

**2RP-3872**  
**REMEDIATION REPORT**  
**Nash Draw Tank Battery #15 & #33**  
**Eddy County, New Mexico**

LAI Project No. 16-0108-04

March 23, 2017

Prepared for:

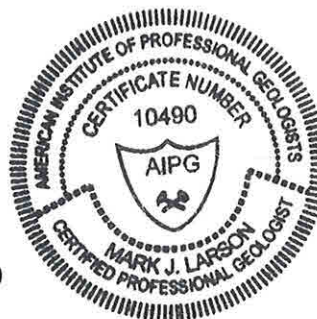
XTO Energy, Inc.  
500 W. Illinois Ave., Suite 100  
Midland, Texas 79707

Prepared by:

Larson & Associates, Inc.  
507 North Marienfeld Street, Suite 205  
Midland, Texas 79701

  
\_\_\_\_\_  
Mark J. Larson, P.G.

Certified Professional Geologist #10490



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## 1.0 INTRODUCTION

Larson & Associates, Inc. (LAI) has prepared this report on behalf of XTO Energy, Inc. (XTO) for submittal to the New Mexico Oil Conservation Division (OCD) District 2, in Artesia, New Mexico and U.S. Bureau of Land Management (BLM) in Carlsbad, New Mexico, to document soil remediation at the Nash Draw #15 & #33 tank battery (Site). The Site is located in Unit D (NW/4, NW/4), Section 13, Township 23 South, Range 29 East in Eddy County, New Mexico. The geodetic position is North 32° 18' 43.87209" and West 103° 56' 43.61176". Figure 1 presents a topographic map. Figure 2 presents an aerial map.

### 1.1 Background

On June 21, 2016, LAI personnel used a Terraprobe® direct-push rig to collect soil samples at five (5) locations (DP-04-01 through DP-04-05). Soil samples were collected between ground surface and approximately four (4) feet below ground surface (bgs). A background sample was not collected due to close proximity to the playa lake (Salt Lake). The laboratory analysis and initial C-141 were submitted to OCD which assigned remediation permit number 2RP-3872, on September 8, 2016.

On November 7, 2016, LAI, on behalf of XTO, submitted a plan OCD District 2 and BLM for approval to remediate impacts to soil based on laboratory analysis of soil samples collected on June 21, 2016. On November 10, 2016, OCD District 2 approved the remediation plan. Appendix A presents the OCD approval.

### 1.2 Physical Setting

The physical setting is as follows:

- Elevation is approximately 2,987 feet above mean sea level (AMSL);
- The Site is located on an island that is surrounded on all sides by a playa lake (Salt Lake); Surface geology is comprised of unconsolidated Holocene to mid- Pleistocene-age eolian and piedmont-slope deposits that are approximately 80 feet thick according to a log from a nearby well;
- The Triassic-age Chinle formation of the Dockum group underlies the unconsolidated deposits and is comprised of interbedded sand, clay, and mudstone;
- According to State of New Mexico Office of the State Engineer (NMOSE) records a fresh water well is located about 1.5 miles south in Unit J (NW/4, SE/4), Section 24, Township 23 South, Range 29 East with groundwater reported at about 54 feet bgs.

### 1.3 Recommended Remediation Action Levels

Recommended remediation action levels (RRAL) were calculated for benzene, BTEX and TPH based on the following criteria established by the OCD in "Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993":

Criteria	Result	Score
Depth-to-Groundwater	50 - 99 feet	10
Wellhead Protection Area	No	0

Distance to Surface Water Body	<200 Horizontal Feet	20
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The following RRAL apply to the release for ranking score: 30

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 100 mg/Kg

## 2.0 REMEDIATION

Soil remediation was performed between November 16, 2016 and December 15, 2016, according to the plan approved by OCD District 2 on November 10, 2016. SDR, under supervision from LAI, excavated soil from the area of DP-04-01 measuring about 20 x 25 feet to about 2 feet bgs. SDR excavated soil from the area of DP-04-02 measuring about 40 x 45 feet to about 4 feet bgs. Soil samples were collected from the excavation sidewalls and analyzed by Permian Basin Environmental Lab (PBEL) for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA SW-846 Method 8020B and TPH by EPA SW-846 Method 8015 including GRO (C6 – C12), DRO (>C12 – C28) and ORO (>C28 – C35). Additional soil was excavated from the south side of the excavation and the laboratory reported benzene, BTEX and TPH in the final confirmation samples below the RRAL of 10 mg/Kg, 50 mg/Kg) and 100 mg/Kg, respectively. A 20 mil thickness liner was placed in the bottom of the excavation at DP-04-02. The excavation above the liner was filled with caliche. SDR excavated soil from the area of DP-04-03 measuring about 20 x 40 feet to about 2 feet bgs. Soil was excavated at DP-04-04 from an area measuring approximately 15 x 20 feet to approximately 4 feet bgs. PBEL analyzed soil samples from the sidewalls BTEX and TPH using the methods described above. Additional soil was excavated from the west side of the excavation and the laboratory reported benzene, BTEX and TPH in the final confirmation samples below the RRAL of 10 mg/Kg, 50 mg/Kg) and 100 mg/Kg, respectively. A 20 mil thickness liner was placed in the bottom of the excavation at DP-04-04. The excavation above the liner was filled with caliche. SDR excavated soil from the area of DP-04-05 measuring about 10 x 10 feet to about 1 foot bgs. The excavations were filled with caliche.

Approximately 613 cubic yards of contaminated soil was disposed at Lea Land Landfill, LLC. Table 2 presents the confirmation soil sample analytical data summary. Figure 3 presents the remediation areas. Appendix B presents the confirmation sample laboratory reports. Appendix C presents photographs. Appendix D presents the waste manifests. Appendix E presents the initial and final C-141.

## 3.0 CONCLUSIONS

Soil was remediated according to the remediation plans approved by OCD District 2. XTO requests no further action for 2RP-3872.

