

October 5, 2006

Mr. Larry Johnson  
Environmental Engineer  
New Mexico Oil Conservation Division – District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

Re: **RP1-1043 Investigation Report, XTO Energy, Inc., Eunice Monument South Unit Well #187, Unit Letter D (NW/4. NW/4), Section 5, Township 21 South, Range 36 East, Lea County, New Mexico**

Dear Mr. Johnson:

Please find enclosed the above-referenced report, which is submitted to the State of New Mexico Oil Conservation Division (“OCD”) on behalf of XTO Energy, Inc (“XTO”) by Larson and Associates, Inc. (“LA”), its consultant, for a produced water spill that occurred at the Eunice Monument South Unit Well #187. Please contact Mr. Dudley McMinn with XTO at (432) 682-8873 or email [Dudley\\_Mcminn@xtoenergy.com](mailto:Dudley_Mcminn@xtoenergy.com) if you have questions. I may be reached with questions at (432) 687-0901 or email [mark@laenvironmental.com](mailto:mark@laenvironmental.com).

Sincerely,

*Larson and Associates, Inc.*



Mark J. Larson, P.G., C.P.G., C. G. W. P.  
Sr. Project Manager/President

Encl.

cc: Dudley McMinn

October 4, 2006

**VIA CERTIFIED MAIL**

Mr. Larry Johnson  
Environmental Engineer  
State of New Mexico  
Oil Conservation Division  
1625 North French Drive  
Hobbs, New Mexico 88240

**Re: 1RP-1043, XTO Energy, Inc., EMSU Well #187 Produced Water Spill Investigation Report, Unit Letter D (NW/4, NW/4), Section 5, Township 21 South, Range 36 East, Lea County, New Mexico**

Dear Mr. Johnson:

This letter is submitted to the State of New Mexico Oil Conservation Division ("OCD") on behalf of XTO Energy, Inc. ("XTO") by Larson and Associates, Inc. ("LA"), its agent, to present the results of an investigation of a produced water spill at the Eunice Monument South Unit ("EMSU") injection well #187 ("Site"). The latitude and longitude for the Site is North 32° 31' 14.1" and West 103° 17' 37.8", respectively. Figure 1 presents a topographic and depth-to-groundwater map. Contact information for XTO is as follows:

Mr. Dudley M<sup>c</sup>Minn  
Environmental, Health & Safety Representative  
XTO Energy, Inc.  
200 North Loraine Street, Suite 800  
Midland, Texas 79701  
Office: (432) 682-8873  
Fax: (432) 687-0862  
Cell: (432) 557-7976  
Email: [Dudley\\_McMinn@xtoenergy.com](mailto:Dudley_McMinn@xtoenergy.com)

**Chronology**

The spill occurred on August 2, 2004, while ChevronTexaco North America Exploration and Production Company ("ChevronTexaco") operated the property. ChevronTexaco reported the spill to the OCD on August 3, 2004, and submitted form C-141. Form C-141 reported the release involved approximately 180 barrels ("bbl") of produced water and 160 bbl was recovered. ChevronTexaco personnel scrapped an unknown volume of soil from the spill, which was disposed at Sundance, Inc., located east of Eunice, New Mexico. XTO assumed operations of the Site on August 16, 2004.

On November 9, 2004, December 22, 2004, April 3, 2006 and July 6, 2006, LA personnel collected soil samples from borings and notification was provided to the OCD prior to each event. The samples were collected using hand auger, direct push and air rotary methods, placed in 4-ounce glass jars, labeled, chilled in an ice chest and delivered to Environmental Lab of Texas, Inc., located in Odessa, Texas. Duplicate sample were collected for headspace analysis and recorded on boring logs. All headspace readings were below 100 parts per million ("ppm"), therefore, the laboratory analyzed select samples for total petroleum hydrocarbons ("TPH") and all samples were analyzed for chloride using methods SW-846-8015 and 300, respectively. Figure 2 presents the boring locations. Table 1 presents a summary of the laboratory analysis. Appendix A presents the boring logs. Appendix B presents the laboratory reports. Appendix C presents photographs.

### Conclusions

Ground water occurs at approximately 105 feet below ground surface ("bgs") and no wells or surface water is present within 1,000 horizontal feet of the Site. Figure 1 presents contours for depth-to-groundwater. Recommended remediation action levels ("RRAL") were calculated for the Site using the following OCD criteria:

<b>Ranking Criteria</b>	<b>Result</b>	<b>Ranking Score</b>
Depth-to-Groundwater	>100 feet	0
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
<b>Total Score:</b>		<b>0</b>

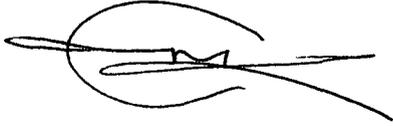
The following RRAL are assigned to the leak based on the total ranking score (0):

- **Benzene**      **10 mg/kg**
- **BTEX**        **50 mg/kg**
- **TPH**         **5,000 mg/kg**

TPH was below 5,000 mg/Kg in all samples. The maximum vertical concentration of chloride decreased below 1000 milligrams per kilogram ("mg/Kg") at all locations, except from location HB-12. The deepest sample from boring HB-12 (40 to 41 feet), reported chloride at 1,110 mg/Kg. The highest chloride was reported in sample HB-12, 20 to 22 feet bgs (3,110 mg/Kg). This sample was analyzed using the synthetic precipitation leaching procedure ("SPLP") by EPA method SW-846-1312 to determine if the chloride would leach above the New Mexico Water Quality Control Commission ("WQCC") domestic water quality threshold of 250 milligrams per liter ("mg/L"). The chloride concentration from the SPLP method was 177 mg/L. XTO respectfully requests a closure letter from the OCD for this spill. Please contact Mr. Dudley McMinn with XTO at (432) 682-8873 or email [Dudley\\_McMinn@xtoenergy.com](mailto:Dudley_McMinn@xtoenergy.com) if you have questions. I may be reached with questions at (432) 687-0901 or email [mark@laenvironmental.com](mailto:mark@laenvironmental.com).

Mr. Larry Johnson  
October 4, 2006  
Page 3

Sincerely,  
***Larson and Associates, Inc.***

A handwritten signature in black ink, appearing to read 'M. Larson', enclosed within a large, loopy oval shape.

Mark J. Larson, P.G., C.P.G., C.G.W.P.  
Senior Project Manager/President

Encl

cc: Dudley McMinn/XTO

**Tables**

Table 1  
 Summary of Laboratory Analyses of Soil Samples  
 XTO Energy, Inc., Eunice Monument South Uunit (EMSU) Well #187  
 Unit Letter D (NW/4, NW/4), Section 5, Township 21 South, Range 36 East  
 Lea County, New Mexico

Sample Location	Sample Date	Sample Depth (BGS)	GRO C6 - C12 (mg/Kg)	DRO C12 - C35 (mg/Kg)	DRO C12 - C28 (mg/Kg)	DRO C28 - C35 (mg/Kg)	TPH C6 - C35 (mg/Kg)	Chloride (mg/Kg)	SPLP Chloride (mg/L)
HB-1	11/09/2004	0 - 1	9.7	66	--	--	75.7	638	--
BBH-1	11/09/2004	1 - 2	<10	<10	--	--	<20	808	--
HB-1A	11/09/2004	2 - 3	<10	<10	--	--	<20	399	--
	12/22/2004	4 - 6	---	---	---	---	---	968	--
	12/22/2004	6 - 8	---	---	---	---	---	1320	--
	04/03/2006	10 - 12	---	---	---	---	---	936	--
	04/03/2006	15 - 17	---	---	---	---	---	1400	--
	04/03/2006	20 - 22	---	---	---	---	---	441	--
HB-2	11/09/2004	0 - 1	<10	107	--	--	107	2800	--
HB-2A	11/09/2004	1 - 2	<10	68	--	--	68	1300	--
	11/09/2004	2 - 3	<10	<10	--	--	<20	1130	--
	04/04/2006	5 - 7	---	---	---	---	---	3470	--
	04/04/2006	10 - 12	---	---	---	---	---	2360	--
	04/04/2006	15 - 17	---	---	---	---	---	681	--
HB-3	11/09/2004	0 - 1	<10	<10	--	--	<20	<20	--
	11/09/2004	1 - 2	<10	<10	--	--	<20	<20	--
	11/09/2004	2 - 3	<10	<10	--	--	<20	<20	--
HB-4	11/09/2004	0 - 1	<10	<10	--	--	<20	97.7	--
BBH-4	11/09/2004	1 - 2	<10	<10	--	--	<20	638	--
HB-4A	11/09/2004	2 - 3	<10	<10	--	--	<20	915	--
	12/22/2004	4 - 6	---	--	---	---	---	1280	--
	04/03/2006	10 - 12	---	--	---	---	---	553	--
HB-5	11/09/2004	0 - 1	<10	<10	--	--	<20	<20	--
	11/09/2004	1 - 2	<10	<10	--	--	<20	31.9	--
	11/09/2004	2 - 3	<10	<10	--	--	<20	<20	--
HB-6	11/09/2004	0 - 1	<10	286	--	--	286	362	--
BBH-6	11/09/2004	1 - 2	<10	191	--	--	191	319	--
HB-6A	11/09/2004	2 - 3	<10	<10	--	--	<20	585	--
	12/22/2004	4 - 6	---	--	---	---	---	1420	--
	12/22/2004	6 - 8	---	--	---	---	---	893	--
	04/03/2006	10 - 12	---	--	---	---	---	223	--
HB-7	11/09/2004	0-1	<10	<10	--	--	<20	<20	--
	11/09/2004	1-2	<10	142	--	--	142	<20	--
	11/09/2004	2-3	<10	<10	--	--	<20	<20	--
HB-8	11/09/2004	0 - 1	<10	<10	--	--	<20	<20	--
HB-8A	11/09/2004	1 - 2	<10	<10	--	--	<20	42.5	--
	11/09/2004	2 - 3	<10	<10	--	--	<20	63.8	--
	04/03/2006	5 - 7	---	--	---	---	---	489	--
	07/06/2006	10 - 11	---	--	---	---	---	31.9	--
	07/06/2006	15 - 16	---	--	---	---	---	21.3	--
	07/06/2006	20 - 21	---	--	---	---	---	<20	--
	07/06/2006	25 - 26	---	--	---	---	---	---	--
BBH-9	12/22/2004	0 - 2	---	--	---	---	63.8	--	
HB-9A	12/22/2004	2 - 4	---	---	---	---	---	<20	--
	12/22/2004	4 - 6	---	---	---	---	---	21.3	--
	12/22/2004	6 - 8	---	---	---	---	---	170	--
	04/03/2006	10 - 12	---	--	---	---	---	872	--

Table 1  
 Summary of Laboratory Analyses of Soil Samples  
 XTO Energy, Inc., Eunice Monument South Uunit (EMSU) Well #187  
 Unit Letter D (NW/4, NW/4), Section 5, Township 21 South, Range 36 East  
 Lea County, New Mexico

