10/17	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.4 %	75-1	25	P7B1305	03/10/17	02/10/17	EPA 80218	
Surcogate: 4-Bromofluoroheusens		107 %	75-1	25	P7B1305	02/10/17	02/10/17	EPA 8021B	
General Chemistry Parameters by El	A / Standard Method	ts							
Chloride	6870	27.2	mg/kg dry	25	P7131012	02/10/17	02/13/17	EPA 300.0	
% Moisture	0.8	0.1	%	\$	P78:308	02/13/17	02/13/17	% calculation	
<u> Fotal Petroleum Hydrocarbons C6-C</u>	35 by EPA Method 80	15M							
C6-C12	143	27.2	mg/kg dry	1	P7B:404	02/(0/17	02/10/17	TPH 8015M	
-C12-C28	76.4	27.2	mg/kg dry	1	P781404	02/10/17	02/10/17	TPH 8015M	
>C28-C35	МD	27.2	maying dry	1	P7B1404	02/10/17	03/10/17	TPH 8015M	
Surrogate, 3-Chloroaciane		102 %	70-1	30	P7B1404	02/10/17	02/10/17	TPH 8015M	
Surrogate, a-lexphand		111%	70.1		P7B1404	02/10/17	02/10/17	TPH 8013M	
Total Petroleum Hydrocarbon C6-C3S	219	27.2	mg∕kg dry	1	(CALC)	03/10/17	02/10/17	calc	

Larson & Associates, Inc. P.O. Box 50685

Project: Tipperson Site I

Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mack Laison

SB-9 15' 7B10001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dibution	Batch	Propared	Analyzed	Method	Notes
	Pern	nian Basin E	Invironme	ital Lab, I	L.P.				
Organics by GC									
Венгене	0.286	0.021)	արձջ մոչ	30	P7B1305	03/10/17	02/10/17	EPA 8031B	
Toluene	6.08	0.0421	mg∕kg dry	20	P7B1305	02/19/17	02/10/17	EPA 8021B	
Ethylbenzone	4.50	0.0211	աց⁄ե <u>զ</u> փy	20	P7B1305	02/10/17	02/10/17	EPA 8021B	
Xylene (p/m)	7.36	0.0421	mg/kg dry	20	P7B13Q5	02/10/17	02/10/17	EPA 8021B	
Xylene (o)	2.78	0.0211	mg/kg dry	30	P7B1305	02/10/17	02/10/17	EPA 8031B	
Surragate: 1,4-Diftuorobenzena		99.5 %	75.1	25	P781305	62/10/17	02/10/17	EPA 80211)	
Surrogate: 4-Bromofluorobenzene		88.1 %	75-1	25	P7B1303	02/10/17	02/10/17	EPA 8021B	
General Chemistry Parameters by EP	A/Standard Method	s							
Chloride	527	1.05	mg∕kg dry	1	17731012	02/10/17	02/13/17	EPA 300.0	
% Moisture	5.0	0.1	%	i i	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbous C6-C3:	S by EPA Method 80	15M							
C6-C12	371	132	mg/kg dry	.5	P781404	02/10/17	02/10/17	TPH 8015M	
>C12-C28	146	132	mg/kg day	5	P7B1404	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	132	mg/kg dry	5	P7B3404	02/10/17	03/10/17	TPB 8015M	
Surrogate: 1-Chloroocione		104 %	7(7-)	30	P781404	02/10/17	02/10/17	TPH 8015M	
Surrogate: o-Terphenyl		113 %	70-1		P2B1404	02/10/17	02/10/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	517	132	mg/kg dry	5	(CALC)	02/10/17	02/10/17	ente	

Project: Epperson Site 1

Fax: (432) 687-0456

P.O. Box 50685 Midhard TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Latson

SB-11 0° 7B10001-05 (Soil)

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			·					~
Analyte	Result	Roportug Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Note
	Pern	iian Basin t	nvironmei	ital Lab,	L.P.				
General Chemistry Parameters by EP	A / Standard Method	8							
Chloride	17.3	1.08	mg/kg dry	í	1781504	02/15/17	02/16/17	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	26.9	mg/kg dry	ı	P7B1604	02/15/17	62/15/17	TPR 8015M	
>C12-C28	144	26.9	mg/kg dry	1	P7B1604	03/15/17	02/15/17	TPH 8015M	
>C28-C35	50.7	26.9	mg/kg dry	1	P783664	02/15/17	02/15/17	TPB 8015M	
Surragate: 1-Chlomociane		98.0 %	70-1	30	P7B1604	02/15/17	02/15/17	TPH 8015M	
Survegate: o-Terphenyl		116%	70-1		P2B1604	02/15/17	02/15/17	TPH 8015M	
Total Petroleum Hydrocarbon C6∙C35	195	26.9	mg/kg dry	1	(CALC)	02/15/17	02/15/17	ealv	

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson Pax. (432) 687-0456

SB-11 5' 7B10001-06 (Soil)

3										1
		Reporting								
Asalyte	Result	Limit	Units	Diluteoa	Batch	Prepared	Analyzed	Method	Notes	,

Darmian	Racin	Environme	ntal Lab	1 12
rerman	Basin.	EHVICABING	neae Lan.	1.1

General Chemistry Parameters by EPA/	Standard Method	s						
Chloride	115	1.09	mg/kg diy	1	P7B1012	02/10/17	02/13/17	EPA 300.0
% Moisture	8.0	0 1	%	1	P7B1308	02/13/17	02/13/17	% calculation
Total Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M						
C6-C12	ИD	27.2	mg/kg dry		17731404	02/10/17	02/10/17	TPH 8015M
>C12-C28	ND	27.2	mg/kg dry	3	P7B1404	02/10/17	02/10/17	TPH 8015M
>C28-C35	CIM	27,2	mg/kg dry	!	P7B14Q4	02/10/17	02/10/17	TPH 8015M
Surrogate. 1-Chloroctane		93.2%	70-130		P7B1404	02/10/17	02/10/17	TPH 8013M
Surrogate, o-Terphenyl		107 %	20-130	,	1281404	02/10/17	02/10/17	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	ı	(CALC)	03/10/17	02/10/17	çale

P.O. Box 50685 Midland TX, 79710 Project Epperson Site 1

Project Number: 16-0120-01

Fax: (432) 687-0456

Project Manager: Mark Laison

SB-11 10° 7B10001-07 (Soll)

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

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						-
Chloride	52.2	1.05	mg/kg dry	1	f*7E1011	05/10/17	05/11/17	EPA 300.0	
% Moisture	\$.0	() )	%,	í	F7B1308	02/13/17	02/13/12	% calculation	

Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710

Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson Fax. (432) 687-0456

# SB-11 15' 7B10001-08 (Soil)

				.,					
Analyte	Result	Reporting Limit	Units	Dilution	Baigh	Propared	Auslyzed	Methed	Notes
	Perm	ian Bastn F	Invironme	ital Lab,	L"P.				
General Chemistry Parameters by EPA /	Standard Methods	i							
Chloride	26.5	1.06	mg/kg dry	1	17331012	02/10/17	02/13/37	EPA 300.0	
% Moisture	6.0	0.1	%	1	197131308	02/13/1?	02/13/17	% cateriation	
Total Petroleum Hydrocarbons C6-C35 h	y EPA Method 801	5M							
C6-C12	ND	26.6	mg/kg dry	1	P7131404	02/10/17	02/10/17	TPH 8015M	
>C12-C28	МD	26.6	mg/kg dry	1	P7B1404	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P7B1404	02/10/17	02/10/17	TOB 8015M	
Surrogate 1-Chlorovetune		96.1%	70-1	30	1.781404	92/10/17	02/10/17	TPH 8015M	
Surroyate, o-Terphenyl		110%	70-7	30	12781404	03/10/17	02/10/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg day	f	(CALC)	02/10/17	02/10/17	çalç	

P.O. Box 50685

Project: Epperson Site 1

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 16-0120-01 Project Manager: Mark Larson

> \$B-11 20* 7B10001-09 (Soil)

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

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA/ Standard Methods

Chloride	6.64	1.03 mg/kg dry	}	P7E1011	05/10/12	05/11/17	EPA 309.0
% Molsture	3.0	0.1 %	}	P7B1368	02/13/17	02/13/17	% extculation