## Tables

Table 1

2RP-3872

## Investigation Soil Sample Analytical Data Summary

XTO Energy, Inc., Nash Draw Tank Battery 15 and 33

Unit D (NW/4, NW/4), Section 13, Township 23 South, Range 29 East

Eddy County, New Mexico

Location	Depth (Feet)	Collection Date	Status	C6 - C12 (mg/Kg)	>C12 - C28 (mg/Kg)	>C28 - C35 (mg/Kg)	TPH (mg/Kg)
OCD RRAL: 100							
DP-04-01	0 - 1	6/21/2016	Excavated	157	650	<139	807
	1 - 2	6/21/2016	Excavated	165	635	92.4	892.4
	2 - 3	6/21/2016	In-Situ	<29.1	<29.1	<29.1	<29.1
	3 - 4	6/21/2016	In-Situ	<29.4	<29.4	<29.4	<29.4
DP-04-02	0 - 1	6/21/2016	Excavated	2,120	14,400	1,780	18,300
	1 - 2	6/21/2016	Excavated	3,250	17,100	2,270	22,700
	2 - 3	6/21/2016	Excavated	2,940	16,400	2,020	21,360
	3 - 4	6/21/2016	Excavated	2,460	11,900	1,650	16,000
DP-04-03	0 - 1	6/21/2016	Excavated	306	7,160	1,040	8,506
	1 - 2	6/21/2016	Excavated	<28.7	<28.7	<28.7	<28.7
	2 - 3	6/21/2016	In-Situ	96.8	1,770	216	2,082.80
	3 - 4	6/21/2016	In-Situ	28.9	30.5	<28.7	59.4
DP-04-04	0 - 1	6/21/2016	Excavated	189	20,200	3,180	23,569
	1 - 2	6/21/2016	Excavated	<137	5,080	916	6,000
	2 - 3	6/21/2016	Excavated	303	6,110	932	7,340
	3 - 4	6/21/2016	Excavated	287	4,140	584	5,101
DP-04-05	0 - 1	6/21/2016	Excavated	<26.6	200	52.3	252.4

Table 1

2RP-3872

## Investigation Soil Sample Analytical Data Summary

XTO Energy, Inc., Nash Draw Tank Battery 15 and 33

Unit D (NW/4, NW/4), Section 13, Township 23 South, Range 29 East

Eddy County, New Mexico

Location	Depth (Feet)	Collection Date	Status	C6 - C12 (mg/Kg)	>C12 - C28 (mg/Kg)	>C28 - C35 (mg/Kg)	TPH (mg/Kg)
OCD RRAL: 100							
	1 - 2	6/21/2016	In-Situ	--	--	--	--
	2 - 3	6/21/2016	In-Situ	--	--	--	--
	3 - 4	6/21/2016	In-Situ	--	--	--	--

Notes: laboratory analysis performed by Permian Basin Environmental Lab, Midland, Texas, by EPA SW-846 method 8015M (TPH)

Depth in feet below ground surface (bgs)

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

RRAL: Remediation action level calculated from OCD guidance document (August 13, 1993)

P: analysis pending



Table 2

2RP-3872

## Confirmation Soil Sample Analytical Data Summary

XTO Energy, Inc., Nash Draw Tank Battery 15 and 33

Unit D (NW/4, NW/4), Section 13, Township 23 South, Range 29 East  
Eddy County, New Mexico

Location	Sidewall	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	>C12 - C28 (mg/Kg)	>C28 - C35 (mg/Kg)	TPH (mg/Kg)
OCD RRAL: 10 50 100										
DP-04-02	North	2	11/15/2016	In-Situ	<0.00122	<0.00854	<30.5	<30.5	<30.5	<30.5
	East	2	11/15/2016	In-Situ	<0.00116	<0.00814	<29.1	<29.1	<29.1	<29.1
	West	2	11/15/2016	In-Situ	<0.00116	<0.00814	<29.1	<29.1	<29.1	<29.1
	South	2	11/15/2016	Excavated	<0.00116	<0.00814	<29.1	143	89.2	232.2
		2	11/21/2016	In-Situ	--	--	<28.4	<28.4	<28.4	<28.4
DP-04-04	North	2	11/15/2016	In-Situ	<0.00118	<0.00824	<29.4	<29.4	<29.4	<29.4
	East	2	11/15/2016	In-Situ	<0.00114	<0.00341	<28.4	<28.4	<28.4	<28.4
	West	2	11/15/2016	Excavated	<0.00116	<0.00814	<29.1	105	46.9	151.9
		2	11/21/2016	In-Situ	--	--	<28.7	<28.7	<28.7	<28.7
	South	2	11/15/2016	In-Situ	<0.00114	<0.00341	<28.4	<28.4	<28.4	<28.4

Notes: laboratory analysis performed by Permian Basin Environmental Lab, Midland, Texas, by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH)

Depth in feet below ground surface (bgs)