Sample Location	Sample Date	Sample Depth (BGS)	GRO C6 - C12 (mg/Kg)	DRO C12 - C35 (mg/Kg)	DRO C12 - C28 (mg/Kg)	DRO C28 - C35 (mg/Kg)	TPH C6 - C35 (mg/Kg)	Chloride (mg/Kg)	SPLP Chloride (mg/L)
	04/03/2006	15 - 16	---	--	---	---	---	766	--
	07/06/2006	20 - 21	---	--	---	---	---	1,470	--
	07/06/2006	25 - 26	---	--	---	---	---	319	--
	07/06/2006	30 - 31	---	--	---	---	---	340	--
<b>BH-10</b>	12/22/2004	0 - 2	---	--	---	---	---	<20	--
<b>HB-10A</b>	12/22/2004	2 - 4	---	--	---	---	---	<20	--
	12/22/2004	4 - 6	---	--	---	---	---	<20	--
	12/22/2004	6 - 8	---	--	---	---	---	31.9	--
	04/03/2006	10 - 12	---	--	---	---	---	1070	--
	04/03/2006	15 - 17	---	--	---	---	---	1740	--
	04/03/2006	20 - 22	---	--	---	---	---	959	--
<b>BH-11</b>	12/22/2004	0 - 2	---	--	---	---	---	<20	--
<b>HB-11A</b>	12/22/2004	2 - 4	---	--	---	---	---	<20	--
	12/22/2004	4 - 6	---	--	---	---	---	<20	--
	12/22/2004	6 - 8	---	--	---	---	---	<20	--
	04/03/2006	10 - 12	---	--	---	---	---	117	--
<b>HB-12</b>	04/04/2006	0 - 2	<10	--	<10	<10	<30	<20	--
	04/04/2006	5 - 7	---	--	---	---	---	510	--
	04/04/2006	10 - 12	---	--	---	---	---	2000	--
	04/04/2006	20 - 22	---	--	---	---	---	3110	177
	07/06/2006	25 - 26	<10	--	<10	<10	<30	2,340	--
	07/06/2006	30 - 31	---	--	---	---	---	510	--
	07/06/2006	35 - 36	---	--	---	---	---	1,020	--
	07/06/2006	40 - 41	---	--	---	---	---	1,110	--
<b>HB-13</b>	04/03/2006	0 - 2	---	--	---	---	---	<20	--
	04/03/2006	5 - 7	---	--	---	---	---	404	--
	04/03/2006	10 - 12	---	--	---	---	---	170	--
<b>HB-14</b>	07/06/2006	0 - 2	---	--	---	---	---	<20	--
	07/06/2006	5 - 6	---	--	---	---	---	978	--
	07/06/2006	10 - 11	---	--	---	---	---	681	--
	07/06/2006	15 - 16	<10	--	<10	<10	<30	893	--
	07/06/2006	20 - 22	---	--	---	---	---	1,700	--
	07/06/2006	25 - 26	---	--	---	---	---	638	--
	07/06/2006	30 - 31	---	--	---	---	---	553	--
<b>BH-14</b>	07/06/2006	35 - 36	---	--	---	---	---	298	--
	07/06/2006	40 - 41	---	--	---	---	---	--	--
<b>HB-15</b>	07/06/2006	0 - 2	---	--	---	---	---	31.9	--
	07/06/2006	5 - 6	<10	--	<10	<10	<30	74.4	--
	07/06/2006	10 - 11	---	--	---	---	---	<20	--
	07/06/2006	15 - 16	---	--	---	---	---	<20	--
	07/06/2006	20 - 21	---	--	---	---	---	<20	--
	07/06/2006	25 - 26	---	--	---	---	---	---	--
<b>Background</b>	11/09/2004	0 - 1	<10.0	--	---	<10.0	<20.0	<20	--
	07/06/2006	0 - 2	---	--	---	---	---	<20	--
	11/09/2004	1 - 2	<10.0	--	---	<10.0	<20.0	<20	--
	11/09/2004	2 - 3	<10.0	--	---	<10.0	<20.0	<20	--
	07/06/2006	5 - 6	---	--	---	---	---	31.9	--

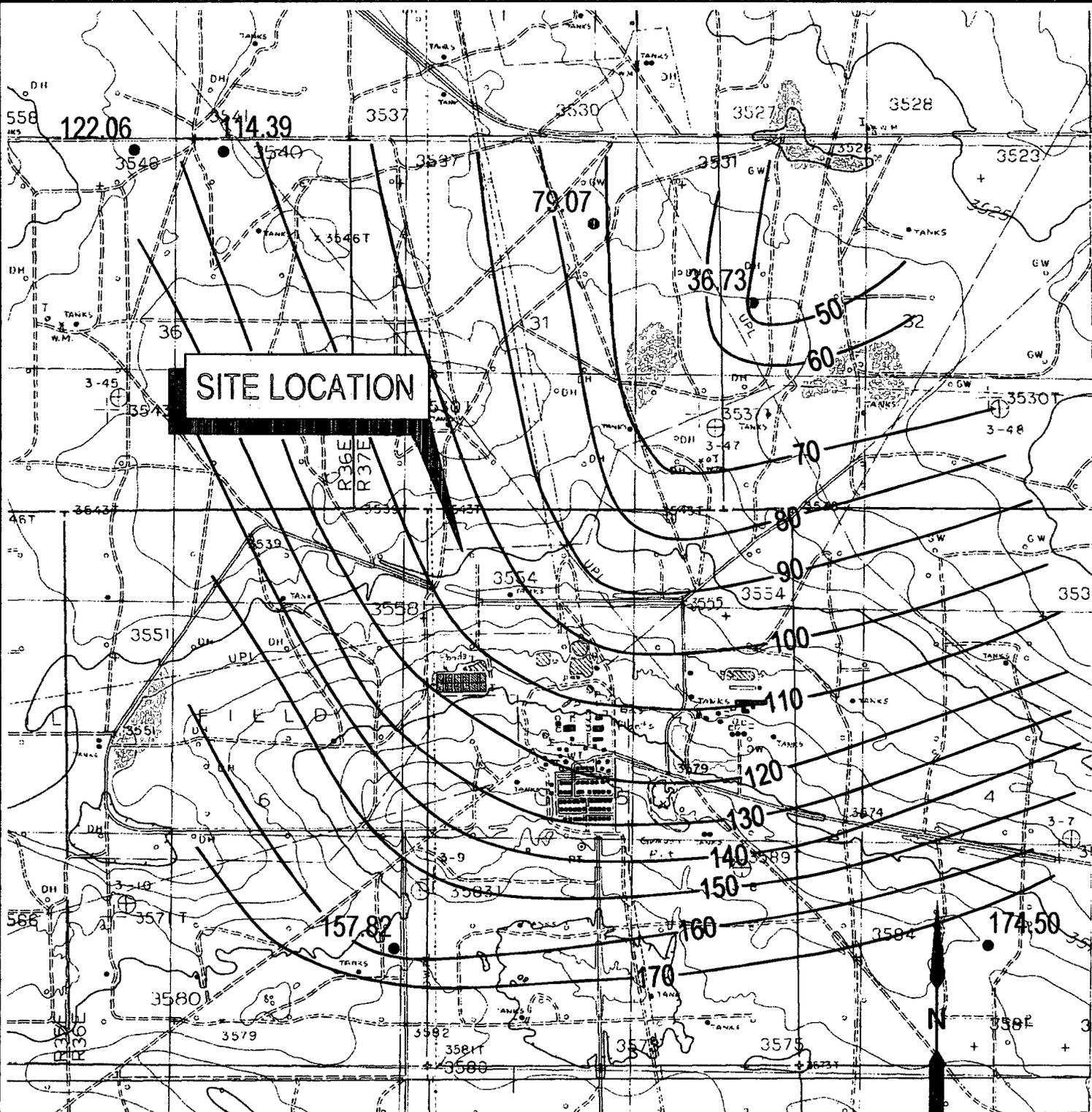
**Table 1**  
**Summary of Laboratory Analyses of Soil Samples**  
**XTO Energy, Inc., Eunice Monument South Uunit (EMSU) Well #187**  
**Unit Letter D (NW/4, NW/4), Section 5, Township 21 South, Range 36 East**  
**Lea County, New Mexico**

Sample Location	Sample Date	Sample Depth (BGS)	GRO C6 - C12 (mg/Kg)	DRO C12 - C35 (mg/Kg)	DRO C12 - C28 (mg/Kg)	DRO C28 - C35 (mg/Kg)	TPH C6 - C35 (mg/Kg)	Chloride (mg/Kg)	SPLP Chloride (mg/L)
Background	07/06/2006	10 - 11	---	--	---	---	---	<20	--
	07/06/2006	15 - 16	---	--	---	---	---	85.1	--
	07/06/2006	20 - 21	---	--	---	---	---	42.5	--
	07/06/2006	25 - 26	---	--	---	---	---	21.3	--
	07/06/2006	30 - 31	---	--	---	---	---	<20	--
	07/06/2006	35 - 36	---	--	---	---	---	<20	--
	07/06/2006	40 - 41	---	--	---	---	---	---	--

Notes: Analysis performed by Environmental Lab of Texas I, Ltd., Odessa, Texas

1. BGS: Depth in feet below ground surface
2. TPH: Total petroleum hydrocarbons (Sum of C6 to C35)
3. mg/Kg: Milligrams per kilogram
4. mg/L: Milligrams per liter
5. <: Below method detection limit
6. --: No data available

**Figures**



**SITE LOCATION**

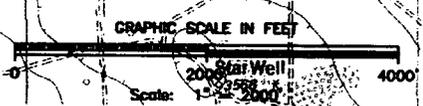
**LEGEND**

● - WATER WELL LOCATION (APPROXIMATE) AND DEPTH TO GROUNDWATER, FEET BGS

157.82

-150- CONTOUR OF DEPTH TO GROUNDWATER, FEET, BGS

WQCC STANDARD = 1,000 MG/L



**FIGURE # 1**

LEA COUNTY, NEW MEXICO

**XTO ENERGY, INC.**

NW/4, NW/4, SECTION 5, T-21-S, R-36-E  
 EMSU # 187  
 N 32° 31' 23", W 103° 17' 63"