Midland TX, 79710

P.O. Box 50685

Project. Epperson Site 1

Fax: (432) 687-0456

Project Number: 16-0120-01 Project Manager: Mark Larson

> SB-11 25' 7B10001-10 (Seil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Proposed	Analyzed	Method	Notes
	Perm	ian Basin E	invironmen	tal Lab, l	L.P				
General Chemistry Parameters by EPA /	Standard Method	5							
Chloride	19,9	1.04	mg∕kg dry	ţ	317131012	02/10/17	02/13/17	EPA 300.0	
% Moisture	4.0	0.1	%	ŧ	bAB1308	02/13/17	02/13/17	% calculation	
Intal Petroleum Hydrocarbons C6-C35 i	y EPA Method 80	5M							
C6-C12	ND	26.0	mg/kg dry	ı	P7B1404	02/10/17	02/10/17	TPH 8015M	
·C12-C28	ND.	26.0	mg∕kg dry	ŧ	P7B1404	02/10/17	02/10/17	TPH 8015M	
-C28-C35	ND	26.0	mg/kg dry	1	P7B1404	02/10/17	02/10/17	TPH 8015M	
urrogate: 1-Chlorooctung		97.6 %	7(1-1	30	P2B1404	02/10/17	02/10/17	TPH 8015M	
urrogate, o-Terphenyl		111%	20-1.		P7B1404	02/10/17	02/10/17	77H 8015M	
Total Petroleum Hydrocarbon C6-C35	80	26.0	mg/kg dry		(CALC)	02/10/17	02/10/17	calc	

Project, Epperson Site 1

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

# \$B-10 0° 7B10001-11 (Sell)

			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	, 					
Analyte	Result	Reporting Limit	Units	Dilution	Baich	Prepared	Analyzed	Method	New
	Pern	ilan Basin E	invironmen	tal Lab, I	(P.		***************************************		
General Chemistry Parameters by EPA	/ Standard Method	s							
Chloride	13.2	1.08	mg/kg dry	1	P781504	02/15:17	02/16/17	GPA 300.0	
% Moisture	7.0	0. i	%	i	P781308	02/13/17	02/13/17	% calculation	
Potal Petroleum Hydracarbons C6-C35	by EPA Method 86	15M							
C6-C12	ND	26.9	mg/kg dry	1	P7B1604	02/15/17	02/15/17	TP318015M	
>C12-C28	85.8	26.9	mg/kg dry	1	P7B1604	02/15/17	02/15/17	TPH 801556	
>C28-C35	31,2	26.9	nig/kg dry	1	P7B1604	02/15/17	02/15/17	TPR 8015M	
Surrogate: 1-Chlarooctane		94.1 %	70-13	:0	P7B1604	0.2/15/17	02/15/17	TPH 8015M	
Surrogate: o-Torphenyl		115 %	70-13		P7B1604	02/15/17	02/15/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	117	26.9	mg/kg dry	ı	[CALC]	02/15/17	02/15/17	cale	

P.O. Box 50685 Midland TX, 79710 Project: Eppeison Site I

Project Number: 16-0120-01
Project Manager: Mark Larson

Pax: (432) 687-0456

SB-10 5'

7B10001-12 (Soil)

			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	•/					
Analyte	Result	Keporting Limit	Units	Dilution	Basch	Prepared	Analyzed	Method	Notes
	Pern	nian Basin I	invironmer	tal Lab,	L.P.				
General Chemistry Parameters by EPA /	Standard Method	\$							
Chloride	887	11.4	mg/kg dry	!0	P781504	03/15/17	02/16/17	EPA 300.0	
% Moisture	12,0	0.1	%.	ŧ	P7B1368	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbous C6-C35 b	y EPA Method 80	15M							
C6-C12	ND	28.4	mg/kg dry	1	P781404	02/10/17	02/10/17	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	Ł	P7B1404	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P7B [-104	02/16/17	02/10/17	TPH 8015M	
Surrogate: 1-Chlorooctana		93.5 %	70-1	30	P7B1404	02/10/17	02/10/17	11911 801314	
Surrogate: o-Terphonyl		107 %	70-1	30	P7B1404	02/10/17	02/10/17	TPH 801514	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	(CALC)	02/10/17	02/10/17	cale	

Midland TX, 79710

P.O. Box 50688

Fax: (432) 687-0456

Project Number: 16-0(20-0) Project Number: Mark Larson

> \$B-10 10' 7B10001-13 (Soil)

		7B10	001-13 (Soi	1)				~~~~~~~	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	ilan Basin I	Cavironmer	nal Lab,	L.P.				
General Chemistry Parameters by EPA / S	tandard Method	s							
Chloride	492	5,49	mg∕kg dry	5	P7131504	03/15/17	02/16/17	EPA 300.0	
% Moisture	9.0	0.1	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbous C6-C35 by	EPA Method 80	15M							
C6-C12	ND	27.5	mg/kg dry	ı	P7B1404	02/10/17	02/13/17	TPH \$015M	•
>C12-C28	ND	27.\$	mg∕kg dry	1	P7B1404	02/10/17	02/13/17	TPH 8015M	
>C28-C35	СИ	27.5	mg∕kg dry	1	2731404	02/10/17	02/13/17	TPH 8015M	
Surrogate: 1-Chlorooctane		83.5 %	70-1	30	P701404	02/10/17	02/13/17	TP11 8015M	
Surrogate: o-Terphenyl		97.0%	20-1	30	P7B1404	02/10/17	02/13/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	}	(CALC)	03/16/17	02/13/17	cale	

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site i

Project Number: 16-0120-01
Project Manager: Mark Larson

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# SB-10 15° 7B10001-14 (Soil)

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Analyte	Result	Reparting Limit	Units	Dilution	Batch	Propued	Analyzed	Method	Notes
	Peri	nian Basin b	Invironmen	ital Lab, l	P.				
Organies by GC									
Benzene	0.0483	0.0213	անկեն գոհ	20	P7B1305	02/10/17	02/10/17	EPA \$031B	
Toluene	0.113	0.0426	mg/kg dry	20	P781305	02/10/17	02/10/17	EPA 8021B	
Ethylbenzene	0.162	0.0213	mg/kg dry	26	P781305	02/10/17	02/10/13	EPA 8021B	
Xylene (p/m)	0.381	0.0426	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8034B	
Xylene (o)	0.146	0.0213	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B	
Surrogate, 1,4-Diffuorobenzeno		94.1 %	75-7	25	P7B1305	02/10/17	02/10/17	EPA 8021B	
Surrogate, 4-Bromofluorohenzene		111 %	75-7	25	P7B1303	02/16/17	02/10/17	EPA 8031B	
General Chemistry Parameters by EPA	Standard Method	ls							
Chloride	260	1.06	mg/kg dry	)	P7B1504	02/15/17	02/16/17	EPA 300.0	
% Moisture	6.0	0.1	%	ì	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C32	ND	26.6	mg/kg dry	1	127131404	02/10/17	02/13/17	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P7B1404	02/10/17	02/13/17	TPH 8015M	
>C28-C35	NI)	26.6	mg/kg dry	1	P7B1404	02/10/17	02/13/17	TPH 8015M	
Sucrogate: 1-Chloropetane		88.5 %	70-1	3(1)	P7B1404	02/10/17	02/13/17	TPH 8015M	
Surrogate: o-Terphonyl		103 %	70-1	•	P7B1404	02/10/17	02/13/17	1PH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	(CALC)	02/10/17	02/13/17	calc	

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Project: Epperson Site 1

Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

> SB-10 201 7B10001-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Note
	Perr	nian Basin k	invironmen	tal Lab, l	L.P.				
Organies by GC									
Benzene	0.0848	0.0211	mg/kg dry	20	P78130S	62/10/17	02/10/17	EPA 8031B	
Toluene	0.776	0.0423	mgAg dry	20	P281365	02/10/17	02/10/17	EPA 8021B	
Ethylbenzene	0.584	0.0211	mg/kg dry	20	P7B:305	02/10/17	02/10/17	EPA 8021B	
Xylene (p/m)	1.51	0.0421	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 802113	
Xylene (0)	0.572	0.0211	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B	
Surrogate 4-Bromofluorobenzeue		106 %	75-125		P7B1305	02/10/17	02/10/17	EPA 8021B	
Surrogato: 1,4-Difluorobenzene		907%	25-125		P7B1303	02/10/17	92/10/17	EPA 8021B	
General Chemistry Parameters by El	PA / Standard Method	ds							
Chloride	92,7	1.05	mg/kg dry	1	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Moisture	5.0	0 1	%	}	P7B13Q8	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
C6-C12	96.8	26.3	nig/kg dry	۱	₽7B1404	02/10/17	02/13/17	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P7B1404	02/10/17	02/13/17	TPB 8015M	
>C28-C35	ND	26.3	mg/kg diy	)	P7B) 404	02/10/17	02/13/17	TPH 8015M	
Surrogate, 1-Chloraoctane		91.5 %	20-13	0	P7B1404	03/10/17	02/13/17	TPH 801534	
Surrogata: a-Torphanyl		104 %	70-13		P781464	02/10/17	02/13/12	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	96.8	26.3	mg/kg dry	ı I	{CALC}	02/10/17	02/13/17	calc	