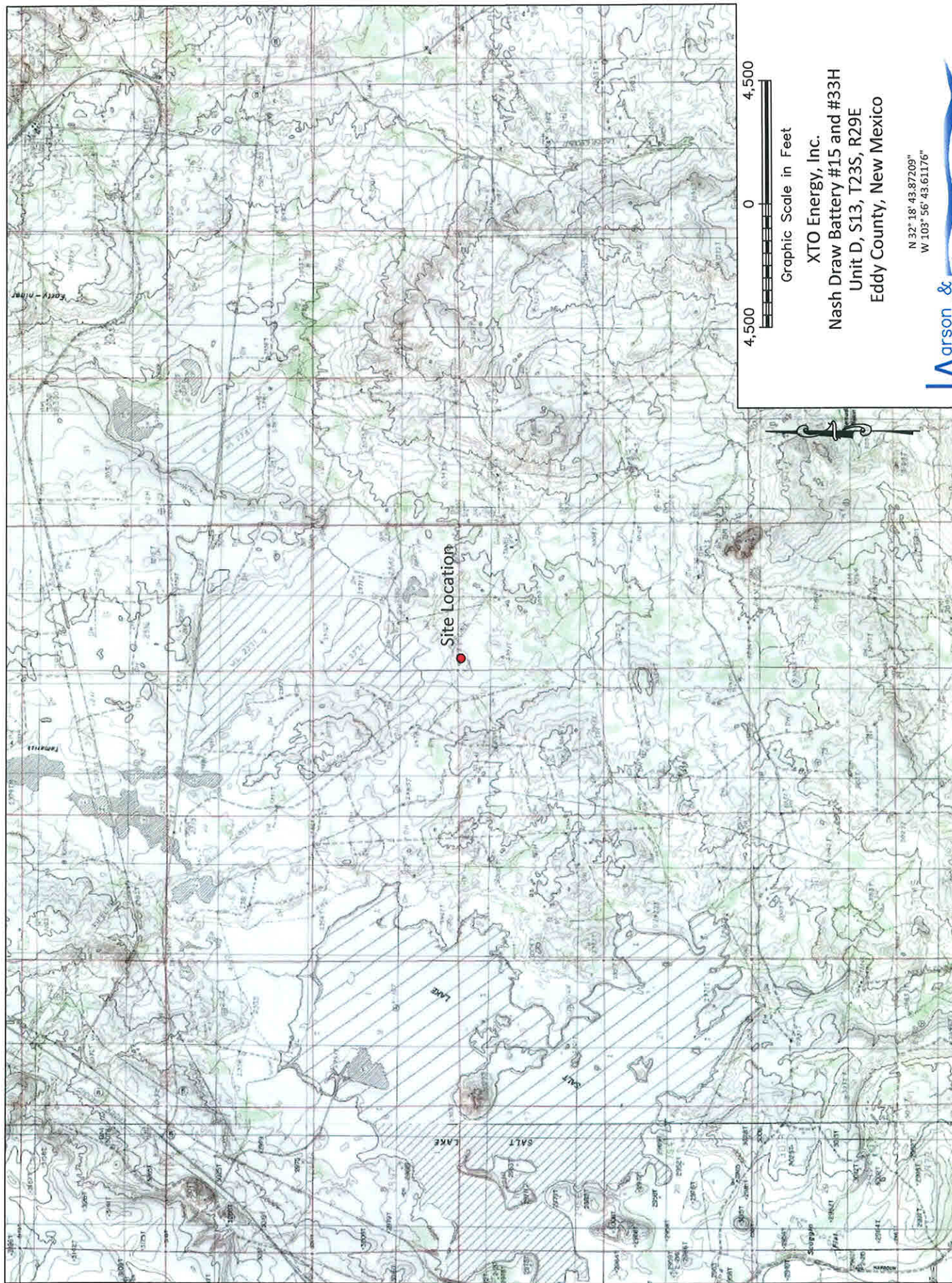
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

RRAL: Remediation action level calculated from OCD guidance document (August 13, 1993)

P: Denotes laboratory results pending

## Figures





Graphic Scale in Feet

XTO Energy, Inc.  
 Nash Draw Battery #15 and #33H  
 Unit D, S13, T23S, R29E  
 Eddy County, New Mexico

N 32° 18' 43.87209"  
 W 103° 56' 43.61176"

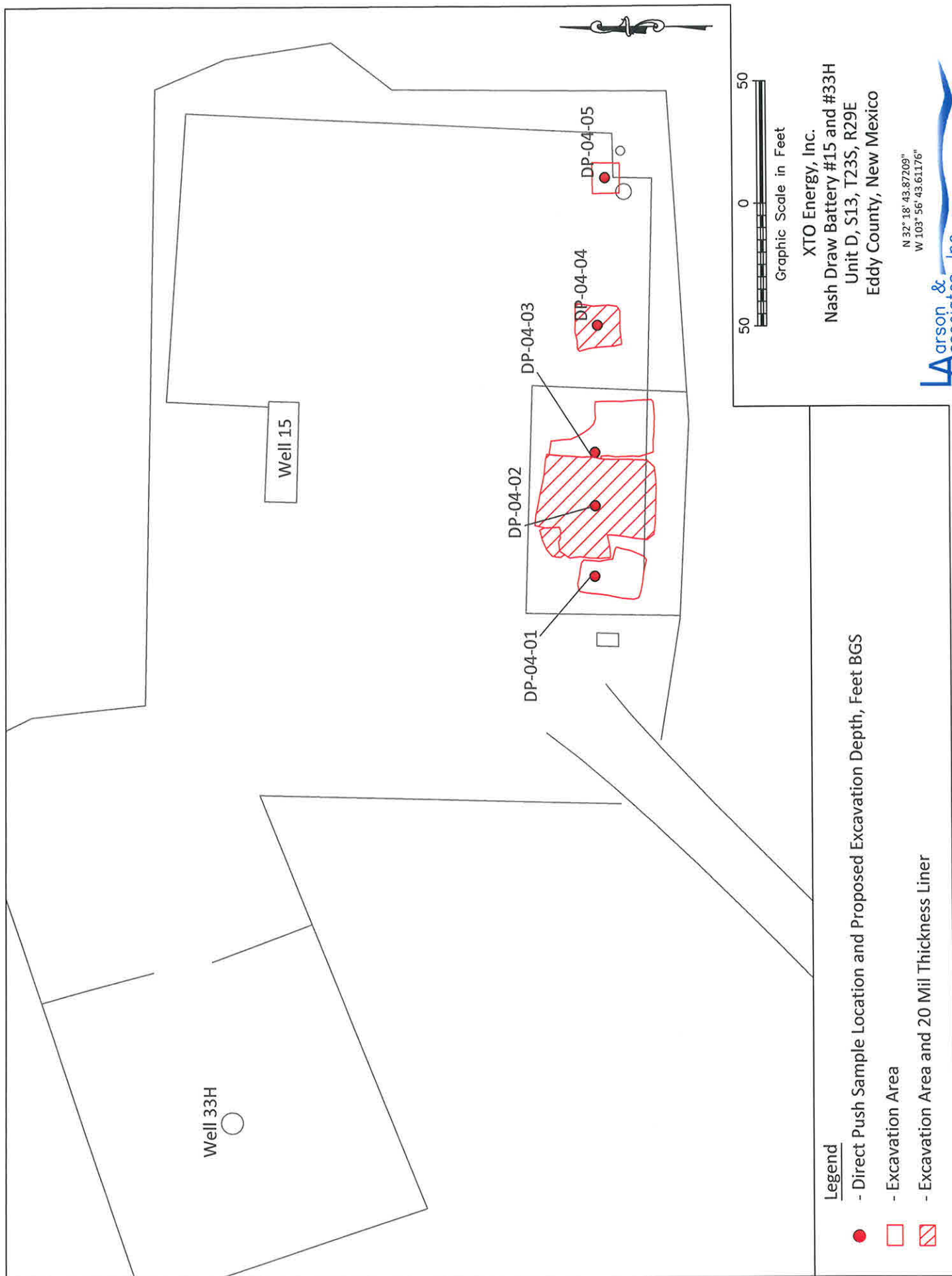
**Larson & Associates, Inc.**  
 Environmental Consultants