DATE: 08-24-06

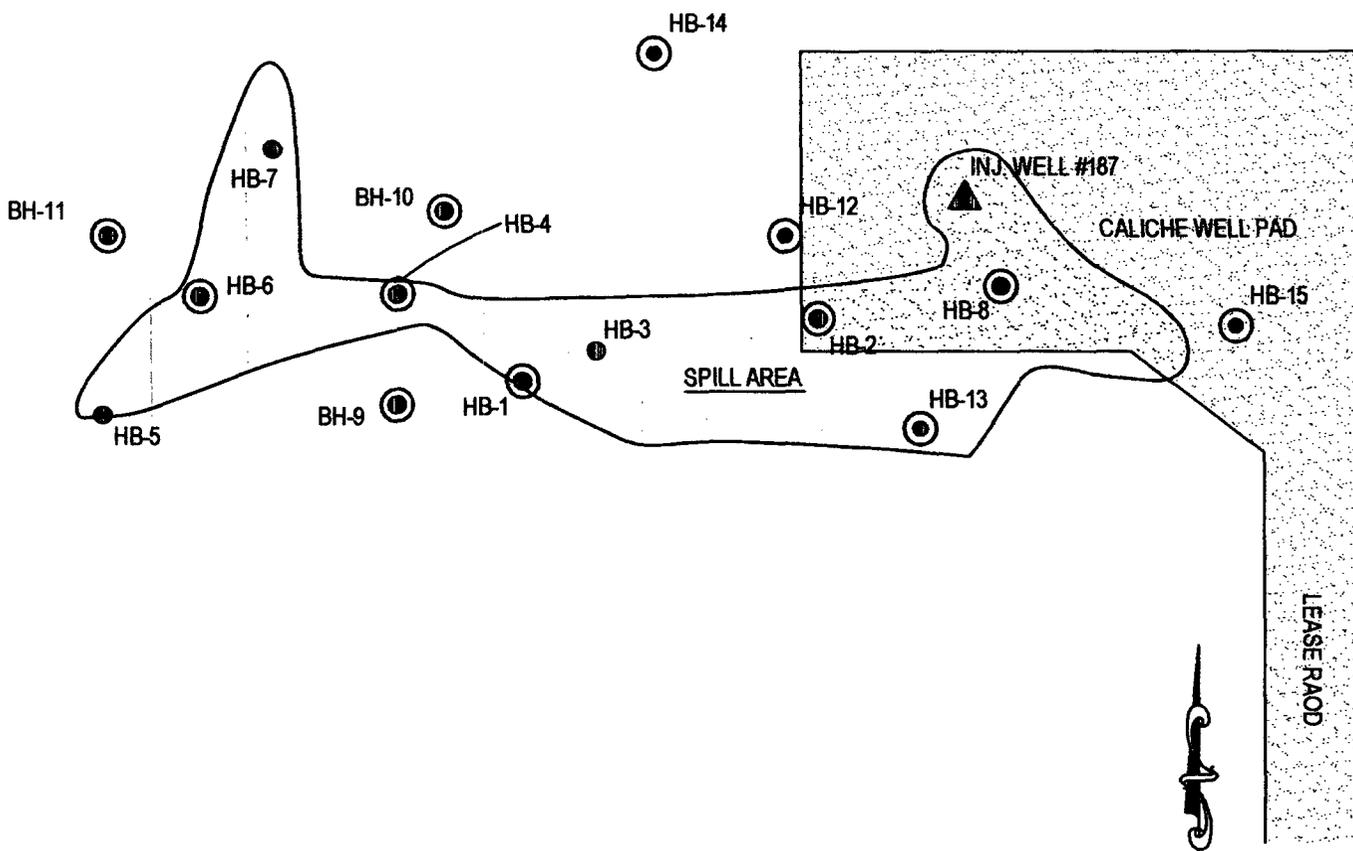
NAME: SJA

FILE: 4-0119

TOPOGRAPHIC AND DEPTH TO GROUND WATER MAP

**L**arson & associates, inc.  
 Environmental Consultants

TAKEN FROM: USGS MONUMENT SOUTH AND OIL CENTER QUAD



LEGEND

- INJ. WELL #187  - INJECTION WELL
- HB-3  - HAND AUGER BORING LOCATION (11/09/04)
- BH-9  - MACHINE-DRILLED BORING LOCATION (12/22/04, 4/3-6/06 AND 7/6/06)
- - SPILL BOUNDARY

GRAPHIC SCALE IN FEET



Scale: 1" = 40'

FIGURE #2

LEA COUNTY, NEW MEXICO

**XTO ENERGY, INC.**  
 NW/4, NW/4, SECTION 5, T-21-S, R-36-E  
 EMSU # 187  
 N 32° 31.233', W 103° 17.633'

DATE  
08-23-06

NAME: SJA

FILE: 4-0119

SITE DRAWING

**L**arson & Associates, inc.  
 Environmental Consultants

**Appendix A**

**Boring Logs**

Client: XTO

Project: EMSU # 187

Project No: 4-0119

Location: Lea County, New Mexico

# Log: Background

Page: 1 of 1

Geologist: C. Crain/M. Larson

SUBSURFACE PROFILE			SAMPLE			PID ppm 1 3 5 7 9	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Silty Sand</b> 5 YR 4/6, Yellowish red, very fine grained quartz sand, very poorly sorted, dry	1	█	█	0.2	Depth: 0.0' - 2.00' BGS (11/9/04) Chloride: <20 mg/kg
5 - 18		<b>Caliche</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, sandy to indurated, very fine grained quartz sand, hard	2	█	█	0.6	Depth: 5.00' - 6.00' BGS (7/6/06) Chloride: 31.9 mg/kg
10 - 15		<b>Silty Sand- Sandstone</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, very fine grained quartz sand, friable to loose, dry	3	█	█	0.4	Depth: 10.00' - 11.00' BGS (7/6/06) Chloride: <20 mg/kg
15 - 20			4	█	█	3.9	Depth: 15.00' - 16.00' BGS (7/6/06) Chloride: 85.1 mg/kg
20 - 25		<b>Silty Sand- Sandstone</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, very fine grained quartz sand, friable to loose, dry	5	█	█	0.6	Depth: 20.00' - 21.00' BGS (7/6/06) Chloride: 42.5 mg/kg
25 - 30			6	█	█	0.3	Depth: 25.00' - 26.00' BGS (7/6/06) Chloride: 21.3 mg/kg
30 - 35		<b>Silty Sand- Sandstone</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, very fine grained quartz sand, friable to loose, dry	7	█	█	0.4	Depth: 30.00' - 31.00' BGS (7/6/06) Chloride: <20 mg/kg
35 - 40			8	█	█	0.4	Depth: 35.00' - 36.00' BGS (7/6/06) Chloride: <20 mg/kg
40 - 45		TD: 40.00'	9	█	█	0.4	

Drill Method: Air Rotary

Drill Date: 7/6/06

Hole Size: 2"

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Checked by: MJL

Drilled by: Scarborough

Client: XTO

Log: HB-1A

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					Depth: 0.0' - 1.00' BGS (11/9/04) TPH: 75.7 mg/kg Chloride: 638 mg/kg
5 - 10		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					Depth: 1.00' - 2.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 808 mg/kg
10 - 15		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	1			0.8	Depth: 2.00' - 3.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 399 mg/kg
15 - 20			2			0.0	Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: 968 mg/kg
20 - 22			3			0.5	Depth: 6.00' - 8.00' BGS (12/22/04) Chloride: 1320 mg/kg
22 - 25		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp  <i>TD: 22.00'</i>					Depth: 10.00' - 12.00' BGS (12/22/04) Chloride: 936 mg/kg

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/3/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Project: EMSU # 187

Project No: 4-0119

Location: Lea County, New Mexico

Log: HB-2A

Page: 1 of 1

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					Depth: 0.0' - 1.00' BGS (11/9/04) TPH: 107 mg/kg Chloride: 2600 mg/kg  Depth: 1.00' - 2.00' BGS (11/9/04) TPH: 68 mg/kg Chloride: 1300 mg/kg  Depth: 2.00' - 3.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 1130 mg/kg  Depth: 5.00' - 7.00' BGS (4/4/04) Chloride: 3470 mg/kg
		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					
		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry	1				
5		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	2			0.3	
10		<b>Sand</b> 5 YR 6/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	3			0.3	
15							
20			4			0.3	
		<b>TD: 22.00'</b>					
25							

Drill Method: Air Rotary

Drill Date: 4/4/06

Hole Size: 2"

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Checked by: ML

Drilled by: Scarborough

Client: XTO

Project: EMSU # 187

Project No: 4-0119

Location: Lea County, New Mexico

Log: HB-4A

Page: 1 of 1

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					Depth: 0.0' - 1.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 97.7 mg/kg
5 - 10		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					Depth: 1.00' - 2.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 638 mg/kg
10 - 20		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	1			0.3	Depth: 2.00' - 3.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 915 mg/kg
15 - 20			2			0.4	Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: 1280 mg/kg
20 - 22		<b>Sand</b> 5 YR 6/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	3			0.3	Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 553 mg/kg
22 - 25		TD: 22.00'					

Drill Method: Air Rotary

Drill Date: 4/3/06

Hole Size: 2"

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Checked by: ML

Drilled by: Scarborough

Client: XTO

Log: HB-6A

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					Depth: 0.0' - 1.00' BGS (11/9/04) TPH: 286 mg/kg Chloride: 362 mg/kg
5 - 22.00		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					Depth: 1.00' - 2.00' BGS (11/9/04) TPH: 191 mg/kg Chloride: 319 mg/kg  Depth: 2.00' - 3.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 585 mg/kg  Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: 1420 mg/kg  Depth: 6.00' - 8.00' BGS (12/22/04) Chloride: 893 mg/kg  Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 223 mg/kg
10			1			0.0	
15			2			0.0	
20			3			0.0	
TD: 22.00'							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/3/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Project: EMSU # 187

Project No: 4-0119

Location: Lea County, New Mexico

Log: HB-8A

Page: 1 of 1

Geologist: C. Crain/M. Larson

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					Depth: 0.0' - 1.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: <20 mg/kg
5 - 7		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry	1			0.7	Depth: 1.00' - 2.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 42.5 mg/kg
7 - 10		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	2			0.2	Depth: 2.00' - 3.00' BGS (11/9/04) TPH: <20 mg/kg Chloride: 63.8 mg/kg
10 - 15			3			0.0	Depth: 5.00' - 7.00' BGS (4/3/06) Chloride: 489 mg/kg
15 - 20		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	4			0.0	Depth: 10.00' - 11.00' BGS (7/6/06) Chloride: 31.9 mg/kg
20 - 25			5			0.7 δ	Depth: 15.00' - 16.00' BGS (7/6/06) Chloride: <20 mg/kg
25 - 30		TD: 26.00'					

Drill Method: Air Rotary

Drill Date: 4/3/06

Hole Size: 2"

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Checked by: ML

Drilled by: Scarborough

Client: XTO

Log: HB-9A

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Geologist: C. Crain/M. Larson

Location: Lea County, New Mexico

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					Depth: 0.0' - 2.00' BGS (12/22/04) Chloride: 63.8 mg/kg
0-5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					
5-10		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: 21.3 mg/kg
10-30		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	1			0.7	
10-15			2			0.1	Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 872 mg/kg
15-20			3			0.7	
20-25			4			0.1	Depth: 20.00' - 21.00' BGS (4/3/06) Chloride: 1,470 mg/kg
25-30			5			0.1	
30-35		<b>TD: 31.00'</b>					Depth: 30.00' - 31.00' BGS (7/6/06) Chloride: 340 mg/kg

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/3/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-10A

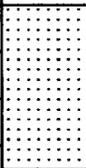
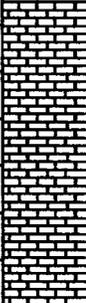
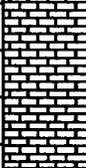
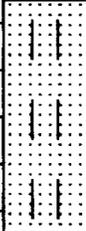
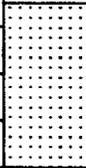
Project: EMSU # 187

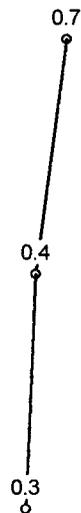
Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					Depth: 0.0' - 2.00' BGS (12/22/04) Chloride: <20 mg/kg
5 - 10		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					Depth: 2.00' - 4.00' BGS (12/22/04) Chloride: <20 mg/kg
10 - 15		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	1				Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: <20 mg/kg
15 - 20		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	2				Depth: 6.00' - 8.00' BGS (12/22/04) Chloride: 31.9 mg/kg
20 - 22.00'		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	3				Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 1,070 mg/kg
22.00'		TD: 22.00'					Depth: 15.00' - 17.00' BGS (4/3/06) Chloride: 1,740 mg/kg
25							Depth: 20.00' - 22.00' BGS (4/3/06) Chloride: 959 mg/kg



Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/4/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-11A

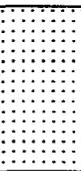
Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Geologist: C. Crain

Location: Lea County, New Mexico

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					Depth: 0.0' - 2.00' BGS (12/22/04) Chloride: <20 mg/kg  Depth: 2.00' - 4.00' BGS (12/22/04) Chloride: <20 mg/kg  Depth: 4.00' - 6.00' BGS (12/22/04) Chloride: <20 mg/kg  Depth: 6.00' - 8.00' BGS (12/22/04) Chloride: <20 mg/kg
		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted					
		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry					
10			1			0.0	
15			2			0.0	Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 117 mg/kg
20			3			0.0	
25							
TD: 22.00'							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/3/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-12

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: C. Crain/M. Larson

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted	1			0.0	Depth: 0.0' - 2.00' BGS (4/4/06) Chloride: <20 mg/kg
5 - 15		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry	2			0.0	Depth: 5.00' - 7.00' BGS (4/4/06) Chloride: 510 mg/kg
15 - 20		<b>Silty Sand</b> 10 YR 7/6, Very fine grained, poorly sorted, damp	3			0.0	Depth: 10.00' - 12.00' BGS (4/4/06) Chloride: 2,200 mg/kg
20 - 25		7 YR 7/3, Pink below 25.0', damp, moderately to poorly cemented sandstone from 25.0' to 35.0', loose below 35.0'	4			0.0	Depth: 15.00' - 17.00' BGS (4/4/06) Chloride: 2980 mg/kg
25 - 30			5			0.0	Depth: 20.00' - 22.00' BGS (4/3/06) Chloride: 3,110 mg/kg SPLP Chloride: 177 mg/l
30 - 35			6			0.3	Depth: 25.00' - 26.00' BGS (4/3/06) Chloride: 2340 mg/kg
35 - 40			7			0.1	Depth: 30.00' - 31.00' BGS (7/6/06) Chloride: 510 mg/kg
40 - 45			8			0.1	Depth: 35.00' - 36.00' BGS (7/6/06) Chloride: 1,020 mg/kg
40		TD: 40.00'	9			0.1	Depth: 40.00' - 41.00' BGS (7/6/06) Chloride: 1,110 mg/kg

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/4/06

Checked by: ML

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-13

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Geologist: C. Crain

Location: Lea County, New Mexico

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5		<b>Sand</b> 5 YR 4/4, Reddish brown quartz sand, fine grained, moderately well sorted	1			0.6	Depth: 0.0' - 2.00' BGS (4/3/06) Chloride: <20 mg/kg
5 - 10		<b>Caliche</b> 10 YR 8/2, Very pale brown, indurated, dry	2			1.0	Depth: 5.00' - 7.00' BGS (4/3/06) Chloride: 404 mg/kg
10 - 15		<b>Silty Sand</b> 7.5 YR 6/4, Light brown quartz sand, very fine grained, poorly sorted, damp	3			0.0	Depth: 10.00' - 12.00' BGS (4/3/06) Chloride: 170 mg/kg
15 - 20		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	4			0.0	
20 - 22.00'		<b>Sand</b> 5 YR 5/6, Yellowish red quartz sand, very fine grained, well sorted, loose, damp	5			0.0	
22.00'	TD: 22.00'						
25							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 4/3/06

Checked by: CC

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-14

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: M. Larson

SUBSURFACE PROFILE			SAMPLE			PID ppm 0.5 1 1.5	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5	[Symbol: Dotted]	<b>Silty Sand</b> 5 YR 4/6, Yellow red, very fine grained quartz sand, poorly sorted, slightly compacted, dry	1	[Symbol: Vertical lines]		0.1	Depth: 0.0' - 2.00' BGS (7/6/06) Chloride: <20 mg/kg
5 - 22	[Symbol: Brick pattern]	<b>Caliche</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, sandy to indurated, very fine grained quartz sand, hard	2	[Symbol: Vertical lines]		0.2	Depth: 5.00' - 6.00' BGS (7/6/06) Chloride: 978 mg/kg
10 - 15	[Symbol: Brick pattern]		3	[Symbol: Vertical lines]		0.2	Depth: 10.00' - 12.00' BGS (7/6/06) Chloride: 681 mg/kg
15 - 20	[Symbol: Brick pattern]		4	[Symbol: Vertical lines]		1.5	Depth: 15.00' - 17.00' BGS (7/6/06) Chloride: 893 mg/kg
20 - 35	[Symbol: Dotted]	<b>Silty Sand- Sandstone</b> 7.5 YR 8/2 to 8/3, Pinkish white to pink, very fine grained quartz sand, soft to friable, dry	5	[Symbol: Vertical lines]		0.4	Depth: 20.00' - 22.00' BGS (7/6/06) Chloride: 1,700 mg/kg
25 - 30	[Symbol: Dotted]		6	[Symbol: Vertical lines]		0.3	Depth: 25.00' - 26.00' BGS (7/6/06) Chloride: 638 mg/kg
30 - 35	[Symbol: Dotted]		7	[Symbol: Vertical lines]		0.2	Depth: 30.00' - 31.00' BGS (7/6/06) Chloride: 553 mg/kg
35 - 40	[Symbol: Dotted]		8	[Symbol: Vertical lines]		0.2	Depth: 35.00' - 36.00' BGS (7/6/06) Chloride: 298 mg/kg
40 - 45	[Symbol: Dotted]	TD: 40.00'	9	[Symbol: Vertical lines]		0.6	

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 7/6/06

Checked by: MJL

Hole Size: 2"

Drilled by: Scarborough

Client: XTO

Log: HB-15

Project: EMSU # 187

Page: 1 of 1

Project No: 4-0119

Location: Lea County, New Mexico

Geologist: M. Larson

SUBSURFACE PROFILE			SAMPLE			PID ppm 1 3 5 7 9	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0 - 5	(Dotted pattern)	<b>Caliche</b> 7.5 YR 8/1, White, sandy to indurated, well pad	1	(Vertical lines)		0.1	Depth: 0.0' - 2.00' BGS (7/6/06) Chloride: 31.9 mg/kg
5 - 6.5	(Horizontal lines)	<b>Silty Sand</b> 5 YR 4/6, Yellowish red, very fine grained quartz sand, very poorly sorted, dry					
6.5 - 10	(Cross-hatch pattern)	<b>Caliche</b> 7.5 YR 8/2 to 7/3, Pinkish white to pink, sandy to indurated, very fine grained quartz sand, hard, dry	2	(Vertical lines)		6.5	Depth: 5.00' - 6.00' BGS (7/6/06) Chloride: 74.4 mg/kg
10 - 15	(Cross-hatch pattern)		3	(Vertical lines)		0.3	Depth: 10.00' - 12.00' BGS (7/6/06) Chloride: <20 mg/kg
15 - 20	(Cross-hatch pattern)		4	(Vertical lines)		0.2	Depth: 15.00' - 16.00' BGS (4/4/06) Chloride: <20 mg/kg
20 - 25	(Dotted pattern)	<b>Silty Sand- Sandstone</b> 7.5 YR 8/2 to 8/3, Pinkish white to pink, very fine grained quartz sand, soft to friable, dry	5	(Vertical lines)		0.2	Depth: 20.00' - 21.00' BGS (4/3/06) Chloride: <20 mg/kg
25 - 26.00	(Dotted pattern)		6	(Vertical lines)		0.2	
		TD: 26.00'					
30							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 7/6/06

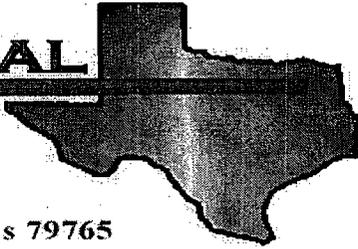
Checked by: MJL

Hole Size: 2"

Drilled by: Scarborough

**Appendix B**  
**Laboratory Reports**

**E NVIRONMENTAL  
LAB OF**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ Well #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 4K10004

Report Date: 11/12/04

## Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Larson + Associates

Date/Time: 11-10-04 @ 0945

Order #: 4K 10004

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	No	15	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	No		
Custody/Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>	
Custody/Seals intact on sample bottles?	Yes	No	<del>Not present</del>	
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	No		
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No		
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No		
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable	

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

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Corrective Action Taken:

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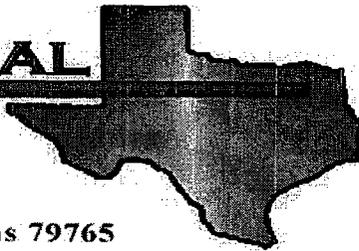


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# ENVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ Well #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 4L23002

Report Date: 12/28/04

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
12/28/04 12:22

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BBH-1 4-6'	4L23002-01	Soil	12/22/04 14:49	12/23/04 08:15
BBH-1 6-8'	4L23002-02	Soil	12/22/04 14:49	12/23/04 08:15
BBH-6 4-6'	4L23002-03	Soil	12/22/04 15:13	12/23/04 08:15
BBH-6 6-8'	4L23002-04	Soil	12/22/04 15:13	12/23/04 08:15
BBH-4 4-6'	4L23002-05	Soil	12/22/04 15:27	12/23/04 08:15
BH-9 0-2'	4L23002-06	Soil	12/22/04 15:40	12/23/04 08:15
BH-9 2-4'	4L23002-07	Soil	12/22/04 15:40	12/23/04 08:15
BH-9 4-6'	4L23002-08	Soil	12/22/04 15:51	12/23/04 08:15
BH-9 6-8'	4L23002-09	Soil	12/22/04 15:51	12/23/04 08:15
BH-10 0-2'	4L23002-10	Soil	12/22/04 16:07	12/23/04 08:15
BH-10 2-4'	4L23002-11	Soil	12/22/04 16:07	12/23/04 08:15
BH-10 4-6'	4L23002-12	Soil	12/22/04 16:18	12/23/04 08:15
BH-10 6-8'	4L23002-13	Soil	12/22/04 16:18	12/23/04 08:15
BH-11 0-2'	4L23002-14	Soil	12/22/04 16:30	12/23/04 08:15
BH-11 2-4'	4L23002-15	Soil	12/22/04 16:30	12/23/04 08:15
BH-11 4-6'	4L23002-16	Soil	12/22/04 16:30	12/23/04 08:15
BH-11 6-8'	4L23002-17	Soil	12/22/04 16:30	12/23/04 08:15

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
12/28/04 12:22

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BBH-1 4-6' (4L23002-01) Soil</b>									
Chloride	968	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BBH-1 6-8' (4L23002-02) Soil</b>									
Chloride	1320	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BBH-6 4-6' (4L23002-03) Soil</b>									
Chloride	1420	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BBH-6 6-8' (4L23002-04) Soil</b>									
Chloride	893	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BBH-4 4-6' (4L23002-05) Soil</b>									
Chloride	1280	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-9 0-2' (4L23002-06) Soil</b>									
Chloride	63.8	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-9 2-4' (4L23002-07) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-9 4-6' (4L23002-08) Soil</b>									
Chloride	21.3	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-9 6-8' (4L23002-09) Soil</b>									
Chloride	170	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-10 0-2' (4L23002-10) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	