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Midland TX, 79710

Project: Epperson Site (

Project Number: 16-0120-01
Project Manager: Mark Larson

Fax: (432) 687-0456

#### SB-10 25' 7B10001-16 (Soil)

Analyte	Result	Reporting Limit	Units	Ditusion	Batch	Prepared	Analyzed	Method	Note
	ecount	***************************************	Oans	Dittaioa	1387611	tichaten	Anatyzeu	COUNTY CONTRACTOR	1,010
	Pern	iian Basin E	Invironment	al Lab, l	L.P.				
General Chemistry Parameters by EPA /	Standard Method	5							
Chlaride	47.7	1.02	mg∕kg dry	1	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Moisture	2.0	0.1	3/2	1	BAB 1308	02/13/17	02/13/17	% ententation	
<u> Total Petroleum Hydrocarbons C6-C35 b</u>	v EPA Method 80	15M							
C6-C12	פֿא	25.5	mg/kg dry	1	P7B1404	02/10/17	03/10/17	TPH 8015M	
C12-C28	ND	25.5	mg/kg dry	1	P7(3)(40)4	02/10/17	02/10/17	TPH 8015M	
C28-C35	ND	25.5	mg∕kg dry	1	P781404	02/10/17	02/10/17	TPH 8015M	
Surrogate: 1-Chloroocume		94.4 %	70-13	()	P7B1464	62/10/17	02/10/17	TPH 8015M	
Surroguto: a-Terphenyl		107 %	20-13	o	17781404	02/10/17	02/10/17	1PH 8015M	
Potal Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	(CALC)	02/10/17	02/{0/17	enic	

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Project: Epperson Site 3 Project Number: 16-0120-01

Project Manager. Mark Larson

Fax: (432) 687-0456

#### \$B-12 0' 7B10001-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Note
	Pers	nian Basin F	Invironme	ital Lab,	J.,.P.				
General Chemistry Parameters by EPA / Sta	ndard Method	ls							
Chloride	8.55	1.04	mg/kg dry	ì	P7B1504	02/15/17	02/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by E	PA Method 80	115M							
C6-C12	ND	26.0	mg/kg day	1	P2B1604	02/15/17	02/15/17	TPB 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P7B1604	02/15/17	03/15/17	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	}	P7B1604	03/15/17	02/15/17	TPH 8015M	
Stavogate: 1-Chloroactane		89.7 %	70-1	30	P7B1604	02/15/17	02/15/17	TP13 8015 M	
Surrogate: o-Terphonyl		105 %	70-1	30	P7B1604	02/13/17	03/15/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	(CALC)	02/15/17	02/15/17	calc	

Project: Epperson Site I

Fax: (432) 687-0456

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Project Number: 16-0120-01

Project Manager: Mark Larson

#### SB-12 5° 7B10001-18 (Soil)

		Reporting							
Analyte	Result	Lenit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	ın Basin E	Covironmen	tal Lab,	L.P.				
General Chemistry Parameters by EPA	Standard Methods								
Chloride	738	11.0	mg∕kg dry	10	P781012	02/10/17	02/13/17	EPA 300.0	
% Moisture	9.0	0.1	%	ł	P781308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 8015	M							
C6-C12	ND	27.5	mg/kg dry	}	P7B1404	02/10/17	02/10/17	TPH 8015M	
>C12-C28	131	27.5	mg/kg dry	ŧ	P7B1404	02/10/17	02/10/12	TPH 8045M	
>C28-C35	ND	27.5	ოg∕kg ძი	E	P7B1404	02/10/17	02/10/17	TOH ROISM	
Surrogate: 1-Chlorooctane		96.4 %	70-1.	30	P7B1404	02/10/17	02/10/17	TPH 8013M	
Surregute: o-Terphenyl		110%	70-1.	30	P7B1404	02/19/17	02/10/17	TPH 801513	
Total Petroleum Hydrocarbon C6-C35	131	27.5	mg/kg dry	t	{CALC}	02/10/17	02/10/17	eale	

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Midland TX, 79710

Analyte

Project: Epperson Site I

Project Number: 16-0120-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Method

SB-12 10' 7B10001-19 (Soil)

Reporting	

Batch

Prepared

Analyzed

Dilution

Permian Basin Environmental Lab, L.P.

Units

General Chemistry Parameters by EPA / Standard Methods

Chloride	1730	11.8 mg/kg dry	10	PREMOTE	05/10/17	05/11/17	EPA 300.0
% Moisture	15.0	0.1	1	P7B1308	02/13/12	02/13/17	% colculation

Limit

Result

Project: Epperson Site !

Fax: (432) 687-04\$6

P.O. Box 50685 Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Lasson

#### \$B-12 15¹ 7B10001-20 (Soil)

	····			.,					
Analyte	Rosult	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Perm	iau Basin I	hvironmer	iial Lab,	L.P.				
General Chemistry Parameters by EPA /	Standard Method	ss							
Chloride	834	5.43	mg∕kg áry	5	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Moisture	0.8	0.1	%	ŧ	P7B1308	03/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 L	y EPA Method 80	ISM							
C6-C12	ND	27.2	mg∕kg dry	1	P7131404	03/10/17	02/11/17	TPIC8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P7B1404	02/10/17	02/11/17	TPH 8015M	
Surrogate, 1-Chloronetune		95.4%	70-1	30	P7B1404	03/10/17	02/11/17	TPH 8015M	
Surrogate: o-Terphonyl		109%	70-1	30	P7B1404	02/10/17	02/11/17	TPH 8615M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	ł	(CALC)	02/10/17	02/11/17	eale	

P.O. Box 50685 Midland TX, 79710 Project Epperson Site I

Project Number: 16-0120-03 Project Manager: Mark Larson Fax: (432) 687-0456

SB-12 201

7B10001-21 (Soil)

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		Reporting							Ì
Analyte	Result	Limit	Units	Dilusion	Batch	Prepared	Analyzed	Method	Notes
						•			
	Permiss	ı Basin Eı	ivíronme	ntal Lab, L	.P.				

General Chemistry Parameters by EPA / Standard Methods

Chloride	479	1.08 mg/kg dry	ł	P7E1011		05/11/17	6PA 300.0
% Moisture	7.0	0.1 %	ì	P7B1308	02/13/17	02/13/17	% calculation

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01

Fax: (432) 687-0456

Project Manager: Mark Larson

SB-12 25' 7B10001-22 (Soil)

		Reporting		~~~					
Analyte	Result	Limit	Units	Dilution	Bach	Prepared	Analyzed	Method	Notes
	Pern	rian Basin E	duvironmer	ital Lab,	L.P.				
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	126	1.03	mg/kg dry	1	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Moisture	3.0	0.1	%.	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 I	by EPA Method 80	15M							
C6-C12	NĐ	25.8	mg∕kg dry	1	£781404	02/10/17	02/11/17	TPH 8015M	
>C12-C28	ИN	25.8	mg/kg dry	1	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C28-C35	ND	25.8	mg/kg diy	1	P7B1404	02/10/17	02/11/17	TPH 8015M	
Surrogate. 1-Chlorooctane		98.6 %	70-1	30	P7B1404	02/10/12	02/11/17	TPH 8015M	
Surrogate: a-Terphonyl		112%	70-1	30	P7B1404	02/10/17	03/11/17	TPH 8015M	
Fotal Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	(CALC)	02/16/17	02/11/37	eale	

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson Fax: (432) 687-0456

SB-14 0' 7B10001-23 (Soil)

Analyic	Result	Reporting Limit	Units	Diluñen	Batch	Prepared	Analyzed	Method	lvotes
	Peru	nian Basin F	Invironmen	tal Lab, l	lP.				
Organics by GC									
Венхене	0.0281	0.0208	mg/kg dry	20	P7B1601	02/15/17	02/15/17	EPA 8021B	
loluene	ND	0.0417	mg∕kg dry	20	P7B1601	02/15/17	02/15/17	EPA 802+B	
Ethylbenzene	ND CIN	0.0208	mg kg dry	20	2713160:	02/15/17	02/15/17	EDV 805113	
Xylene (p/m)	d/k	0.0417	mg/kg dry	20	P7B1601	02/15/17	02/15/17	E6V 8051B	
Xylene (o)	ND	0.0208	mg∕kg dry	20	P781601	02/15/17	02/15/17	EPA 802113	
Surrogato: 1,4-Difharohenzene		101%	75-1.	2.5	P7B1601	02/15/17	02/15/12	EPA 8021B	
Survegate: 4-Bromofluorobenzene		98.3 %	75-1.	25	P7B1601	02/15/17	02/15/17	EPA 8021B	
General Chemistry Parameters by El	A/Standard Method	is							
Chloride	546	1.04	mg/kg dry	1	P7B1504	02/15/17	02/16/17	EPA 300.0	
% Moisture	4.0	0.1	%	1	P7B1308	02/13/17	03/13/17	% calculation	
Iotal Petroleum Hydrocarbons C6-C	35 by EPA Method 80	15M							
06-012	ND	26.0	mg/kg dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
-C12-C28	74,4	26.0	mg/xg dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
C28-C35	ND	26.0	mg∕kg dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
imrogate: 1-Chlorooctune		96.2 %	70-1.	30	P7B1604	02/15/17	02/15/17	7PH 8015M	
invogate: o-Terphenyl		116%	70-7	30	P7B1604	03/15/17	02/15/17	TPH 801514	
otal Petroleum Hydrocarbon 26-C35	74.4	26.0	mg/kg dry	t	[CA1.C]	02/15/17	02/15/17	cale	