Figure 1 - Topographic Map





Figure 2 - Aerial Map



XTO Energy, Inc.  
 Nash Draw Battery #15 and #33H  
 Unit D, S13, T23S, R29E  
 Eddy County, New Mexico

N 32° 18' 43.87209"  
 W 103° 56' 43.61176"

**Larson & Associates, Inc.**  
 Environmental Consultants

Figure 3 - Site Map Showing Excavation and Sample Locations

## **Appendix A**

### **Remediation Plan Approval**



**From:** Patterson, Heather, EMNRD [Heather.Patterson@state.nm.us]  
**Sent:** Thursday, November 10, 2016 2:09 PM  
**To:** Mark Larson; Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; hprice@blm.gov  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** RE: 2RP-3872, Remediation Plan, Nash Draw Tank Battery #15 & #33, November 2, 2016

RE: XTO \* Nash Draw Battery #14 and #33 \* 30-015-28049 \* 2RP-3872

Mark,

Your proposed remediation for the above listed site is approved.

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.

If you have any questions or concerns, and for notification, please contact me.

Heather Patterson  
Environmental Specialist  
NMOCD District II  
Office (575)748-1283 ext.101  
Cell (575)703-0228

**From:** Mark Larson [<mailto:Mark@laenvironmental.com>]  
**Sent:** Monday, November 07, 2016 6:34 PM  
**To:** Patterson, Heather, EMNRD; Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; [hprice@blm.gov](mailto:hprice@blm.gov)  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** Re: 2RP-3872, Remediation Plan, Nash Draw Tank Battery #15 & #33, November 2, 2016

All,

Please find attached remediation plan for the Nash Draw Tank Battery #15 & #33. The plan was revised to include BTEX in excavation samples, where applicable. Remediation will commence on Tuesday, November 8, 2016, per our verbal discussion and approval yesterday. Please contact Dudley McMinn with XTO at (432) 682-8873 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](mailto:mark@laenvironmental.com)

## **Appendix B**

### **Laboratory Reports**



**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: Nash Draw 15 & 33

Project Number: 16-0108-04

Location: New Mexico

Lab Order Number: 6K17004



NELAP/TCEQ # T104704156-13-3

Report Date: 11/18/16

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-04-02-N2	6K17004-01	Soil	11/15/16 15:35	11-17-2016 08:45
DP-04-02-E2	6K17004-02	Soil	11/15/16 15:45	11-17-2016 08:45
DP-04-02-W2	6K17004-03	Soil	11/15/16 15:37	11-17-2016 08:45
DP-04-02-S2	6K17004-04	Soil	11/15/16 15:40	11-17-2016 08:45
DP-04-04-N2	6K17004-05	Soil	11/15/16 15:15	11-17-2016 08:45
DP-04-04-E2	6K17004-06	Soil	11/15/16 15:20	11-17-2016 08:45
DP-04-04-W2	6K17004-07	Soil	11/15/16 15:25	11-17-2016 08:45
DP-04-04-S2	6K17004-08	Soil	11/15/16 15:30	11-17-2016 08:45

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-02-N2**  
**6K17004-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00122	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00244	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00122	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00244	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00122	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		82.8 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		75.9 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	18.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.5	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C12-C28	ND	30.5	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C28-C35	ND	30.5	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: o-Terphenyl		114 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.5	mg/kg dry	1	[CALC]	11/17/16	11/17/16	calc	

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-02-E2**  
**6K17004-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		73.2 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		80.4 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	14.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	11/17/16	11/17/16	calc	

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.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-02-W2**  
**6K17004-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Permian Basin Environmental Lab, L.P.</b>									
<b>Organics by GC</b>									
Benzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		71.5 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		80.2 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	
<b>General Chemistry Parameters by EPA / Standard Methods</b>									
% Moisture	14.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>									
C6-C12	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: 1-Chlorooctane		93.6 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Surrogate: o-Terphenyl		95.0 %	70-130		P6K1805	11/17/16	11/17/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	{CALC}	11/17/16	11/17/16	calc	

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.

1400 Rankin HWY Midland, TX 79701 432-686-7235

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-02-S2**  
**6K17004-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		73.3 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		78.3 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	14.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C12-C28	143	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C28-C35	89.2	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: o-Terphenyl		112 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	232	29.1	mg/kg dry	1	[CALC]	11/17/16	11/18/16	calc	

Permian Basin Environmental Lab, L.P.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-04-N2**  
**6K17004-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00118	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00235	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00118	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00235	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00118	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		80.6 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		73.5 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	15.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: 1-Chlorooctane		115 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	11/17/16	11/18/16	calc	

Permian Basin Environmental Lab, L.P.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-04-E2**  
**6K17004-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00227	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		73.0 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC
Surrogate: 4-Bromofluorobenzene		75.9 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	12.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: 1-Chlorooctane		104 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/17/16	11/18/16	calc	

Permian Basin Environmental Lab, L.P.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-04-W2**  
**6K17004-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		75.3 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		75.4 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	14.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C12-C28	105	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C28-C35	46.9	29.1	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: 1-Chlorooctane		97.6 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: o-Terphenyl		96.5 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	152	29.1	mg/kg dry	1	[CALC]	11/17/16	11/18/16	calc	

Permian Basin Environmental Lab, L.P.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-04-S2**  
**6K17004-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Toluene	ND	0.00227	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		77.4 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		72.7 %	75-125		P6K1701	11/17/16	11/17/16	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	12.0	0.1	%	1	P6K1801	11/18/16	11/18/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-130		P6K1805	11/17/16	11/18/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/17/16	11/18/16	calc	

Permian Basin Environmental Lab, L.P.