Environmental Lab of Texas

*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 Environmental Lab of Texas.*

Page 2 of 5

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
12/28/04 12:22

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BH-10 2-4' (4L23002-11) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-10 4-6' (4L23002-12) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-10 6-8' (4L23002-13) Soil</b>									
Chloride	31.9	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-11 0-2' (4L23002-14) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-11 2-4' (4L23002-15) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-11 4-6' (4L23002-16) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	
<b>BH-11 6-8' (4L23002-17) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EL42307	12/23/04	12/23/04	SW 846 9253	

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456  
**Reported:**  
12/28/04 16:28

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EL42307 - Water Extraction</b>										
<b>Blank (EL42307-BLK1)</b> Prepared & Analyzed: 12/23/04										
Chloride	ND	20.0	mg/kg Wet							
<b>Blank (EL42307-BLK2)</b> Prepared & Analyzed: 12/23/04										
Chloride	ND	20.0	mg/kg Wet							
<b>Matrix Spike (EL42307-MS1)</b> Source: 4L22017-02 Prepared & Analyzed: 12/23/04										
Chloride	500	20.0	mg/kg Wet	500	74.4	85.1	80-120			
<b>Matrix Spike (EL42307-MS2)</b> Source: 4L22017-21 Prepared & Analyzed: 12/23/04										
Chloride	436	20.0	mg/kg Wet	500	0.00	87.2	80-120			
<b>Matrix Spike Dup (EL42307-MSD1)</b> Source: 4L22017-02 Prepared & Analyzed: 12/23/04										
Chloride	489	20.0	mg/kg Wet	500	74.4	82.9	80-120	2.22	20	
<b>Matrix Spike Dup (EL42307-MSD2)</b> Source: 4L22017-21 Prepared & Analyzed: 12/23/04										
Chloride	447	20.0	mg/kg Wet	500	0.00	89.4	80-120	2.49	20	
<b>Reference (EL42307-SRM1)</b> Prepared & Analyzed: 12/23/04										
Chloride	5000		mg/kg	5000		100	80-120			
<b>Reference (EL42307-SRM2)</b> Prepared & Analyzed: 12/23/04										
Chloride	5000		mg/kg	5000		100	80-120			

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
12/28/04 12:22

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

Celey D. Keene Date: 12/28/04

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

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 432-563-1800.

CHAIN—OF—CUSTODY RECORD

**LA** **arison & ssociates, Inc.**  
Environmental Consultants  
507 N. Marienfeld, Ste. 202 • Midland, TX 79701  
Fax: 432-687-0456  
432-687-0901

PARAMETERS/METHOD NUMBER

LAB. ID. NUMBER (LAB USE ONLY)  
REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

CLIENT NAME: PROJECT NO.: SITE MANAGER: PROJECT NAME: LAB. PO #

X10 40119 Mark Hanson Well #187

NUMBER OF CONTAINERS

DATE TIME WATER SOIL OTHER SAMPLE IDENTIFICATION

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	LAB. ID. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
17/22	1449	✓			BBH-1	1		4L 23602-01	
	1449				BBH-1			-02	
	1513				BBH-2			-03	
	1513				BBH-6			-04	
	1521				BBH-4			-05	
	1540				BH-9			-06	
	1546				BH-9			-07	
	1551				BH-9			-08	
	1607				BH-10			-09	
	1607				BH-10			-10	
	1618				BH-10			-11	
	1618				BH-10			-12	
	1630				BH-11			-13	
	1630				BH-11			-14	
	1630				BH-11			-15	
	1630				BH-11			-16	
	1630				BH-11			-17	

RECEIVED BY: (Signature) DATE: TIME:  
 SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #:  
 HAND DELIVERED UPS OTHER:  
 WHITE - RECEIVING LAB  
 YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)  
 PINK - PROJECT MANAGER  
 GOLD - QA/QC COORDINATOR  
 SAMPLE TYPE:

REQUISITIONED BY: (Signature) DATE: 12/23/14 TIME: 0815  
 RECEIVED BY: (Signature) DATE: TIME:  
 TURNAROUND TIME NEEDED: 5 days

RECEIVING LABORATORY: Environmental Lab of TX  
 ADDRESS: 12600 W I-20E STATE: TX ZIP: 79765  
 CITY: Odessa PHONE: 563-1800  
 CONTACT: Mark Hanson  
 SAMPLE CONDITION WHEN RECEIVED: -0.5°C 4oz glass on ice  
 LA CONTACT PERSON: Mark Hanson

## Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Larson + Associates

Date/Time: 12-23-04 @ 0815

Order #: 4L 23002

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	-0.5 C
Shipping container/cooler in good condition?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	N/A
Custody Seals intact on shipping container/cooler?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Not present N/A
Custody Seals intact on sample bottles?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Chain of custody present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	No labels - written on lid
Container labels legible and intact?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	No labels - written on lid
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not Applicable</u>

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
Regarding: \_\_\_\_\_

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Corrective Action Taken:

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## Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Larson + Associates

Date/Time: 12-23-04 @ 0815

Order #: 4L 23002

Initials: JMM

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	No	-0.5 C
Shipping container/cooler in good condition?	Yes	No	N/A
Custody Seals intact on shipping container/cooler?	Yes	No	Not present NA
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	No labels - written on lid
Container labels legible and intact?	Yes	No	No labels - written on lid
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	
VOC samples have zero headspace?	Yes	No	<input checked="" type="checkbox"/> Not Applicable

Other observations:

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### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
Regarding: \_\_\_\_\_

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Corrective Action Taken:

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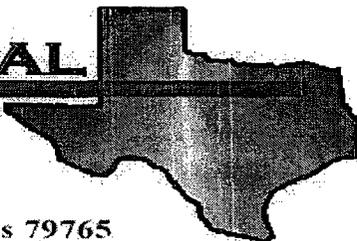


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# ENVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ EMSU #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 6D19010

Report Date: 04/24/06

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

**Reported:**  
04/24/06 17:04

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-12 (15-17')	6D19010-01	Soil	04/04/06 10:15	04/05/06 12:20
HB-2A (10-12')	6D19010-02	Soil	04/04/06 10:38	04/05/06 12:20

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/24/06 17:04

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-12 (15-17') (6D19010-01) Soil</b>									
Chloride	2980	50.0	mg/kg	100	ED62110	04/21/06	04/21/06	EPA 300.0	
<b>HB-2A (10-12') (6D19010-02) Soil</b>									
Chloride	2360	50.0	mg/kg	100	ED62110	04/21/06	04/21/06	EPA 300.0	

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/24/06 17:04

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch ED62110 - Water Extraction</b>										
<b>Blank (ED62110-BLK1)</b> Prepared & Analyzed: 04/21/06										
Chloride	ND	0.500	mg/kg							
<b>LCS (ED62110-BS1)</b> Prepared & Analyzed: 04/21/06										
Chloride	9.35		mg/L	10.0		93.5	80-120			
<b>Calibration Check (ED62110-CCV1)</b> Prepared & Analyzed: 04/21/06										
Chloride	8.60		mg/L	10.0		86.0	80-120			
<b>Duplicate (ED62110-DUP1)</b> Source: 6D19011-09 Prepared & Analyzed: 04/21/06										
Chloride	2380	25.0	mg/kg		2450			2.90	20	

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456  
Reported:  
04/24/06 17:04

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

Raland K Tuttle

Date: 4-25-06

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

**CHAIN—OF—CUSTODY RECORD**



507 N. Marienfeld, Ste. 202 • Midland, TX 79701

REMARKS  
(I.E., FILTERED, UNFILTERED,  
PRESERVED, UNPRESERVED,  
GRAB COMPOSITE)

LAB. ID.  
NUMBER  
(LAB USE ONLY)

**PARAMETERS/METHOD NUMBER**

NUMBER OF CONTAINERS

CLIENT NAME: XTO  
 PROJECT NO.: 4 0119  
 SITE MANAGER: Corey Chain  
 PROJECT NAME: EMSU # 187

PAGE 2 OF 2  
 LAB. PO # 2

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	REMARKS
4/2/06	14:20				HB-10A (10-12)	1		
"	14:26				" (15-17)	1		
"	14:31				" (20-22)	1		
"	14:58				HB-11A (10-12)	1		
"	15:02				" (15-17)	1		
"	15:06				" (20-22)	1		
4/4/06	09:26				HB-10A (10-12)	1		
"	09:42				" (15-17)	1		
"	09:48				" (20-22)	1		
"	09:58				HB-12 (0-2)	1		
"	10:04				" (5-7)	1		
"	10:09				" (10-12)	1		
"	10:15				" (15-17)	1		
"	10:20				" (20-22)	1		
"	10:31				HB-2A (5-7)	1		
"	10:38				" (10-12)	1		
"	10:47				" (15-17)	1		
"	10:54				" (20-22)	1		

SAMPLED BY: (Signature) \_\_\_\_\_ DATE: 4/2/06 RELINQUISHED BY: (Signature) \_\_\_\_\_ DATE: 4/2/06  
 TIME: 14:58 TIME: 14:58

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_  
 TIME: \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_  
 TIME: \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: 4/2/06  
 TIME: 14:20

RECEIVING LABORATORY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
 CITY: \_\_\_\_\_

LA CONTACT PERSON: C. Chain

TURNAROUND TIME NEEDED

**COPY**

RECEIVED BY: (Signature) \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_

COMMENTS:  Add CI 04-19-06 as per attached e-mail

COMMENTS:  Add CI 04-19-06 as per attached e-mail

SAMPLE SHIPPED BY: (Circle) FEDEX \_\_\_\_\_ BUS \_\_\_\_\_ AIRBILL #: \_\_\_\_\_  
 HAND DELIVERED \_\_\_\_\_ UPS \_\_\_\_\_ OTHER: \_\_\_\_\_

SAMPLE SHIPPED BY: (Circle) FEDEX \_\_\_\_\_ BUS \_\_\_\_\_ AIRBILL #: \_\_\_\_\_  
 HAND DELIVERED \_\_\_\_\_ UPS \_\_\_\_\_ OTHER: \_\_\_\_\_

WHITE - RECEIVING LAB  
 YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)  
 PINK - PROJECT MANAGER  
 GOLD - QA/QC COORDINATOR

SAMPLE TYPE: Soil

SAMPLE CONDITION WHEN RECEIVED: 4.5 no label / no seal

**Jeanne McMurrey**

---

**From:** "Cindy Crain" <cindy@laenvironmental.com>  
**To:** "Jeanne McMurrey" <jeanne@elabtxas.com>  
**Sent:** Wednesday, April 19, 2006 10:02 AM  
**Subject:** Request for Additional Analysis

Jeanne,

Would you please run the following two (2) additional samples for Chloride analysis:

**Project:** XTO/EMSU #187  
**Project Number:** 4-0119  
**Lab Order Number:** 6D05019  
**Report Date:** 4/13/06

- Sample HB-12 (15-17') Sampled 4/4/06 at 1015
- Sample HB-2A (10-12') Sampled 4/4/06 at 1038

Please give me a call if you have any questions or need additional information.

Thank you,

Cindy K. Crain, P.G.