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site)

Project Number: 16-0120-01 Project Manager: Mark Larson Fax: (432) 687-0456

\$B-14 5' 7B18001-24 (Soll)

Analyc	Result	Reporting Limit	Units	Dilution	Batch	Proposed	Analyzed	Method	Note
	Pern	nian Basin E	Environmei	ıtal Lab, 1	L.P,				
Organics by GC									
Benzene	0.450	0.217	mg/kg dry	200	P7B1305	02/10/17	02/13/17	EPA 8021B	
Toluene	9.31	0.435	mækg dry	300	P7B1305	02/10/17	02/13/17	EPA 8021B	
Ethylbenzene	5.50	0.217	mg/kg dry	200	P7B1305	62/10/17	02/13/17	EPA 802 H)	
Xylene (p/m)	46.9	0.435	mg/ng day	200	197131305	02/10/17	02/13/17	GPA 8021B	
Xylene (0)	21.1	0.217	mg/kg dry	200	P7B1305	02/10/17	02/13/37	EPA 8021B	
Surrogate, 1.4-Difluorobenzeno		90.5 %	75-1	25	P7B1305	02/10/17	02/13/17	EPA 8021B	
Surragate: 4-Bromofluorobenzene		105 %	75-1	25	P7B13û5	02/19/17	02/13/17	EPA 80218	
General Chemistry Parameters by EP	A / Standard Method	s							
Chloride	31.3	1.09	nig/kg dry	1	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Moisture	8.0	0.1	ж	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C13	1450	272	ing/kg dry	10	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C12-C28	444	272	mg/kg dry	16	P7B1464	02/10/17	62/11/17	TPH \$015M	
>C28-C35	ND	272	mg/kg dry	10	£783404	02/10/17	02/11/17	TPH 8015M	
Surrogate: 1-Chloroocune		110%	70-7	30	P781404	02/10/17	02/11/17	TPH 8015M	
Surrogate: v-Terphonyl		104 %	70-1	3()	P7B1404	02/10/17	02/11/17	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1890	272	nigikg dry	10	[CALC]	02/10/17	02/11/57	cale	

Larson & Associates, Inc P.O. Box 50685

Midland TX, 79710

Project: Epperson Site 1 Project Number: 16-0120-01

Project Manager: Mark Larson

Fax: (432) 687-0456

SB-14 10° 7B10001-25 (Soil)

701001-20 (301)											
Anstyle	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note		
	Pern	nlan Basin k	invirenmen	tal Lab, i	LaP.						
Organics by GC											
Benzene	ND	0.0215	mg/kg dry	20	F7B1305	02/10/17	02/10/17	EPA 8021B			
Toluene	0.8671	0.0430	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B			
Ethylbenzene	6.700	0.0215	ingoig dry	20	P7B1305	02/10/17	03/10/17	EPA 8031B			
Xylene (p/m)	0.322	0.0430	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 8021B			
Xylene (0)	0.395	0.0215	mg/kg dry	20	P7B1305	02/10/17	02/10/17	EPA 802113			
Surrogate: 1,4-Difluorobenzene		88.9 %	75-1.	25	P7B1303	02/16/17	02/10/12	EPA 8031B			
Surrogate: 4-Bromofluorobenzene		94.4 %	25-1.	25	P7B1305	02/10/17	02/10/17	EPA 8021B			
General Chemistry Parameters by EP.	A / Standard Method	ls									
Chloride	10.5	1.08	mg/kg dry	ı	P7B1012	02/10/17	02/13/17	EPA 300.0			
% Moisture	7.0	0.1	%	}	P7B1308	02/13/17	02/13/17	% calculation			
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M									
C6-C12	112	26.9	mg∕kg diy	1	P7B1404	02/10/17	02/13/17	TPH 8015M			
>C12-C28	ФИ	26.9	mg/kg dry	1	P7B1404	02/10/17	02/13/17	TPH 8015M			
>C28-C35	ND	26.9	mg/kg dry)	P7B1404	02/10/17	02/13/17	TPH 8015M			
Surragute: 1-Chlavactane		96.5 %	70-1	30	P281404	03/10/17	02/13/17	TPH 8015M			
Surrogate: o-Terphenyl		107 %	70-7.		P781461	02/10/17	02/13/17	TPH 8015M			
Total Petroleum Hydrocarbon C6-C35	112	26.9	mg/kg dry	i	[CALC]	02/10/17	02/13/17	calc			

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site I

Project Number: 16-0120-01 Project Manager: Mark Latson Fax: (432) 687-0456

SB-14 15' 7B18601-26 (Soil)

		7,8310	001-26 (S611)	·····					
	•	Reporting							
Analyte	Result	Limit	Units	Dilution	Baich	Prepared	Analyzed	Method	Notes
	Pern	ian Basin I	Environment	al Lab,	L.P.				
General Chemistry Parameters by EP.	A / Standard Method	S.							
Chloride	18.3	1.03	mg∕kg dry	1	P7B1012	03/10/17	03/13/17	EPA 306.0	
% Moisture	3.0	0.1	o _f	ì	P7B1508	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	25.k	mg/kg dry	i	P7B1404	02/10/17	02/11/17	7PH 8015M	
>C12-C28	42.2	25.8	mg/kg dry	ì	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C28-C35	33.5	25.8	mg/kg dry	f	P7B1404	02/10/17	02/11/17	TPH 8015M	
Surrogate: 1-Chlorooctone		96.9 %	70-131	9	P7B1404	02/10/17	02/11/17	TPR 8015M	
Surrogato: o-Torphenyl		110%	70-13	9	P7B1404	02/10/17	02/11/17	TP11 8015M	
Total Petroleum Hydrocarbon C6-C35	75.6	25.8	mg/kg dry	ŧ	[CALC]	02/10/17	02/11/17	calc	

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson

SB-14 20'

		7810	001-27 (Soil)					····
Analyte	Resuit	Reporting Limit	Units	Ditution	Baich	Prepared	Analyzed	Method	Note
	10000	(,,0,1)	Units	(2/(disciplina	1541611	1363mc0	Miniyaco	nicitos	
	Pern	nian Basin I	Environmen	tal Lab,	LJP.				
General Chemistry Parameters by EPA / 5	Standard Method	5							
Chloride	8.08	1.06	mg/kg dry	ı	P7B1012	02/10/17	02/13/17	EPA 300.0	
% Molsture	6.0	0.1	%	l	P7B130\$	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35 by	EPA Method 80	15M							
C6-C12	ND	26.6	mg/kg dry	1	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P7B1404	03/10/17	02/11/17	TPH 8015M	
C28-C35	ND	26.6	mg/kg dry	ı	P7B1404	02/10/17	02/11/17	TPH 8015M	
Surrogute: 1-Chlorocetane	•	98.0 %	20-13	80	P7B1404	02/10/17	02/11/17	TPH 801534	
Surrogate: o-Terphonyl		113%	70-13	30	P7B1404	02/10/17	02/11/17	1PH 8015M	
Fotal Petroleum Hydrocarbon C6-C35	ND	26 6	mg/kg dry	ı	{CALC}	02/10/17	02/11/17	enle	

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Project: Epperson Site 1

Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

SB-14 25'

7B10001-28 (Soil)

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

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	122	List mg/kg dry	ı	P7E1011	05/10/17	05/11/17	EPA 300.0
% Moisture	4.0	0.1 %	1	P7B1308	02/13/17	02/13/17	% calculation

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larsen Fax: (432) 687-0456

SB-13 0'

		7B10	001-29 (Soil)						·····
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Notes
	Pern	ian Basin F	Suvironment	al Lab,	L.P.				
General Chemistry Parameters by EPA	V/Standard Method	S							
Chloride	15.5	1.08	me/kg dry	1	P7B1504	02/15/17	02/16/1?	EPA 300.0	
% Moisture	7.0	0.1	%	1	P7B130\$	02/13/17	03/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	(5M							
C6-C12	KD	26.9	mg/kg dry	1	1781604	02/15/17	02/15/17	TPH 801554	
>C12-C28	42.0	26.9	mg∕kg dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
>C28-C35	27.1	26.9	mg/kg dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
Surrogate 1-Chloropetane		93.0 %	70-130)	P7B1694	02/15/17	03/13/17	7PH 8015M	
Surrogate: o-Terphonyl		109 %	70-138		P7B1604	02/13/17	02/15/17	TPH 8015M	
Total Petraleum Hydrocarbon C6-C35	69.1	26.9	mg/kg dry	ł	(CALC)	02/15/17	02/15/17	cale	

P.O. Box 50685

Midland TX, 79710

Surrogate: 1-Chlomoctune

Total Petroleum Hydrocarbon

Surrogate: o-Terphenyl

C6-C35

Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson

> SB-13 5' 7B10001-30 (Soil)