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6K1701 - General Preparation (GC)**

**Blank (P6K1701-BLK1)**

Prepared & Analyzed: 11/17/16

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0619		"	0.0600		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.0636		"	0.0600		106	80-120			

**LCS (P6K1701-BS1)**

Prepared & Analyzed: 11/17/16

Benzene	0.0893	0.00100	mg/kg wet	0.100		89.3	80-120			
Toluene	0.0985	0.00100	"	0.100		98.5	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.196	0.00200	"	0.200		98.1	80-120			
Xylene (o)	0.0960	0.00100	"	0.100		96.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.0632		"	0.0600		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.0606		"	0.0600		101	80-120			

**LCS Dup (P6K1701-BSD1)**

Prepared & Analyzed: 11/17/16

Benzene	0.0853	0.00100	mg/kg wet	0.100		85.3	80-120	4.52	20	
Toluene	0.0910	0.00100	"	0.100		91.0	80-120	7.90	20	
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120	3.20	20	
Xylene (p/m)	0.189	0.00200	"	0.200		94.3	80-120	3.94	20	
Xylene (o)	0.0940	0.00100	"	0.100		94.0	80-120	2.08	20	
Surrogate: 1,4-Difluorobenzene	0.0660		"	0.0600		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.0704		"	0.0600		117	80-120			

**Matrix Spike (P6K1701-MS1)**

Source: 6K16009-01

Prepared & Analyzed: 11/17/16

Benzene	0.0661	0.00102	mg/kg dry	0.102	ND	64.7	80-120			QM-05
Toluene	0.0426	0.00204	"	0.102	ND	41.8	80-120			QM-05
Ethylbenzene	0.0284	0.00102	"	0.102	ND	27.9	80-120			QM-05
Xylene (p/m)	0.0447	0.00204	"	0.204	ND	21.9	80-120			QM-05
Xylene (o)	0.0240	0.00102	"	0.102	ND	23.5	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	0.0631		"	0.0612		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.0640		"	0.0612		104	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6K1701 - General Preparation (GC)**

Matrix Spike Dup (P6K1701-MSD1)	Source: 6K16009-01			Prepared & Analyzed: 11/17/16						
Benzene	0.0874	0.00102	mg/kg dry	0.102	ND	85.7	80-120	27.9	20	QM-05
Toluene	0.0660	0.00204	"	0.102	ND	64.7	80-120	43.0	20	QM-05
Ethylbenzene	0.0490	0.00102	"	0.102	ND	48.1	80-120	53.2	20	QM-05
Xylene (p/m)	0.0788	0.00204	"	0.204	ND	38.6	80-120	55.2	20	QM-05
Xylene (o)	0.0419	0.00102	"	0.102	ND	41.1	80-120	54.5	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.0669		"	0.0612		109	75-125			
Surrogate: 1,4-Difluorobenzene	0.0646		"	0.0612		106	75-125			

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**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
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**Batch P6K1801 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P6K1801-BLK1)**

Prepared & Analyzed: 11/18/16

% Moisture ND 0.1 %

**Duplicate (P6K1801-DUP1)**

Source: 6K17004-04

Prepared & Analyzed: 11/18/16

% Moisture 14.0 0.1 % 14.0 0.00 20

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6K1805 - TX 1005**

**Blank (P6K1805-BLK1)**

Prepared & Analyzed: 11/17/16

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	57.8		"	50.0		116	70-130			

**LCS (P6K1805-BS1)**

Prepared & Analyzed: 11/17/16

C6-C12	988	25.0	mg/kg wet	1000		98.8	75-125			
>C12-C28	974	25.0	"	1000		97.4	75-125			
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	54.0		"	50.0		108	70-130			

**LCS Dup (P6K1805-BSD1)**

Prepared & Analyzed: 11/17/16

C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	4.27	20	
>C12-C28	981	25.0	"	1000		98.1	75-125	0.744	20	
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	62.7		"	50.0		125	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

### Notes and Definitions

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

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: \_\_\_\_\_

Date: 11/18/2016

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.

OK 11/10/04

CHAIN-OF-CUSTOMER

**Arson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfield, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 11/12/16 PAGE 1 OF 1  
PO #: \_\_\_\_\_ LAB WORK ORDER #: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Nash Draw 15 & 33  
LA PROJECT #: 16-0108-04 COLLECTOR: Tamara Williams

TRRP report? ☐ Yes ☒ No  
TIME ZONE: \_\_\_\_\_  
Time zone/State: \_\_\_\_\_  
N/M

S=SOIL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

PRESERVATION  
HCl  
HNO<sub>3</sub>  
H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐  
ICE  
UNPRESERVED

ANALYSES  
BTEX ☒ MTBE ☐  
TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐  
GASOLINE MOD 8015 ☒ OK  
DIESEL - MOD 8015 ☒  
VOC 8260 ☐  
SVOC 8270 ☐ PAH 8270 ☐ HCLPAH ☐  
8081 PESTICIDES ☐ 8151 HERBICIDES ☐  
TCLP - PCBs ☐  
TCLP - METALS (RCRA) ☐ TCLP VOC ☐  
TCLP - PEST ☐ HERB ☐ Semi-VOC ☐  
TOTAL METALS (RCRA) ☐ OTHER LIST ☐  
LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐  
RO ☐ TOX ☐ FLASHPOINT ☐  
TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐  
PH ☐ HEXAVALENT CHROMIUM ☐  
EXPLOSIVES ☐ FECHLORATE ☐  
CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

HCl

HNO<sub>3</sub>

H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐

ICE

UNPRESERVED

ANALYSES

BTEX ☒ MTBE ☐

TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐

GASOLINE MOD 8015 ☒ OK

DIESEL - MOD 8015 ☒

VOC 8260 ☐

SVOC 8270 ☐ PAH 8270 ☐ HCLPAH ☐

8081 PESTICIDES ☐ 8151 HERBICIDES ☐

TCLP - PCBs ☐

TCLP - METALS (RCRA) ☐ TCLP VOC ☐

TCLP - PEST ☐ HERB ☐ Semi-VOC ☐

TOTAL METALS (RCRA) ☐ OTHER LIST ☐

LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐

RO ☐ TOX ☐ FLASHPOINT ☐

TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐

PH ☐ HEXAVALENT CHROMIUM ☐

EXPLOSIVES ☐ FECHLORATE ☐

CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

FIELD NOTES

DR-04-02-N2  
-E2  
-W2  
-S2

11/15/16  
3:35  
3:45  
3:37  
3:40

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

**PBELAB**

## Analytical Report

**Prepared for:**

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

Project: Nash Draw 15 & 33

Project Number: 16-0108-04

Location: NM

Lab Order Number: 6K22003



NELAP/TCEQ # T104704156-13-3

Report Date: 11/23/16

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-04-02-S2	6K22003-01	Soil	11/21/16 15:15	11-22-2016 09:07
DP-04-04-W2	6K22003-02	Soil	11/21/16 15:25	11-22-2016 09:07