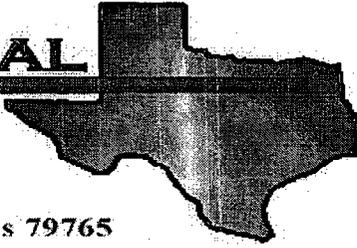
*Larson and Associates, Inc.*  
507 N. Marienfeld, Ste.202  
Midland, TX 79701

Office: (432) 687-0901  
fax: (432) 687-0456  
cell: (432) 556-8665

--

This message has been scanned for viruses and dangerous content by BasinBroadband, and is believed to be clean.

# ENVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ EMSU #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 6D05019

Report Date: 04/28/06

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/28/06 14:18

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-8A (5-7')	6D05019-01	Soil	04/03/06 10:40	04/05/06 12:20
HB-13 (0-2')	6D05019-05	Soil	04/03/06 12:00	04/05/06 12:20
HB-13 (5-7')	6D05019-06	Soil	04/03/06 12:05	04/05/06 12:20
HB-13 (10-12')	6D05019-07	Soil	04/03/06 12:09	04/05/06 12:20
HB-9A (10-12')	6D05019-10	Soil	04/03/06 12:34	04/05/06 12:20
HB-9A (15-17')	6D05019-11	Soil	04/03/06 12:39	04/05/06 12:20
HB-1A (10-12')	6D05019-13	Soil	04/03/06 13:00	04/05/06 12:20
HB-1A (15-17')	6D05019-14	Soil	04/03/06 13:06	04/05/06 12:20
HB-11A (10-12')	6D05019-16	Soil	04/03/06 13:41	04/05/06 12:20
HB-6A (10-12')	6D05019-19	Soil	04/03/06 14:20	04/05/06 12:20
HB-4A (10-12')	6D05019-22	Soil	04/03/06 14:58	04/05/06 12:20
HB-10A (10-12')	6D05019-25	Soil	04/04/06 09:36	04/05/06 12:20
HB-10A (15-17')	6D05019-26	Soil	04/04/06 09:42	04/05/06 12:20
HB-12 (0-2')	6D05019-28	Soil	04/04/06 09:58	04/05/06 12:20
HB-12 (5-7')	6D05019-29	Soil	04/04/06 10:04	04/05/06 12:20
HB-12 (10-12')	6D05019-30	Soil	04/04/06 10:09	04/05/06 12:20
HB-12 (20-22')	6D05019-32	Soil	04/04/06 10:20	04/05/06 12:20
HB-2A (5-7')	6D05019-33	Soil	04/04/06 10:31	04/05/06 12:20
HB-2A (15-17')	6D05019-35	Soil	04/04/06 10:47	04/05/06 12:20

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/28/06 14:18

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-8A (5-7') (6D05019-01) Soil</b>									
Chloride	489	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-13 (0-2') (6D05019-05) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-13 (5-7') (6D05019-06) Soil</b>									
Chloride	404	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-13 (10-12') (6D05019-07) Soil</b>									
Chloride	170	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-9A (10-12') (6D05019-10) Soil</b>									
Chloride	872	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-9A (15-17') (6D05019-11) Soil</b>									
Chloride	766	10.0 mg/kg Wet		2	ED62808	04/27/06	04/28/06	SW 846 9253	
<b>HB-1A (10-12') (6D05019-13) Soil</b>									
Chloride	936	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-1A (15-17') (6D05019-14) Soil</b>									
Chloride	1400	20.0 mg/kg Wet		2	ED62808	04/27/06	04/28/06	SW 846 9253	
<b>HB-11A (10-12') (6D05019-16) Soil</b>									
Chloride	117	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	
<b>HB-6A (10-12') (6D05019-19) Soil</b>									
Chloride	223	20.0 mg/kg Wet		2	ED61207	04/05/06	04/12/06	SW 846 9253	

Environmental Lab of Texas

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Page 2 of 6

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/28/06 14:18

**General Chemistry Parameters by EPA / Standard Methods  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-4A (10-12') (6D05019-22) Soil</b>									
Chloride	553	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-10A (10-12') (6D05019-25) Soil</b>									
Chloride	1070	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-10A (15-17') (6D05019-26) Soil</b>									
Chloride	1740	20.0	mg/kg Wet	2	ED62808	04/27/06	04/28/06	SW 846 9253	
<b>HB-12 (0-2') (6D05019-28) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-12 (5-7') (6D05019-29) Soil</b>									
Chloride	510	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-12 (10-12') (6D05019-30) Soil</b>									
Chloride	2000	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-12 (20-22') (6D05019-32) Soil</b>									
Chloride	3110	20.0	mg/kg Wet	2	ED62808	04/27/06	04/28/06	SW 846 9253	
<b>HB-2A (5-7') (6D05019-33) Soil</b>									
Chloride	3470	20.0	mg/kg Wet	2	ED61209	04/05/06	04/12/06	SW 846 9253	
<b>HB-2A (15-17') (6D05019-35) Soil</b>									
Chloride	681	20.0	mg/kg Wet	2	ED62808	04/27/06	04/28/06	SW 846 9253	

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456  
Reported:  
04/28/06 14:18

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED61207 - Water Extraction**

**Blank (ED61207-BLK1)** Prepared: 04/05/06 Analyzed: 04/12/06

Chloride ND 20.0 mg/kg Wet

**LCS (ED61207-BS1)** Prepared & Analyzed: 04/12/06

Chloride 96.8 mg/kg 100 96.8 80-120

**Matrix Spike (ED61207-MS1)** Source: 6D04010-01 Prepared: 04/05/06 Analyzed: 04/12/06

Chloride 510 20.0 mg/kg Wet 500 0.00 102 80-120

**Matrix Spike Dup (ED61207-MSD1)** Source: 6D04010-01 Prepared: 04/05/06 Analyzed: 04/12/06

Chloride 500 20.0 mg/kg Wet 500 0.00 100 80-120 1.98 20

**Reference (ED61207-SRM1)** Prepared & Analyzed: 04/12/06

Chloride 5050 mg/kg 5000 101 80-120

**Batch ED61209 - Water Extraction**

**Blank (ED61209-BLK1)** Prepared: 04/05/06 Analyzed: 04/12/06

Chloride ND 20.0 mg/kg Wet

**LCS (ED61209-BS1)** Prepared & Analyzed: 04/12/06

Chloride 95.7 mg/kg 100 95.7 80-120

**Matrix Spike (ED61209-MS1)** Source: 6D05019-22 Prepared: 04/05/06 Analyzed: 04/12/06

Chloride 1060 20.0 mg/kg Wet 500 553 101 80-120

**Matrix Spike Dup (ED61209-MSD1)** Source: 6D05019-22 Prepared: 04/05/06 Analyzed: 04/12/06

Chloride 1050 20.0 mg/kg Wet 500 553 99.4 80-120 0.948 20

Environmental Lab of Texas

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Larson & Associates, Inc.  
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Midland TX, 79710

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/28/06 14:18

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch ED61209 - Water Extraction</b>										
<b>Reference (ED61209-SRM1)</b>				Prepared & Analyzed: 04/12/06						
Chloride	4890		mg/kg	5000		97.8	80-120			
<b>Batch ED62808 - Water Extraction</b>										
<b>Blank (ED62808-BLK1)</b>				Prepared: 04/27/06 Analyzed: 04/28/06						
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (ED62808-BS1)</b>				Prepared & Analyzed: 04/28/06						
Chloride	92.5		mg/kg	100		92.5	80-120			
<b>Matrix Spike (ED62808-MS1)</b>				Source: 6D05019-11		Prepared: 04/27/06 Analyzed: 04/28/06				
Chloride	2960		mg/kg	2000	766	110	80-120			
<b>Matrix Spike Dup (ED62808-MSD1)</b>				Source: 6D05019-11		Prepared: 04/27/06 Analyzed: 04/28/06				
Chloride	2980		mg/kg	2000	766	111	80-120	0.673	20	
<b>Reference (ED62808-SRM1)</b>				Prepared & Analyzed: 04/28/06						
Chloride	4950		mg/kg	5000		99.0	80-120			

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Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
04/28/06 14:18

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: Alysa Keene

Date: 04/28/06

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: Larson

Date/Time: 4/5/06 12:20

Order #: WDO5019

Initials: OK

**Sample Receipt Checklist**

Temperature of container/cooler?	Yes	No	4.5 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	<input checked="" type="checkbox"/> Yes	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	ID on jar
Container labels legible and intact?	Yes	No	n/a
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

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**Variance Documentation:**

Contact Person: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

Corrective Action Taken:

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**Jeanne McMurrey**

---

**From:** "Cindy Crain" <cindy@laenvironmental.com>  
**To:** "Jeanne McMurrey" <jeanne@elabtxas.com>  
**Sent:** Thursday, April 27, 2006 9:56 AM  
**Subject:** Request for Additional Soil Analysis

Jeanne,

Would you please run the following five (5) additional samples for Chloride analysis:

**Project:** XTO/EMSU #187  
**Project Number:** 4-0119  
**Lab Order Number:** 6D05019  
**Report Date:** 4/13/06

●	Sample HB-9A (15-17')	Sampled 4/3/06 at 1239
●	Sample HB-10A (15-17')	Sampled 4/4/06 at 0942
●	Sample HB-12 (20-22')	Sampled 4/4/06 at 1020
●	Sample HB-2A (15-17')	Sampled 4/4/06 at 1047
●	Sample HB-1A (15-17')	Sampled 4/3/06 at 1306

Please give me a call if you have any questions or need additional information.

Thank you,

Cindy K. Crain, P.G.

*Larson and Associates, Inc.*  
507 N. Marienfeld, Ste.202  
Midland, TX 79701

Office: (432) 687-0901  
Fax: (432) 687-0456  
Cell: (432) 556-8665

--  
This message has been scanned for viruses and dangerous content by BasinBroadband, and is believed to be clean.