			001 00 (00	•••					
Analyte	Resuit	Reporting Limit	Units	Dilution	Bach	Prepared	Anatyzod	Method	Notes
	Perm!	an Basin E	environme	ntal Lab, I	L.P.				
General Chemistry Parameters I	v EPA / Standard Methods								
Chloride	593	5,49	mg/kg dry		27131504	02/15/17	02/16/17	EPA 300.0	
% Moisture	9.0	0.3	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C	C6-C35 by EPA Method 801	5M							
C6-C12	(IV	27.5	mg/kg dry	:	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C12-C28	52.5	27.5	mg/kg dry	;	P7B1404	02/10/17	02/11/17	TPH 8015M	
>C28-C35	29,2	27.5	ing/kg dry	5	P7B1404	02/10/17	02/11/17	TPH 8015M	

70-130

70-130

P7B1404

P7B1404

[CALC]

03/10/17

02/10/17

62/10/17

02/11/17

02/11/17

02/11/17

TPH 8015M

7PH 8015M

çale

99.3 %

113 %

81.7

27.5 mg/kg dry

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 Larson & Associates, Inc
 Project:
 Epperson Site !
 Fax (432) 687-0456

 P.O. Box 50685
 Project Number:
 16-0120-03

 Midland TX, 79710
 Project Manager:
 Mark Larson

SB-13 10' 7B10001-31 (Soil)

		·				*******			
Į		es .							1
		Roporting							
Analyte	Roşult	Limit	Units	Dilution	Baich	Prepared	Analyzed	Method	Notes

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	481	1.08 mp/kg dry	1	P7E1011	05/30/17	05/11/17	EPA 300 0
% Moisture	7.0	01 %	1	P7B1308	02713/17	02/13/17	% calculation

Larson & Associates, Inc P.O. Box 30685 Midland TX, 79710

Project. Eppeison Site 1

Project Number: 16-0120-01 Project Manager: Mark Larson Fax: (432) 687-0456

SB-13 15' 7B1000I-32 (Soil)

			001-02 (0011)				,_,		*****
Anaiyle	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
	Perm	ian Basin I	Environment	ai Lab,	L,,P,				
General Chemistry Parameters by EP,	A/Standard Methods	\$							
Chloride	193	1.09	ang/kg dry	i	P7B1012	62/10/17	02/13/17	EPA 300.0	
% Moisture	0.8	0.1	%	1	P7B1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C3	5 by EPA Method 801	5M							
C6-C12	מא	27.2	mg/kg dry	1	87[31404	02/:0/17	02/11/17	TPH 8015M	
>C12-C28	38.2	27.2	mg/kg dry	1	P7B1404	02/10/17	02/13/17	TPH 8015M	
C28-C35	ND	27.2	mg/kg dry	i	P7B1404	02/10/17	02/13/17	7'P11 8015M	
Surrogate, 1-Chloroctane		100 %	70-130)	P781404	02/10/17	02/11/17	TPH 8015M	
Surrogute: o-Terphenyl		115%	70-13		P7B1404	02/10/17	02/11/17	TPH 8015M	
Potal Petroleum Hydrocarbon C6-C35	38.2	27.2	mg/kg dry	1	[CALC]	02/10/17	02/11/17	cato	

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Project: Epperson Site 1

Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

> SB-13 201 7B10001-33 (Soil)

Reporting Analyte Resuit Method Notes Linn Analyzed Units Dilution Batch Prepared

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride EPA 300.0 1.04 mg/kg dry P7B1013 02/13/17 02/10/17 % Maisture % 4.0 0.1 P7B1308 02/13/17 % calculation 02/15/17

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1

Project Number: 16-0120-01 Project Manager: Mark Larsen Fax: (432) 687-0456

SB-13 25' 7B10001-34 (Soit)

		7B10	001-34 (Soi	1)	.,				
Analyte	Result	Reporting Limit	Units	Dilution	Bach	Prepared	Analyzed	Method	Notes
	Pern	iian Basin L	Cavironne	ıtal Lab,	L.,P.				
General Chemistry Parameters by EPA	Standard Method	s							
Chloride	22.0	1.03	mg/kg dry	1	P781012	02/10/17	02/13/17	EPA 300.0	
% Moisture	3.0	1 0	%	í	P7H1308	02/13/17	02/13/17	% calculation	
Total Petroleum Hydrocarbons C6-C35	by EPA Method 80	15M							
C6-C12	ND	25.8	mg/kg dry	1	P7331-103	02/10/17	02/10/17	M2108 1197	
>C12-C28	ND	25.8	mg/kg dry	1	P7B1403	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	25.8	mg∕kg dry	1	P7B1403	02/10/17	02/10/17	TPH 8015M	
Surrogate: 1-Chloroactune		92.6 %	70-1	30	P7B1403	03/10/17	02/10/17	TPH 8015M	
Surrogato: o-Terphonyl		99.9 %	70-1	30	P7B1403	02/10/17	02/10/17	1791 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25 8	mg/kg dry	1	(CALC)	03/10/17	02/10/17	calc	

 Larson & Associates, Inc.
 Project: Epperson Site 1
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 P.O. Box 50685
 Project Number: 16-0120-01

 Midland TX, 79710
 Project Manager: Mark Larson

SB-10 30° 7B10001-35 (Soil)

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

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Chloride	33.2	1.12	mg/kg dry	1	P7E1011	05/10/17	05/11/17	EPA 300.0
% Moisture	11.0	0.1	%	;	P7B1308	02/13/17	02/13/17	% calculation

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Project: Epperson Site 1

Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

\$B-15 0° 7B10001-36 (Soil)

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Analyte	Resuit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
	Perm	iian Basin k	invironmen	tat Lab, l	L.P.				
General Chemistry Parameters by EPA	A / Standard Method	s							
Chloride	38.2	1.09	mg/kg dry	1	P7B1504	02/15/17	03/16/17	EPA 300.0	
% Moisture	8.0	0.3	%	i	P7B1308	02/13/17	02/13/17	% calculation	
lotal Petroleum Hydrocarbons C6-C3	5 by EPA Method 80	15M							
C6-C12	ND	27.2	mg/lig dry	1	P7B1604	02/15/17	02/15/17	TPH 8015M	
·C12-C28	46.5	27.2	ing/kg dry	Ŧ	P7B1604	02/15/17	02/15/17	TP(3 8015M	
C28-C35	ND	27.2	mg/kg dry	1	P781604	02/15/17	02/15/17	TPH 8015M	
Surogaie: I-Chloroociane		93.6 %	70-13	10	P7B1604	02/15/17	03/15/17	7711 801534	
iurogate: 0-Terphonyl		110%	70-13	•	P7B1604	02/15/17	02/15/17	TPH 801334	
fotal Petroleum Hydrocarbon C6-C35	46,5	27.2	mg/kg dry	1	(CALC)	02/15/17	02/15/17	ealc	

Project: Eppeison Site 1

Site 1

P.O. Box 50685 Midland TX, 79710 Project Number: 16-0320-01 Project Manager: Mark Earson Fax: (432) 687-0456

SB-15 5' 7B10001-37 (Soil)

		Raporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	nan Basin L	Environner	tal Lab,	L.P.				
General Chemistry Parameters by EPA /	Standard Method	<u>s</u>							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Chloride	5.46	112	mg/kg dry	1	P7B1012	02/10/17	03/13/17	EPA 300.0	
% Moisture	11.0	0.1	B/o	1	P701308	02/13/17	02/13/17	% calculation	
Potal Petroleum Hydrocarbons C6-C35 b	y EPA Method 80	15M						,	
C6-C12	RD	28.1	mg/kg dry	1	P7B1403	02/10/17	02/10/17	1791E8015M	
C12-C28	ND	28.1	mg/kg dry	1	P7031403	02/10/17	02/10/17	TPR 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P7B1403	02/10/17	02/10/17	TPH 8015M	
Surrogase: I-Chlorooctane		96.2 %	70-1	30	P781403	02/10/17	02/10/17	1PH 8015M	
Surregate, o-Terphenyl		105 %	70-1	30	P7B1403	02/10/17	02/10/17	TPH 8015M	
Fotal Petroleum Hydrocarbon C6-C35	ND	28.1	nig/kg dry	1	ICALCI	02/10/17	02/10/13	çalı	

Fax: (432) 687-0456 Larson & Associates, Inc. Project: Epperson Site 1 P.O. Box 50685 Project Number: 16-0120-01 Midland TX, 79710 Project Manager. Mark Larson

SB-15 10' 7R10001_39 (\$ain

		7B100	01-38 (So	11)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Permi	an Basin Ei	svironme	ıtal Lab, l	P.				
General Chemistry Parameters by E	PA / Standard Methods								
Chloride	ND	1.06	mg/kg dry	1	P7(01013	05/10/17	05/11/17	EPA 300.0	

0.1 %

6.0

% Moisture

02/13/17

02/13/17

% calculation

P7B1308

P.O. Box 50685 Midland TX, 79710 Project: Epporson Site 1

Project Number: 16-0120-01 Project Manager, Mark Larson

> \$B-15 15' 7B10001-39 (Soft)