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-02-S2**  
**6K22003-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	12.0	0.1	%	1	P6K2301	11/23/16	11/23/16	% calculation
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M
>C12-C28	ND	28.4	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M
>C28-C35	ND	28.4	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M
Surrogate: 1-Chlorooctane		74.2 %	70-130		P6K2305	11/22/16	11/23/16	TPH 8015M
Surrogate: o-Terphenyl		91.5 %	70-130		P6K2305	11/22/16	11/23/16	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	11/22/16	11/23/16	calc

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-04-04-W2**  
**6K22003-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	13.0	0.1	%	1	P6K2301	11/23/16	11/23/16	% calculation
------------	------	-----	---	---	---------	----------	----------	---------------

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.7	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P6K2305	11/22/16	11/23/16	TPH 8015M	
Surrogate: 1-Chlorooctane		68.4 %	70-130		P6K2305	11/22/16	11/23/16	TPH 8015M	S-GC
Surrogate: o-Terphenyl		83.0 %	70-130		P6K2305	11/22/16	11/23/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.7	mg/kg dry	1	[CALC]	11/22/16	11/23/16	calc	

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

**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
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**Batch P6K2301 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P6K2301-BLK1)**

Prepared & Analyzed: 11/23/16

% Moisture ND 0.1 %

**Duplicate (P6K2301-DUP1)**

Source: 6K22001-05

Prepared & Analyzed: 11/23/16

% Moisture 11.0 0.1 % 12.0 8.70 20

**Duplicate (P6K2301-DUP2)**

Source: 6K22006-23

Prepared & Analyzed: 11/23/16

% Moisture 9.0 0.1 % 10.0 10.5 20

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6K2305 - TX 1005**

**Blank (P6K2305-BLK1)**

Prepared: 11/22/16 Analyzed: 11/23/16

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	88.9		"	100		88.9	70-130			
Surrogate: o-Terphenyl	53.9		"	50.0		108	70-130			

**LCS (P6K2305-BS1)**

Prepared: 11/22/16 Analyzed: 11/23/16

C6-C12	928	25.0	mg/kg wet	1000		92.8	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	58.4		"	50.0		117	70-130			

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

Project: Nash Draw 15 & 33  
Project Number: 16-0108-04  
Project Manager: Mark Larson

Fax: (432) 687-0456

### Notes and Definitions

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

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By: \_\_\_\_\_

Date: 11/23/2016

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.

16K22003

CHAIN-OF-CUSTODY

**Larson & Associates, Inc.**  
Environmental Consultants

507 N. Marienfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

**Mark Larson**

DATE: **11-22-16**

PAGE **1** OF **1**

PO #:

LAB WORK ORDER #:

PROJECT LOCATION OR NAME: **XTO Nash Draw Battery 15 &**

LA PROJECT #: **16-0108-04**

COLLECTOR: **Travis Williams**

TRRP report  
☐ Yes ☒ No

☒ S=SOIL  
☐ W=WATER  
☐ A=AIR  
☐ P=PAINT  
☐ SL=SLUDGE  
☐ OT=OTHER

TIME ZONE:  
Time zone/State:

**MST**

Field  
Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

HCl

HNO<sub>3</sub>

H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐

ICE

UNPRESERVED

**ANALYSES**

BTEX ☐ MTBE ☐  
TPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐  
GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐  
VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐  
8081 PESTICIDES ☐ 8151 HERBICIDES ☐  
8082 PCBs ☐ TCLP - METALS (ROR) ☐ TCLP VOC ☐  
TCLP - PEST ☐ HERB ☐ Semi-VOC ☐  
TOTAL METALS (ROR) ☐ OTHER LIST ☐  
LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐  
RO ☐ TOX ☐ FLASHPOINT ☐  
TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐  
PH ☐ HEXAVALENT CHROMIUM ☐  
EXPLOSIVES ☐ PENTACHLORATE ☐  
CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

FIELD NOTES

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DP-04-02-S2  
DP-04-04-W2

11-2-16 3:15 S 1  
11-2-16 3:26 S 1

TOTAL

RELINQUISHED BY: (Signature)

**David Martinez**

DATE/TIME  
**11-22-16**

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

TURN AROUND TIME

NORMAL ☐

1 DAY ☐

2 DAY ☒

OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: **10.0**

THERM #:

CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED

CARRIER BILL #

HAND DELIVERED

PBEL



**Appendix C**  
**Photographs**



Location Sign



Location Viewing South Prior to Remediation, February 3, 2016





Location Viewing Southeast prior to Remediation, February 3, 2016



Excavation DP-04-01 Viewing South, November 16, 2016





Excavation DP-04-02 Viewing South, November 16, 2016



Excavation DP-04-02 Viewing South, November 16, 2016





Excavation DP-04-03 Viewing South, November 16, 2016



Excavation DP-04-04 Viewing South, November 16, 2016





Liner Installed in DP-04-02 (4 feet) Viewing North, November 28, 2016



Liner Installed in DP-04-04 (4 feet) Viewing North, November 28, 2016





Backfilled Excavation at DP-04-05 Viewing East, November 16, 2016



Completed Remediation Viewing East, December 15, 2016

**Appendix D**  
**Waste Manifests**



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO 116215

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

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d.

A

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

T

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

O

15. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116216

1. PAGE \_\_\_\_ OF \_\_\_\_

2. TRAILER NO. 112

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

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17.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116219

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 12

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

F

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

S

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

I

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116217**

1. PAGE    OF   

2. TRAILER NO.   

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

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O

15. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

R

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

17.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

**COPY 4**



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116220

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 13

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

N

a.