4/27/2006

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-1 0-1'	4K10004-01	Soil	11/09/04 10:10	11/09/04 17:15
HB-1 1-2'	4K10004-02	Soil	11/09/04 10:18	11/09/04 17:15
HB-1 2-3'	4K10004-03	Soil	11/09/04 10:32	11/09/04 17:15
HB-2 0-1'	4K10004-04	Soil	11/09/04 10:49	11/09/04 17:15
HB-2 1-2'	4K10004-05	Soil	11/09/04 10:54	11/09/04 17:15
HB-2 2-3'	4K10004-06	Soil	11/09/04 11:06	11/09/04 17:15
HB-3 0-1'	4K10004-07	Soil	11/09/04 11:11	11/09/04 17:15
HB-3 1-2'	4K10004-08	Soil	11/09/04 11:17	11/09/04 17:15
HB-3 2-3'	4K10004-09	Soil	11/09/04 11:30	11/09/04 17:15
HB-4 0-1'	4K10004-10	Soil	11/09/04 11:37	11/09/04 17:15
HB-4 1-2'	4K10004-11	Soil	11/09/04 11:40	11/09/04 17:15
HB-4 2-3'	4K10004-12	Soil	11/09/04 12:48	11/09/04 17:15
HB-5 0-1'	4K10004-13	Soil	11/09/04 12:52	11/09/04 17:15
HB-5 1-2'	4K10004-14	Soil	11/09/04 12:58	11/09/04 17:15
HB-5 2-3'	4K10004-15	Soil	11/09/04 13:18	11/09/04 17:15
HB-6 0-1'	4K10004-16	Soil	11/09/04 13:21	11/09/04 17:15
HB-6 1-2'	4K10004-17	Soil	11/09/04 13:24	11/09/04 17:15
HB-6 2-3'	4K10004-18	Soil	11/09/04 13:38	11/09/04 17:15
HB-7 0-1'	4K10004-19	Soil	11/09/04 13:33	11/09/04 17:15
HB-7 1-2'	4K10004-20	Soil	11/09/04 13:38	11/09/04 17:15
HB-7 2-3'	4K10004-21	Soil	11/09/04 13:43	11/09/04 17:15
HB-8 0-1'	4K10004-22	Soil	11/09/04 13:54	11/09/04 17:15
HB-8 1-2'	4K10004-23	Soil	11/09/04 13:58	11/09/04 17:15
HB-8 2-3'	4K10004-24	Soil	11/09/04 14:01	11/09/04 17:15
Background 0-1'	4K10004-25	Soil	11/09/04 14:05	11/09/04 17:15
Background 1-2'	4K10004-26	Soil	11/09/04 14:10	11/09/04 17:15
Background 2-3'	4K10004-27	Soil	11/09/04 14:13	11/09/04 17:15

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-1 0-1' (4K10004-01) Soil</b>									
Gasoline Range Organics C6-C12	J [9.70]	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	J
Diesel Range Organics >C12-C35	66.0	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	66.0	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		109 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		125 %	70-130		"	"	"	"	
<b>HB-1 1-2' (4K10004-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		108 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		123 %	70-130		"	"	"	"	
<b>HB-1 2-3' (4K10004-03) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		117 %	70-130		"	"	"	"	
<b>HB-2 0-1' (4K10004-04) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	107	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	107	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		117 %	70-130		"	"	"	"	
<b>HB-2 1-2' (4K10004-05) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	68.0	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	68.0	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		100 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		116 %	70-130		"	"	"	"	

Environmental Lab of Texas

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Midland TX, 79710

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-2 2-3' (4K10004-06) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		113 %	70-130		"	"	"	"	
<b>HB-3 0-1' (4K10004-07) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		92.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		107 %	70-130		"	"	"	"	
<b>HB-3 1-2' (4K10004-08) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		87.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		101 %	70-130		"	"	"	"	
<b>HB-3 2-3' (4K10004-09) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		99.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		113 %	70-130		"	"	"	"	
<b>HB-4 0-1' (4K10004-10) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		119 %	70-130		"	"	"	"	

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Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-4 1-2' (4K10004-11) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		118 %	70-130		"	"	"	"	
<b>HB-4 2-3' (4K10004-12) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		116 %	70-130		"	"	"	"	
<b>HB-5 0-1' (4K10004-13) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		94.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
<b>HB-5 1-2' (4K10004-14) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		95.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		109 %	70-130		"	"	"	"	
<b>HB-5 2-3' (4K10004-15) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		98.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		111 %	70-130		"	"	"	"	

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**Organics by GC**  
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-6 0-1' (4K10004-16) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	286	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>286</b>	<b>10.0</b>	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		87.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		102 %	70-130		"	"	"	"	
<b>HB-6 1-2' (4K10004-17) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/10/04	EPA 8015M	
Diesel Range Organics >C12-C35	191	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>191</b>	<b>10.0</b>	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		89.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.8 %	70-130		"	"	"	"	
<b>HB-6 2-3' (4K10004-18) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>ND</b>	<b>10.0</b>	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		87.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		100 %	70-130		"	"	"	"	
<b>HB-7 0-1' (4K10004-19) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>ND</b>	<b>10.0</b>	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		95.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		110 %	70-130		"	"	"	"	
<b>HB-7 1-2' (4K10004-20) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	142	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbon C6-C35</b>	<b>142</b>	<b>10.0</b>	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		90.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		99.4 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-7 2-3' (4K10004-21) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		89.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130		"	"	"	"	
<b>HB-8 0-1' (4K10004-22) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		107 %	70-130		"	"	"	"	
<b>HB-8 1-2' (4K10004-23) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		71.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		77.6 %	70-130		"	"	"	"	
<b>HB-8 2-3' (4K10004-24) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.4 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		97.6 %	70-130		"	"	"	"	
<b>Background 0-1' (4K10004-25) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		82.0 %	70-130		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Background 1-2' (4K10004-26) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		88.6 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		100 %	70-130		"	"	"	"	
<b>Background 2-3' (4K10004-27) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		93.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		110 %	70-130		"	"	"	"	

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**General Chemistry Parameters by EPA / Standard Methods  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-1 0-1' (4K10004-01) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-1 1-2' (4K10004-02) Soil</b>									
Chloride	808	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	11.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-1 2-3' (4K10004-03) Soil</b>									
Chloride	399	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	10.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-2 0-1' (4K10004-04) Soil</b>									
Chloride	2800	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	8.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-2 1-2' (4K10004-05) Soil</b>									
Chloride	1300	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	5.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-2 2-3' (4K10004-06) Soil</b>									
Chloride	1130	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-3 0-1' (4K10004-07) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	3.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-3 1-2' (4K10004-08) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	6.0		%	1	EK41101	11/10/04	11/11/04	% calculation	

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**General Chemistry Parameters by EPA / Standard Methods**  
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-3 2-3' (4K10004-09) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	5.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-4 0-1' (4K10004-10) Soil</b>									
Chloride	97.7	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	11.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-4 1-2' (4K10004-11) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	11.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-4 2-3' (4K10004-12) Soil</b>									
Chloride	915	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	12.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-5 0-1' (4K10004-13) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	6.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-5 1-2' (4K10004-14) Soil</b>									
Chloride	31.9	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	14.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-5 2-3' (4K10004-15) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	11.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-6 0-1' (4K10004-16) Soil</b>									
Chloride	362	20.0	mg/kg Wet	2	EK41208	11/10/04	11/11/04	SW 846 9253	
% Moisture	2.0		%	1	EK41101	11/10/04	11/11/04	% calculation	

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**General Chemistry Parameters by EPA / Standard Methods**  
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-6 1-2' (4K10004-17) Soil</b>									
Chloride	319	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	4.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-6 2-3' (4K10004-18) Soil</b>									
Chloride	585	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	6.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-7 0-1' (4K10004-19) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	10.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-7 1-2' (4K10004-20) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	12.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-7 2-3' (4K10004-21) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	12.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-8 0-1' (4K10004-22) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	4.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-8 1-2' (4K10004-23) Soil</b>									
Chloride	42.5	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	6.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>HB-8 2-3' (4K10004-24) Soil</b>									
Chloride	63.8	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	

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**General Chemistry Parameters by EPA / Standard Methods**  
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Background 0-1' (4K10004-25) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	3.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>Background 1-2' (4K10004-26) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	8.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
<b>Background 2-3' (4K10004-27) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	

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Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

**Organics by GC - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch EK40906 - Solvent Extraction (GC)**

**Blank (EK40906-BLK1)**

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.4		mg/kg	50.0		76.8	70-130			
Surrogate: 1-Chlorooctadecane	45.4		"	50.0		90.8	70-130			

**Blank (EK40906-BLK2)**

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.3		mg/kg	50.0		76.6	70-130			
Surrogate: 1-Chlorooctadecane	44.3		"	50.0		88.6	70-130			

**LCS (EK40906-BS1)**

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	439		mg/kg	500		87.8	75-125			
Diesel Range Organics >C12-C35	523		"	500		105	75-125			
Total Hydrocarbon C6-C35	962		"	1000		96.2	75-125			
Surrogate: 1-Chlorooctane	49.1		"	50.0		98.2	70-130			
Surrogate: 1-Chlorooctadecane	47.2		"	50.0		94.4	70-130			

**LCS (EK40906-BS2)**

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	447	10.0	mg/kg wet	500		89.4	75-125			
Diesel Range Organics >C12-C35	530	10.0	"	500		106	75-125			
Total Hydrocarbon C6-C35	977	10.0	"	1000		97.7	75-125			
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.6	70-130			
Surrogate: 1-Chlorooctadecane	49.1		"	50.0		98.2	70-130			

**Calibration Check (EK40906-CCV1)**

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	527		mg/kg	500		105	80-120			
Diesel Range Organics >C12-C35	561		"	500		112	80-120			
Total Hydrocarbon C6-C35	1090		"	1000		109	80-120			
Surrogate: 1-Chlorooctane	57.0		"	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	57.7		"	50.0		115	70-130			

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

**Organics by GC - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK40906 - Solvent Extraction (GC)**

**Calibration Check (EK40906-CCV2)**

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	497		mg/kg	500		99.4	80-120			
Diesel Range Organics >C12-C35	559		"	500		112	80-120			
Total Hydrocarbon C6-C35	1060		"	1000		106	80-120			
Surrogate: 1-Chlorooctane	53.8		"	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	55.0		"	50.0		110	70-130			

**Matrix Spike (EK40906-MS1)**

Source: 4K10004-05

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	548	10.0	mg/kg dry	526	ND	104	75-125			
Diesel Range Organics >C12-C35	648	10.0	"	526	68.0	110	75-125			
Total Hydrocarbon C6-C35	1200	10.0	"	1050	68.0	108	75-125			
Surrogate: 1-Chlorooctane	63.6		mg/kg	50.0		127	70-130			
Surrogate: 1-Chlorooctadecane	62.7		"	50.0		125	70-130			

**Matrix Spike (EK40906-MS2)**

Source: 4K10004-15

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	572	10.0	mg/kg dry	562	ND	102	75-125			
Diesel Range Organics >C12-C35	628	10.0	"	562	ND	112	75-125			
Total Hydrocarbon C6-C35	1200	10.0	"	1120	ND	107	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	51.6		"	50.0		103	70-130			

**Matrix Spike Dup (EK40906-MSD1)**

Source: 4K10004-05

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	537	10.0	mg/kg dry	526	ND	102	75-125	2.03	20	
Diesel Range Organics >C12-C35	661	10.0	"	526	68.0	113	75-125	1.99	20	
Total Hydrocarbon C6-C35	1200	10.0	"	1050	68.0	108	75-125	0.00	20	
Surrogate: 1-Chlorooctane	61.2		mg/kg	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	57.1		"	50.0		114	70-130			

**Matrix Spike Dup (EK40906-MSD2)**

Source: 4K10004-15

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	569	10.0	mg/kg dry	562	ND	101	75-125	0.526	20	
Diesel Range Organics >C12-C35	625	10.0	"	562	ND	111	75-125	0.479	20	
Total Hydrocarbon C6-C35	1190	10.0	"	1120	ND	106	75-125	0.837	20	
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	51.5		"	50.0		103	70-130			

Environmental Lab of Texas

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 Environmental Lab of Texas.