		/1310	001-39 (Soil) 					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Pern	oian Basin k	Invironmen	tai Lab,	L.P.				
General Chemistry Parameters by EPA /	Standard Method	<u>s</u>							
Chloride	8.53	10,6	ing kg dry	ł	P7B1013	02/16/17	02/13/17	EPA 300.0	
% Moisture	4.0	0.1	4/3	1	0781308	02/13/17	02/13/17	% calculation	
Fotal Petroleum Hydrocarbons C6-C35 b	v EPA Method 80	15M							
C6-C12	ИN	26.0	mg/kg dry	ı	P701403	62/16/17	02/10/17	TPH 8015M	
C12-C28	CR	26.0	mg/kg dry	ì	P7B1403	02/10/17	02/10/17	TPH 8015M	
>C28-C35	ND	26.0	mg∕kg dry	1	P7B:403	02/10/17	02/10/17	TPH 8015M	
Surrogate: 1-Chloroosiune	•	98.4 %	70-7.	30	2781493	02/10/17	02/10/17	TPH 8015M	
Survagate: o-Terphenyl		106%	70-1:	80	P781403	02/10/17	02/10/17	TPH 8013M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	ı	(CALC)	02/10/17	02/10/17	calc	

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 Project: Epperson Site 1
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 P.O. 80x 50685
 Project Number: 16-0120-01
 16-0120-01

 Midland TX, 79710
 Project Manager: Mark Larson
 Mark Larson

SB-15 20' 7B10001-40 (Soil)

				,					
Analye	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzce	Method	Notes
General Chemistry Parameters by EPA		ian Basin E	Environme	ital Lab, l	P.				
General Chemistry Parameters by EFA	Standard Witthous	<u> </u>							
Chloride	ND	1.03	mg/kg dry	i	P7C1011	05/10/17	05/11/17	EPA 300.0	
% Moisture	3.6	0.1	%	ì	P7B1308	02/13/17	02/13/17	% calculation	

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Total Petroleum Hydrocarbon C6-C35

Project: Epperson Site 1 Project Number: 16-0120-01

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całc

02/10/17

Project Manager: Mark Larson SB-15 25°

		7810	001-41 (Soil)						
Analyto	Result	Reporting Limit	Units	Dilution	Bach	Prepared	Analyzed	kterhod	Notes
	Perm	ian Basin I	Saviroament	al Lab, i	L.P.				
General Chemistry Parameters by I	PA / Standard Method	S							
Chioride	4.27	1.02	mg/kg dry	}	P781013	02/10/17	02/13/17	EPA 300.0	
% Moisture	2.0	0 1	%	}	P701308	02/13/17	03/13/17	% calculation	
Total Petroleum Hydrocarbons C6-	235 by EPA Method 80	15M							
C6-C12	ND	25.5	mg∕kg dry)	P7B1403	02/10/17	02/10/17	TPR 8015M	
>C12-C28	ND	25.5	mg/kg dry	,	P7B1403	02/10/17	02/10/17	TPH \$015M	
>C28-C35	МD	25.5	mg/kg dry	1	P7B1403	02/10/17	02/10/17	TFR 8015M	
Surrogute: 1-Chlomociane		94.0 %	70-13	9	P2B1403	02/10/17	02/10/17	TPH 801531	
Surrogate: o-Terphanyl		100 %	70-13	9	1781403	02/10/17	02/10/17	TPH 8015M	

25.5 mg/kg dry

ND

[CALC] 02/10/17

Larson & Associates, Inc P.O. Box 50685 Midland TX, 79710

Project: Epperson Site 1 Project Number: 16-0120-01

Project Manager: Mark Larson

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

Anaiyte	Result	Reporting Limit	Units	Spike Level	Source Result	%rec	%REC Limits	RPI)	RPI) Limit	Notes
Batch P7B1305 - General Preparatio	n (GC)									
Blank (P7B1305-BLK1)				Prepared &	Analyzed:	02/10/17	(, , , , , , , , , , , , , , , , , , ,			
Renzeue	NO	0.00100	mg/sg wet	• • • •						
Toluene	ND	0.06203	•							
Ethylbenzenc	CIN	0.00100	•							
Xyiene (pán)	ND	0.00200								
Xylene (o)	NO	0.00100	•							
Surrogate, 1,4-Difluorahenzone	0.0662			0.0600		110	75-125			
Surrogate: 4-Bromofluorobenzene	0 0649			0.0600		108	25-125			
LCS (P7B1305-BS1)				Prepared &	: Analyzed:	02/10/17				
Benzene	0.0904	0.00100	low g∧ge:	0.100	i, si e zii.	90.4	70-130			
Toluene	0.0953	0.00200	"	0.100		95.3	70-130			
Ethylbenzene	0.133	0.00100		0.100		111	76-130			
Xylene (pán)	0.202	0.00200	·	0.200		101	70-130			
Xylenc (o)	0.101	0.00100	*1	0.100		101	70-130			
Surrogate 1.4-Difluorobenzene	0,0666		"	0.0600		" iii	75-125			
Surrogate: 4-Bromofluorobenzene	0.0663		t-	0.0690		m	75-125			
LCS Dup (P7B1305-BSD1)				Prepared &	: Analyzed:	02/10/17				
Benzene	0.0913	0.00100	mg/kg wer	0.100	•	91.3	70-130	1.03	20	
Tolucae	0.0983	0.00200		0.160		98.3	70-130	3.15	20	
Ethylbenzene	0.137	0.00100	w	0.100		117	70-150	5.33	20	
Xylene (p/m)	0.208	0.00200	r	0.200		104	70-130	3.07	20	
Xylene (o)	0.103	0.00100	11	0.100		103	70-130	1.78	20	
Surrogate: 4-Bromofluorobenzene	0.0461		"	0.0690		110	75-125			
Surrogate: 1,4-Diffuorohenzene	0.0683		y.	0.0690		114	78-725			
Matrix Spike (P7B1305-MS1)	Sou	rce: 7B06003	-02	Propared &	: Analyzed:	02/10/17				
Bonzene	0.0847	0.00110	mg/kg dry	0.110	0.00229	75.0	80-130			
Toluene .	0.0671	0.00220		0.110	0.00589	55.7	80-120			
Ethythenzenc	0.0523	0.00110	e	0.110	0.00591	42.2	80-120			
Xylenc (p/m)	0.0904	0.08220	6	0.220	0.0221	31.1	80-120			
Xylene (6)	0.111	0.00110	4.	0.110	0.0636	43.4	80-136			
Surrogate, 4-Bromofinavokenzene	0.0629		.,	0.0639		95.4	75-125			
Surragute: 1,4-Diffrarahenzene	0.0695		v	0.0659		103	78-123			

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site 1 of Number: 16-0120-01

Project Number: 16-0120-01 Project Manager: Mark Larson

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

Analyte	Result	Reporting Limit	Units	Spike Lovel	Source Result	%REC	%REC Limits	RPD	RPD Linus	Notes
Batch P7B1305 - General Preparation (C	SC)						*****			
Matrix Spike Dup (P7B1305-MSD1)	Sour	ree: 7B06003	-02	Prepared &	Analyzed:	02/10/17				
Benzene	0380.0	0.00110	mg/kg dry	0.110	0.00229	78.0	80-120	4,(X)	20	
Foluene	0.0717	0.00220	**	0.110	0.00589	59.8	80-120	7.22	50	
ithylbenzene	0.0573	0.000110		0.110	0.00391	46.8	80-120	10.2	20	
Cylone (p/m)	0.0919	0.00220		0.220	0.0221	31.7	80-120	2.07	20	
(ylone (o)	0.118	0.00110	ч	0.110	0.0636	49.3	80-130	12.8	20	
Surrogate: 1,4-Difluorobenzene	0.0680		н	0.0659		103	25-125			
arrogate. 4-Bromoftworobeazene	0.0651		"	0.0659		98 7	25-125			
Batch P7B1601 - General Preparation (C	GC)									
Blank (P7B1601-BLK1)				Prepared &	: Analyzed:	02/15/17				
Benzene	ND	0.00100	mg/kg wet							
Coluene	RD	0.00200	•							
Ethylbenzene	ИŊ	0.00100	**							
(yiene (p/m)	CIN	0.00200								
(ylene (o)	ИD	0.00100								
Surrogate, 1,4-Difluorobenzene	0.0625		*1	0.0600		104	75-125			
Surrogate. 4-Bromofluorobencene	0.0560		r,	0.0600		110	25-125			
.CS (P7B1601-BS1)				Prepared &	k Analyzed:	02/15/17				
Benzene	0.0848	0.00100	mg/kg wet	0.100		84.8	70-130			
bluene	0.0918	0.00200		0.100		91.8	70-130			
thylbenzene	0.107	0.00100	+1	0.160		107	70-130			
(yiene (phu)	0.191	0.00200	10	0.260		95.7	70-130			
(yłene (a)	0.0939	0.00100	**	0.100		93.9	70-130			
iurrogate: 1,4-Difluorobenzene	0.0666		.,	0.0600		116	75-728			
arragate, 4-Bromofluorabenzeae	0.0683		-,	0 0600		114	75-125			