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b.

R

c.

A

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

T

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

17.

#### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

S

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO 116223

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 12

G E N E R A T O R	3. COMPANY NAME		4. ADDRESS		5. PICK-UP DATE	
	PHONE NO.		CITY	STATE	ZIP	6. TNRCC I.D. NO.
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No. Type	9. TOTAL QUANTITY
	a.					
	b.					
R E C E I V E R	c.					
	d.					
	12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE PROFILE NO.
	14. IN CASE OF EMERGENCY OR SPILL, CONTACT					
T R A N S P O R T E R S	NAME		PHONE NO.		24-HOUR EMERGENCY NO.	
	15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC					
D I S P O S I T O R	PRINTED/TYPED NAME		SIGNATURE		DATE	
	16. TRANSPORTER (1)		17. TRANSPORTER (2)			
D I S P O S I T O R	NAME:		NAME:			
	TEXAS I.D. NO.		TEXAS I.D. NO.			
	IN CASE OF EMERGENCY CONTACT:		IN CASE OF EMERGENCY CONTACT:			
	EMERGENCY PHONE:		EMERGENCY PHONE:			
D I S P O S I T O R	18. TRANSPORTER (1): Acknowledgment of receipt of material		19. TRANSPORTER (2): Acknowledgment of receipt of material			
	PRINTED/TYPED NAME		PRINTED/TYPED NAME			
D I S P O S I T O R	SIGNATURE		SIGNATURE			
	DATE		DATE			
D I S P O S I T O R	Lea Land, LLC		ADDRESS:		PHONE:	
			Mile Marker 64, U.S. Hwy 62/180,		575-887-4048	
			30 Miles East of Carlsbad, NM			
	PERMIT NO.		20. COMMENTS			
D I S P O S I T O R	WM-01-035 - New Mexico					
	21. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
D I S P O S I T O R	AUTHORIZED SIGNATURE		CELL NO.		DATE	TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116224

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

E

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

N

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

E

a.

b.

c.

R

d. 41100 44,780 44,780

A

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

T

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16. TRANSPORTER (1)

17. TRANSPORTER (2)

NAME:

NAME:

TEXAS I.D. NO.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

D

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

F

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

S

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

I

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

L

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 116225

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

E

b.

R

c.

A

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

T

14. NAME

IN CASE OF EMERGENCY OR SPILL, CONTACT

PHONE NO.

24-HOUR EMERGENCY NO.

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16. TRANSPORTER (1)

17. TRANSPORTER (2)

NAME:

NAME:

TEXAS I.D. NO.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

EMERGENCY PHONE:

S

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116248

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 172

G E N E R A T O R	3. COMPANY NAME LEA LAND, LLC		4. ADDRESS 1300 WEST MAIN STREET OKLAHOMA CITY, OK 73106		5. PICK-UP DATE 11/15/01	
	PHONE NO. 405-236-4257		CITY OKLAHOMA CITY		STATE OK	
			ZIP 73106		6. TNRC I.D. NO.	
	7. NAME OR DESCRIPTION OF WASTE SHIPPED: a. 46/40				8. CONTAINERS No. Type	9. TOTAL QUANTITY
					10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
A U T H O R I Z E D	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE PROFILE NO.	
	14. IN CASE OF EMERGENCY OR SPILL, CONTACT NAME PHONE NO. 24-HOUR EMERGENCY NO.					
O F F I C E	15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC					
	PRINTED/TYPED NAME			SIGNATURE DATE		
T R A N S P O R T E R S	16. TRANSPORTER (1) NAME: TEXAS I.D. NO. IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:			17. TRANSPORTER (2) NAME: TEXAS I.D. NO. IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:		
	18. TRANSPORTER (1): Acknowledgment of receipt of material PRINTED/TYPED NAME SIGNATURE DATE			19. TRANSPORTER (2): Acknowledgment of receipt of material PRINTED/TYPED NAME SIGNATURE DATE		
	Lea Land, LLC			ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		
	PHONE: 575-887-4048					
D I S P O S I T O R Y	PERMIT NO. WM-01-035 - New Mexico			20. COMMENTS		
	21. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
	AUTHORIZED SIGNATURE		CELL NO.	DATE	TIME	

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NO 116250

1. PAGE OF

2. TRAILER NO.

DISCIPLINARITY



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116251

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

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E

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R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

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O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

F

PERMIT NO.

WM-01-035 - New Mexico

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

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21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116257**

1. PAGE    OF   

2. TRAILER NO.   

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16. **TRANSPORTER (1)**

17. **TRANSPORTER (2)**

NAME:

NAME:

TEXAS I.D. NO.

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

PRINTED/TYPED NAME

SIGNATURE

DATE

SIGNATURE

DATE

D

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

F

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

S

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

A

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

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# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116258

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 19

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

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R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116309**

1. PAGE    OF   

2. TRAILER NO. **112**

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

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b.

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c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

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14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

T

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15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME Isadora Garcia

SIGNATURE Isadora Garcia DATE           

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

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AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116310

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. \_\_\_\_\_

G E N E R A T O R	3. COMPANY NAME		4. ADDRESS		5. PICK-UP DATE	
	PHONE NO.		CITY STATE ZIP		6. TNRCC I.D. NO.	
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:				8. CONTAINERS No.   Type	9. TOTAL QUANTITY
	a.				10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
	b.					
T R A N S P O R T E R S	c.					
	d.					
	12. COMMENTS OR SPECIAL INSTRUCTIONS:				13. WASTE PROFILE NO.	
	14. <b>IN CASE OF EMERGENCY OR SPILL, CONTACT</b>					
	NAME		PHONE NO		24-HOUR EMERGENCY NO.	
D I S P O S I T O R	15. <b>GENERATOR'S CERTIFICATION:</b> I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC					
	PRINTED/TYPED NAME			SIGNATURE		DATE
	16. <b>TRANSPORTER (1)</b>			17. <b>TRANSPORTER (2)</b>		
	NAME:			NAME:		
	TEXAS I.D. NO.			TEXAS I.D. NO.		
IN CASE OF EMERGENCY CONTACT:			IN CASE OF EMERGENCY CONTACT:			
EMERGENCY PHONE:			EMERGENCY PHONE:			
18. <b>TRANSPORTER (1):</b> Acknowledgment of receipt of material			19. <b>TRANSPORTER (2):</b> Acknowledgment of receipt of material			
PRINTED/TYPED NAME			PRINTED/TYPED NAME			
SIGNATURE			SIGNATURE			
DATE			DATE			
D I S P O S I T O R	Lea Land, LLC		ADDRESS:		PHONE:	
			Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM		575-887-4048	
	PERMIT NO.		20. COMMENTS			
	WM-01-035 - New Mexico					
	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
AUTHORIZED SIGNATURE			CELL NO.	DATE	TIME	

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

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1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

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12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

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R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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F

PERMIT NO.