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Project Sumber: 16-0120-01
Project Manager: Mark Larson

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	CES	RPD Limit	Notes
Batch P7B1601 - General Preparation (GC)										
LCS Dup (P7B1601-BSD1)				Prepared &	Analyzed.	02/15/17				
Benzene	0.088;	0.00100	mg/kg wet	0.100	.*	88 1	70-:30	3.92	20	
Toluene	0.0955	0.00300	· ·	0 100		95.5	70 130	3.95	20	
Ethylbenzene	0.115	0.00100	**	0.100		115	70-130	7.78	20	
Xylone (p/m)	0.203	0.00200		0.200		162	70-F30	5.99	20	
Xylone (o)	0.104	0.00100	3+	0.:00		104	70-130	9.80	20	
Stavogate: 1,4-t)ifluorobenzene	0.0657		h	0.0600		108	25-125			
Surrogate: 4-Bromofinorobenzene	0.0689			0.0600		115	75-125			
Matrix Spike (P7B1601-MS1)	Sou	rce: 7B10001	·23	Prepared &	: Analyzed:	02/15/17				
Венгене	0.0615	0.0208	mg/kg dry	0.104	0.0281	32.0	80-120			QM-0
Toluene	0.0454	0.0417	P:	0.104	0.0221	22.4	80-120			QM-0
Ethylbenzene	0.0890	0.0208	,	0.104	ИD	\$6.6	80-120			QM-0
Xylene (p/m)	0.0608	0.0417		0.208	0.0321	13.8	\$0-130			QM-0
Xylene (o)	0.0427	0.0208		0.104	ND	41.0	80-120			QM-0
Surraguia: 4-Bromofhioralienzena	0.0646		4	0.0625		103	75-125			
Surrogate: 1.4-Difluorobenzene	0.0628		*	0.0625		100	25-125			
Matrix Spike Dap (P7B1601-MSD1)	Sou	rce: 7B10001	~2 3	Prepared &	: Analyzed:	02/15/17				
Bonzene	0.0498	0.0208	mg/kg dry	0 104	0.0281	20.8	\$0-120	42.4	20	QM-0
l'oluene	0.0413	0.0417		0 104	0.0221	18.4	80-130	19.6	20	QM+U
Ethylbonzene	0.0373	0.0208	•	0.104	ND	35.8	80-120	45.0	20	QM-0
Kylone (p/m)	0.0602	0.0417		0.208	0.0321	13.5	80-120	2.20	20	QM-C
Kylene (o)	0.0290	0.0208	f	0.104	ND	27.8	80-120	38.4	20	QM-0
Surrogute. 1.4-Diffuorohenzene	0.0621		*	0.0625		99.3	75-125			
inrogue, 4-Bromoftworobenzene	0.0603		**	0.6625		96,5	73-125			

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Project: Epperson Site 1 2 Number: 16-0120-01 Fax: (432) 687-0456

Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

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	WREC Limits	RPD	RPD Limit	Notes
Batch P7B1012 - *** DEFAULT PREP ***	····									hands de la grande d
Blank (P7B1012-BLK1)				Prepared: (02/10/17 A	knalyzed: 02	/13/17			
Chloride	CIN	1.00	mg/kg wet							
LCS (P7B1012-BS1)				Prepared ()2/10/17 A	Analyzed: 02	/13/17			
Chloride	382	1.00	mg/kg wet	400		95.4	80-130			
LCS Dup (P7B1012-BSD1)				Prepared: (02/10/17 /	Analyzed: 02	(1)3/17			
Chloride	383	1.00	mg/kg wet	400		95.9	80-120	0.442	30	
Duplicate (P7B1012-DUP1)	Sou	rce: 7B18001	-02	Prepared:	02/10/17 /	Analyzed: 02	2/13/17			
Chloride	849	11.6	mg/kg dry	- ,	855			0.683	20	
Duplicate (F7B1812-DUP2)	Sogn	rce: 7B10091	-20	Prepared:	02/10/17 /	Analyzed: 02	2/13/17			
Chloride	838	5.43	mg/ng dry		834	•		0,462	20	
Matrix Spike (P7B1012-MS1)	Sou	rce: 7B10001	-02	Prepared:	02/10/17 /	Analyzed: 02	2/13/17			
Chloride	1\$60	11.6	mg/kg dry	\$8:	835	121	80-130	•		QM-01
Batch P7B1013 - *** DEFAULT PREP ***										
Blank (P7B1013-BLKI)			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Prepared:	02/10/17 /	Analyzed: 0	2/13/17			
Chloride	מא	1.00	mg/kg wet			•				
LCS (P7B1013-BS1)				Prepared	02/10/17	Analyzed: 0	2/13/17			
Chloride	409	1.00	mg/kg wet	100	02.70.7.	103	80-120			
LCS Dup (P7B1013-BSD1)				Prenared	02/10/17	Analyzed: 0	2/13/17			
Chloride	455	1.00	тр/ке шег	400	116-10/17 2	114	80-120	10.6	20	

Project: Epperson Site !

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P.O. Box 50685 Midland TX, 79710 Project Number: 16-0120-01 Project Manager: Mark Larson

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	RPO Limit	Notes
Batch P7B1013 - *** DEFAULT PREP ***										
Duplicate (P7B1013-DUP1)	Sour	ce: 7B30003	•01	Prepared: 0	02/10/17 A:	nalyzed: 02	/13/17			
Chlorida	19200	66.7	mg/kg dry		18900			1.67	20	
Duplicate (P7B1013-DUP2)	Sour	ce: 7B10004	-01	Prepared; (02/10/17 A:	nalyzed: 02	/(3/)7			
Chloride	374	1.10	mg/kg dry		767			0.896	30	
Matrix Spike (P7B1013-MS1)	Sour	ce: 7B10003	-01	Prepared: (02/10/17 A	nalyzed: 02	2/13/17			
Chloride	21000	66.7	mg∆ig dry	1330	18900	154	80-120			QM-07
Batch P7B1308 - *** DEFAULT PREP ***										
Blank (P7B1308-BLK1)				Prepared &	: Analyzed:	02/13/17				
% Moisture	ND.	0.1	%		-					
Duplicate (P7B1308-DUP1)	Sour	ee: 7B10001	-26	Prepared &	k Analyzed:	02/13/17				
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P7B1308-DUP2)	Sour	e: 7B10002	-12	Prepared &	Analyzed:	02/13/17				
% Moisture	5.0	0.1	%		5.0			0.00	20	
Batch P7B1504 - *** DEFAULT PREP ***										
Blank (P7B1504-BLK1)				Propared:	02/15/17 A	nalyzed: 02	2/16/17			
Chleride	ND	1.00	mg∕kg wel	- '	•	* * * * * * * * * * * * * * * * * * * *				
LCS (P7B1504-BS1)				Prepared. (02/15/17 A	nalyzed, 03	2/16/17			
Chloride	398	1.00	mg/kg wei	400	•	99.4	80-120			

Project: Epperson Site I

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P.O. Box 50685 Midland TX, 79710

Project Number: 16-0120-01 Project Manager: Mark Larson

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	RPO Lamit	Notes
Batch P7B1504 - *** DEFAULT PREP ***		·····								
LCS Dup (P7B1504-BSD1)		•		Prepared: (02/15/17	Analyzed: 02	2/16/17			
Chloride	414	1.00	mg∕kg wet	400	VIII 107 1 1 1	104	80-120	4.00	20	
Duplicate (P7B1504-DUP1)	Sour	ce: 7B10001	-01	Prepared: (02/[\$/17].	Analyzed: 02	2/16/17			
Chloride	2960	27.2	mg/sg dry	•	2970	•		0.275	20	
Duplicate (P7B1504-DUP2)	Sour	ce: 7B10001	-17	Prepared: 0	02/15/17	Analyz¢d: 00	2/16/17			
Chioride	8.65	1.04	mg/kg diy		8.55	·		1.09	20	
Matrix Spike (P7B1504-MS1)	Sour	ce: 7B10001	-01	Prepared: (02/15/17	Analyzed: 02	2/16/17			
Chloride	4290	27.2	mg/kg dry	1090	2970	121	80-120			
Batch P7E1011 - *** DEFAULT PREP ***										
Blank (P7E1611-BLK1)				Prepared: (05/10/17	Analyzed: 0:	5/11/17			
Chloride	GM	1.00	mg/kg wei			- 11. 11				
LCS (P7E1011-BS1)				Prepared: (0\$/10/17	Analyzed: 0:	5/11/17			
Chloride	408	1.00	ing kg wel	400		102	80-120			
LCS Dup (P7E1011-BSD1)				Prepared:	05/10/17	Analyzed: 0	5/11/17			
Chloride	408	1.00	mg/kg wet	400		102	80-120	0.143	20	
Duplicate (P7E1011-DUP1)	Sour	ce: 7B10001	-19	Prepared:	05/10/17	Analyzed: 0	5/11/17			
Chloride	1720	11.8	mg/kg dry		1730			0.921	20	
DupBcate (P7E101)-DUP2)	Sou	ee: 7B10002	-05	Prepared:	05/10/17	Analyzed: 0	5/11/17			
Chloride	ND		mg/kg dry		ND				30	