WM-01-035 - New Mexico

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

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AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



## **Appendix E**

### **Initial and Final C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

SEP 07 2016

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

RECEIVED

**Release Notification and Corrective Action**

**NAB 1625 327814** **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: XTO Energy, Inc. <b>5380</b>	Contact: Dudley McMinn	
Address: 500 W. Illinois Ave., Suite 100, Midland, TX 70701	Telephone No.: (432) 682-8873	
Facility Name: Nash Draw Unit Battery #15 & #33	Facility Type: Tank Battery (Equipment Removed)	
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-28049

**LOCATION OF RELEASE**

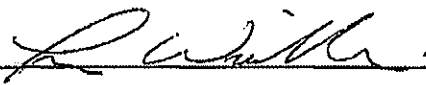

Unit Letter D	Section 13	Township 23S	Range 29E	Feet from the 10	North/South Line North	Feet from the 475	East/West Line West	County: Eddy
------------------	---------------	-----------------	--------------	---------------------	---------------------------	----------------------	------------------------	--------------

Latitude 32.312222 Longitude -103.945556

**NATURE OF RELEASE**

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Spills	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 07-20-2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Hydrocarbons in soil due to historic use of tank battery reported in soil samples by laboratory following removal of tanks and equipment. Will remediate to OCD and BLM requirements.		
Describe Area Affected and Cleanup Action Taken.* Affected soil to be excavated, treated onsite treatment or disposed offsite at OCD approved facility. Refer to attached analytical data summary.		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Luke Williams	Approved by Environmental Specialist: 	
Title: EH&S Coordinator	Approval Date: <u>9/8/16</u>	Expiration Date: <u>NA</u>
E-mail Address: Luke.Williams@xtoenergy.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines <input type="checkbox"/> Attached <input type="checkbox"/>	
Date: 09-07-2016 Phone: (432) 683-8873	SUBMIT REMEDIATION PROPOSAL NO <u>1019116</u>	

\* Attach Additional Sheets If Necessary

LATER THAN: 10/19/16

2RP-3872

**Patterson, Heather, EMNRD**

---

**From:** Mark Larson <Mark@laenvironmental.com>  
**Sent:** Wednesday, September 07, 2016 4:54 PM  
**To:** Patterson, Heather, EMNRD  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** Re: Initial C-141s for XTO Energy, Inc., Nash Draw Unit Tank Batteries (8), Eddy County, New Mexico  
**Attachments:** Initial C-141, XTO Energy, Inc., Nash Draw unit Battery 1 & 6, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 10, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 9, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 15 & 33, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 24, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 36, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 19 & 34, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 38, September 7, 2016.pdf

Dear Heather,

The attached C-141s and supporting documentation are submitted on behalf of XTO Energy, Inc., for eight (8) tank batteries located in the Nash Draw Unit, Eddy County, New Mexico. Please contact Dudley McMinn with XTO Energy, Inc. at (432) 682-8873 or me if you have questions.

Respectfully,

Mark J. Larson

---

**From:** Mark Larson  
**Sent:** Wednesday, September 07, 2016 10:59 AM  
**To:** 'heather.patterson@state.nm.us'  
**Cc:** 'McMinn, Dudley'; 'Luke\_Williams@xtoenergy.com'  
**Subject:** Re: Meeting Confirmation

Dear Heather,

This message is to confirm our meeting at your office on September 15, 2016 at 10:00 AM (Mountain Time). Please contact me if you have questions. See you then!

Respectfully,

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 )



[www.LAEnvironmental.com](http://www.LAEnvironmental.com)

"Serving the Permian Basin Since 2000"

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

#### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Dudley McMinn	
Address: 500 W. Illinois Ave., Suite 100, Midland, TX 70701	Telephone No.: (432) 682-8873	
Facility Name: Nash Draw Unit Battery #15 & #33	Facility Type: Tank Battery (Equipment Removed)	
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-28049

#### LOCATION OF RELEASE

Unit Letter D	Section 13	Township 23S	Range 29E	Feet from the 10	North/South Line North	Feet from the 475	East/West Line West	County: Eddy
------------------	---------------	-----------------	--------------	---------------------	---------------------------	----------------------	------------------------	--------------

Latitude 32.312222 Longitude -103.945556

#### NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Spills	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 07-20-2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Hydrocarbons in soil due to historic use of tank battery reported in soil samples by laboratory following removal of tanks and equipment. Will remediate to OCD and BLM requirements.

Describe Area Affected and Cleanup Action Taken.\* Soil was excavated to 2 feet bgs DP-04-01 and DP-04-03 over areas measuring approximately 20 x 25 feet and 20 x 40 feet, respectively. Locations DP-04-02 and DP-04-04 were excavated to maximum depths of 4 feet over areas measuring about 40 x 45 feet and 15 x 20 feet, respectively. Laboratory results of confirmation soil samples from the excavation sidewalls confirmed BTEX and TPH below the RRALs. A 20-mil thickness liner was placed in the bottom of the excavations at DP-04-02 and DP-04-04 at 4 feet bgs. Location DP-04-05 was excavated to approximately 1 foot bgs over an area measuring approximately 10 x 10 feet. The excavations were backfilled with caliche. Approximately 613 cubic yards of contaminated soil was disposed at Lea Land Landfill, LLC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Luke Williams		Approved by Environmental Specialist: <i>Bradford Billings</i>	
Title: EH&S Coordinator		Approval Date: 11/19/2019	Expiration Date:
E-mail Address: Luke.Williams@xtoenergy.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 03-23-2017		Phone: (432) 683-8873	