Project: Epperson Site I

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P.O. Box 50685 Midland TX, 79710 Project Number: 16-0120-01 Project Manager: Mark Larson

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

				*******				^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
		Reporting		Spike	Source		%REC		RPD	
Analyse	Result	Limit	Units	Level	Rosalt	SKREC	Limits	RPC	Limit	Notes

Batch P7E1011 - *** DEFAULT PREP ***

Matrix Spike (P7E1611-MSI) Chloride

Source: 7B10001-19 3840 13.8 mg/kg dry

Prepared: 05/10/17 Analyzed: 05/11/17

1180 1730 94.1 \$6-12

P.O. Box 50685 Midland TX, 79710 Project: Epperson Site I Number: 16-0120-01 Pax: (432) 687-0456

Project Number: 16-0120-01 Project Manager: Mark Lurson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Analyic	Rosult	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7B1403 - TX 1005										
Blank (P7B1403-BLK1)				Prepared &	Analyzed:	02/10/17				
C6-C12	ND	25.0	mg/kg wei	`						
>C12-C28	MD	25.0	"							
>C28-C35	В	25.0	4							
Surrogate, 1-Chloroactane	89.8		^	100		89.8	70-130			
Surrogate, a-Teephonyl	50.0		*•	\$0.0		100	20-130			
LCS (P7B1403-BS1)				Prepared &	e Analyzed:	02/10/17				
C6-C12	806	25.0	mg/kg wet	1000		80.6	75-125			
>C12-C28	858	25.0	4	100(1		85.8	75-125			
Surrogate: 1 Chloroactane	n_4		ü	100		114	70-130			
Surrogate, o-Terphenyl	46.8		••	\$0.0		93.5	70-130			
LCS Dup (P7B1403-BSD1)				Prepared &	& Analyzed:	02/10/17				
C6-C12	793	25.0	mg/kg wei	1000	. ,	79.3	75-125	1.67	20	
>C12-C28	784	25.0	**	3 000		78.4	75-125	9.09	20	
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: a-Terphenyl	40.8		•	30.0		81.5	70-130			
Matrix Spike (P7B1403-MS1)	Sour	ce: 7B10002	!-18	Propared:	02/10/17 A	nalyzed: 0	2/11/17			
C6-C12	\$46	26.3	mg/kg dry	1050	ND	80.3	75-125			
>C13-C28	889	26.3	1/	1050	ИD	84.5	75-135			
Surregate: 1-Chloroactane	130		h	105		123	70-130			
Surrogato: a Terphenyl	54.5			32.6		104	70-130			
Matrix Spike Dup (P7B1463-MSDI)	Sour	ce: 7B10002	2-18	Prepared:	02/10/17 A	malyzed: 0	2/11/17			
C6-C12	854	26.3	mg/kg dry	1050	ND	81.1	75-125	0.931	20	
>C12-C28	872	26.3	,,	1050	ND	82.9	75-125	1.90	20	
Surrogate 1-Chloroactone	120		42	103		114	20-130			
Surragate, o-Terphonyl	36.1		10	52.6		102	70-136			

P.O. Bex 50685

Midland TX, 79710

Project: Epperson Site I

Project Number: 16-0120-01

Fax: (432) 687-0456

Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Linits	Spike Levet	Source Result	%REC	%REC Limits	CITS	RPD Limit	Notes
Batch P7B1404 - TX 1605					· · · · · · · · · · · · · · · · · · ·	************	**************************************			
Blank (P7B1404-BLK1)				Prepared &	Analyzed	02/10/17				
C@-C13	KID	25.0	mg/kg wei							•
>C12-C28	ND	25.0								
>C28-C35	מא	25.0	41							
Surrogate: 1-Chloroactone	92.1		4	160		92.1	70-130			
Surrogate: o-Terphenyl	53.8		ņ	30.0		108	20-130			
LCS (P7B1404-BS1)				Prepared &	: Analyzed:	02/10/17				
C6-C12	1130	25.0	mg/kg wei	1000	W. 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	113	75-125			
>C12-C28	1060	25.0		1000		106	75-125			
Surrogate: I-Chloropetane	113			100		115	70-130			
Surrogato: v-Terphenyl	50.3		"	30.0		113	70-130			
LCS Dup (P7B1464-BSD1)				Prepared &	Apalyzed:	02/10/17				
C6-C12	1190	25.0	mg/kg wet	1000		119	75-125	4.90	20	
>C12-C28	1090	25.0		1000		109	75-125	3.47	20	
Surragenez 1-Chlorooctane	107		2*	100	•	102	20-130			
Surrogate: a-Terphonyl	50.5		Ŀ	50.0		101	70-130			
Matrix Spike (P7B1404-MS1)	Sourc	e: 7B10001	-32	Prepared: (12/10/17 A:	nalyzed, 01	2/11/17			
06-012	1330	27.2	mg/kg dry	1090	ND	122	75-125			
>C12-C28	1330	27.2	6	1090	38.2	139	75-125			
Surragate: 1-Chlorocetone	141		,,	109		130	70-130			
Surroguie, o-Terphenyl	68.7			54.3		126	70-130			
Matrix Spike Dup (P7B1404-MSD1)	Sourc	e: 7B10001	-32	Prepared: (32/10/17 A	nalyzed: 0	2/11/17			
06-013	1330	27.2	mg/kg dry	1090	ND	123	75-125	0.548	20	
·C12-C38	1380	27.2	"	1090	38.2	123	75-125	3.72	20	
Surrigate. 1-Chlamoctane	132		er.	109		117	70-130			
iurrogate: o Terphenel	64.7		15	34.3		119	70-730			

Project Epperson Site 1 Project Number: 16-0120-01 Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 16-0120-01 Project Manager: Mark Larson

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	RPIX	RPD Lima	Notes
Batch P7B1604 - TX 1005		~~~								
Blank (P7B1604-BLK1)				Prepared &	Analyzed:	02/15/17				
C6-C12	מא	25.0	mg⁄kg wet	·						
>C12-C28	ND	25.0	g:							
>C28-C35	ND	25.0	u							
Surrogate: 1-Chlorooctune	79 6		4	100		79.6	70.130			
Surrogate: a-Terphonyl	44.8		14	50.0		89.7	79.130			
LCS (P7B1604-BS1)				Prepared &	Analyzed:	02/15/17				
C6-C12	1110	35.0	mg/kg wet	1000	eli sene ce	[11]	75-125			
C12-C28	1060	25.0		:000		106	75-125			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	48 5		"	50.0		92.0	70-130			
LCS Dup (P7B1604-BSD1)				Prepared &	. Analyzed:	02/15/17				
C6-C12	1110	25,0	mg/kg wet	1000		111	75-125	0.465	20	
+C12-C28	1060	25.0	ч	1000		106	75-125	0.339	20	
Surrogate 1-Chloronetone	97.9		*/	100		97,9	20-130			
Surrogate o-Terphonyl	45.2		"	50.0		90.3	20-130			
Duplicate (P7B1604-DUPJ)	Sou	rce: 7B10002	2-13	Prepared &	: Analyzed:	: 02/15/17				
C6-C12	ND	25.3	mg/kg diy	•	ND				20	
>C12-C28	ND	25.3			SD				30	
Surrogate: 1-Chloriociane	963	**	u	101		953	70-130			
Surroguté: o-Terphenyl	54.2		**	30.5		107	20-130			

Lerson & Associates, Inc.

Project: Epperson Site 1

Project Number: 16-0120-01

Midland TX, 79710

Project Manager: Mark Larson

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD recovery.	The batch was accepted based on acceptable LCS
BULK	Samples received in Bulk soil containers	
DEF	Analyte DETECTED	
ND	Analyte NOT DETECTED at or above the reporting limit	
NR	Not Reported	
qi2.	Sample results reported on a dry weight basis	
RPD	Rolative Percent Difference	
LCS	Laboratory Control Spike	
MS	Matrix Spike	
Deto	Danticate	

Report Approved By:	Date:	5/16/2017
Brent Barron, Laboratory Director/Technical Director		
This material is intended only for the use of the individual (s) or e information that is privileged and confidential.	intity to whom it is addre	ssed, and may contain
If you have received this material in error, please notify us immed	Eately at 432-686-7235.	

Permian Basin Environmental Lab, L.P.

The results in this repart apply to the compress unadeped in accordance with the samples reconcert in the taborators. This analytical report must be reproduced in its entirety with scriber approval of Perman Basia Environment (Lab).

7 610001 507 N. Marienfeld, Ste. 200 | DATE: 2-10-2017 Midland, TX 7970i PO #: LAB WORK ORDER #:______

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