Page 13 of 16

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK41101 - General Preparation (Prep)**

**Blank (EK41101-BLK1)** Prepared: 11/10/04 Analyzed: 11/11/04

% Moisture 0.0 %

**Duplicate (EK41101-DUPI)** Source: 4K10004-01 Prepared: 11/10/04 Analyzed: 11/11/04

% Moisture 7.0 % 7.0 0.00 20

**Batch EK41208 - Water Extraction**

**Blank (EK41208-BLK1)** Prepared: 11/09/04 Analyzed: 11/11/04

Chloride ND 20.0 mg/kg Wet

**Matrix Spike (EK41208-MS1)** Source: 4K09008-01 Prepared: 11/09/04 Analyzed: 11/11/04

Chloride 2140 20.0 mg/kg Wet 500 1630 102 80-120

**Matrix Spike Dup (EK41208-MSD1)** Source: 4K09008-01 Prepared: 11/09/04 Analyzed: 11/11/04

Chloride 2150 20.0 mg/kg Wet 500 1630 104 80-120 0.466 20

**Reference (EK41208-SRM1)** Prepared & Analyzed: 11/11/04

Chloride 5000 mg/kg 5000 100 80-120

**Batch EK41209 - Water Extraction**

**Blank (EK41209-BLK1)** Prepared: 11/10/04 Analyzed: 11/11/04

Chloride ND 20.0 mg/kg Wet

**Matrix Spike (EK41209-MS1)** Source: 4K10004-17 Prepared: 11/10/04 Analyzed: 11/11/04

Chloride 808 20.0 mg/kg Wet 500 319 97.8 80-120

Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710	Project: XTO/ Well #187 Project Number: 4-0119 Project Manager: Cindy Crain	Fax: (432) 687-0456  Reported: 11/12/04 16:01
--	---	--

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EK41209 - Water Extraction**

Matrix Spike Dup (EK41209-MSD1)	Source: 4K10004-17	Prepared: 11/10/04 Analyzed: 11/11/04								
Chloride	819	20.0	mg/kg Wet	500	319	100	80-120	1.35	20	
Reference (EK41209-SRM1)	Prepared & Analyzed: 11/11/04									
Chloride	5000		mg/kg	5000		100	80-120			

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

Project: XTO/ Well #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
11/12/04 16:01

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
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:

Raland K Tuttle

Date:

11-15-04

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
James L. Hawkins, Chemist/Geologist  
Sandra Sanchez, Lab Tech.

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 432-563-1800.



CHAIN—OF—CUSTODY RECORD

**LA** arson & associates, Inc. Environmental Consultants  
 507 N. Marientfeld, Ste. 202 • Midland, TX 79701  
 Fax: 432-687-0456  
 432-687-0901

LAB. I.D. NUMBER (LAB USE ONLY)  
 REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

6205019-19  
 -20  
 -21  
 -22  
 -23  
 -24  
 -25  
 -26  
 -27  
 -28  
 -29  
 -30  
 -31  
 -32  
 -33  
 -34  
 -35  
 -36

PARAMETERS/METHOD NUMBER

NUMBER OF CONTAINERS

Chloride

SITE MANAGER: *Cindy Crain*

PROJECT NAME: *EMSU # 187*

PAGE *2* OF *2* LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION
4/3/06	1420		✓		HB-6A (10-12')
"	1426		✓		" (15-17')
"	1431		✓		" (20-22')
"	1458		✓		HB-4A (10-12')
"	1502		✓		" (15-17')
"	1506		✓		" (20-22')
4/4/06	0936		✓		HB-10A (10-12')
"	0942		✓		" (15-17')
"	0948		✓		" (20-22')
"	0958		✓		HB-12 (0-2')
"	1004		✓		" (5-7')
"	1009		✓		" (10-12')
"	1015		✓		" (15-17')
"	1020		✓		" (20-22')
"	1031		✓		HB-2A (5-7')
"	1038		✓		" (10-12')
"	1047		✓		" (15-17')
"	1054		✓		" (20-22')

SAMPLED BY: (Signature) *Cindy Crain* DATE: *4/4/06* TIME: *10:54* RELINQUISHED BY: (Signature) *Cindy Crain* DATE: *4/5/06* TIME: *12:20*

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

COMMENTS:

RECEIVING LABORATORY: *ELOT* RECEIVED BY: (Signature) *Paul Kelly*  
 ADDRESS: \_\_\_\_\_ DATE: *4/5/06* TIME: *12:20*  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_

LA CONTACT PERSON: *C. Crain*

4.5 no label / no seal

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_

FEDEX \_\_\_\_\_ AIRBILL # \_\_\_\_\_

HAND DELIVERED \_\_\_\_\_ UPS \_\_\_\_\_ OTHER: \_\_\_\_\_

TURNAROUND TIME NEEDED \_\_\_\_\_

WHITE - RECEIVING LAB

YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)

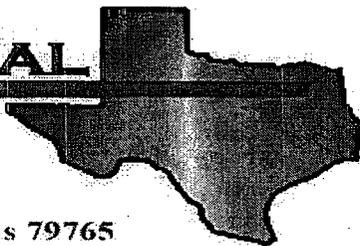
PINK - PROJECT MANAGER

GOLD - QA/QC COORDINATOR

SAMPLE TYPE: *Soil*

SAMPLE CONDITION WHEN RECEIVED: \_\_\_\_\_

# ENVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ EMSU #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 6E01001

Report Date: 05/04/06

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
05/04/06 12:02

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-1A (20-22')	6E01001-01	Soil	04/03/06 13:16	04/05/06 12:20
HB-10A (20-22')	6E01001-02	Soil	04/04/06 09:48	04/05/06 12:20
HB-12 (20-22')	6E01001-03	Soil	04/04/06 10:20	04/05/06 12:20

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456  
Reported:  
05/04/06 12:02

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-1A (20-22') (6E01001-01) Soil</b>									
Chloride	441	10.0	mg/kg	20	EE60204	05/02/06	05/02/06	EPA 300.0	O-04
<b>HB-10A (20-22') (6E01001-02) Soil</b>									
Chloride	959	25.0	mg/kg	50	EE60204	05/02/06	05/02/06	EPA 300.0	O-04
<b>HB-12 (20-22') (6E01001-03) Soil</b>									
Chloride	177	10.0	mg/L	2	EE60312	05/04/06	05/04/06	1312/9253	

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
05/04/06 12:02

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE60204 - Water Extraction**

<b>Blank (EE60204-BLK1)</b>				Prepared & Analyzed: 05/02/06						
Chloride	ND	0.500	mg/kg							
<b>LCS (EE60204-BS1)</b>				Prepared & Analyzed: 05/02/06						
Chloride	10.1	0.500	mg/kg	10.0		101	80-120			
<b>Calibration Check (EE60204-CCV1)</b>				Prepared & Analyzed: 05/02/06						
Chloride	9.88		mg/L	10.0		98.8	80-120			
<b>Duplicate (EE60204-DUP1)</b>		<b>Source: 6D25002-21</b>		Prepared & Analyzed: 05/02/06						
Chloride	124	5.00	mg/kg		125			0.803	20	

**Batch EE60312 - EPA 1312/9253**

<b>Blank (EE60312-BLK1)</b>				Prepared & Analyzed: 05/04/06						
Chloride	14.2	10.0	mg/L							B
<b>LCS (EE60312-BS1)</b>				Prepared & Analyzed: 05/04/06						
Chloride	97.5		mg/L	100		97.5	80-120			
<b>Matrix Spike (EE60312-MS1)</b>		<b>Source: 6E01001-03</b>		Prepared & Analyzed: 05/04/06						
Chloride	674	10.0	mg/L	500	177	99.4	80-120			
<b>Matrix Spike Dup (EE60312-MSD1)</b>		<b>Source: 6E01001-03</b>		Prepared & Analyzed: 05/04/06						
Chloride	665	10.0	mg/L	500	177	97.6	80-120	1.34	20	
<b>Reference (EE60312-SRM1)</b>				Prepared & Analyzed: 05/04/06						
Chloride	4960		mg/L	5000		99.2	80-120			

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Cindy Crain

Fax: (432) 687-0456

Reported:  
05/04/06 12:02

### Notes and Definitions

O-04 This sample was analyzed outside the EPA recommended holding time.  
B Analyte is found in the associated blank as well as in the sample (CLP B-flag).  
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: Raland K Tuttle Date: 5-04-06

Raland K. Tuttle, Lab Manager

Celey D. Keene, Lab Director, Org. Tech Director

Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director

LaTasha Cornish, Chemist

Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

CHAIN—OF—CUSTODY RECORD

**LA** **arson & associates, inc.**  
Environmental Consultants  
507 N. Marienfeld, Ste. 202 • Midland, TX 79701  
Fax: 432-687-0456  
432-687-0901

PARAMETERS/METHOD NUMBER

CLIENT NAME: XTC  
PROJECT NO.: 40119  
SITE MANAGER: Cindy Cain  
PROJECT NAME: EMCU # 157

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER		REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
4/24/04	10:40				HP-8A (9-7)	1			6D 05014-01
"	10:18				" (10-12)	1			-02
"	10:55				" (15-17)	1			-03
"	10:59				" (20-22)	1			-04
"	12:00				HP-13 (0-2)	1			-05
"	12:05				" (5-7)	1			-06
"	12:09				" (10-12)	1			-07
"	12:13				" (15-17)	1			-08
"	12:16				" (20-22)	1			-09
"	12:24				HP-9A (10-12)	1			-10
"	12:29				" (15-17)	1			-11
"	12:41				" (20-22)	1			-12
"	13:00				HP-1A (10-12)	1			-13
"	12:06				" (15-17)	1			-14
"	13:16				" (20-22)	1			-15
"	13:41				HP-11A (10-12)	1			-16
"	13:54				" (15-17)	1			-17
"	14:01				" (20-22)	1			-18

SAMPLED BY: (Signature) \_\_\_\_\_ DATE: 4/23/04 TIME: 12:00  
RELINQUISHED BY: (Signature) \_\_\_\_\_ DATE: 4/23/04 TIME: 12:00  
RECEIVED BY: (Signature) \_\_\_\_\_ DATE: 4/23/04 TIME: 12:00

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
SAMPLE SHIPPED BY: (Circle) FEDEX \_\_\_\_\_ AIRBILL #: \_\_\_\_\_  
HAND DELIVERED \_\_\_\_\_ UPS \_\_\_\_\_ OTHER: \_\_\_\_\_

COMMENTS:  Add 5-1-5 as per attached e-mail  
WHITE - RECEIVING LAB  
YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)  
PINK - PROJECT MANAGER  
GOLD - QA/QC COORDINATOR

RECEIVING LABORATORY: 7-1-01 RECEIVED BY: (Signature) \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
CITY: \_\_\_\_\_ DATE: 4/23/04 TIME: 12:00  
CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_

SAMPLE CONDITION WHEN RECEIVED: 4.5 no label/no seal  
LA CONTACT PERSON: C. Cain  
SAMPLE TYPE: Soil

**Jeanne McMurrey**

---

From: "Cindy Crain" <cindy@laenvironmental.com>  
To: "Jeanne McMurrey" <jeanne@elabtexas.com>  
Sent: Monday, May 01, 2006 9:21 AM  
Subject: FW: Request for Additional Soil Analysis

Jeanne,

Would you please run the following two (2) additional samples for Chloride analysis:

Project: XTO/EMSU #187  
Project Number: 4-0119  
Lab Order Number: 6D05019  
Report Date: 4/13/06

- Sample HB-10A (20-22') Sampled 4/4/06 at 0948
- Sample HB-1A (20-22') Sampled 4/3/06 at 1316

In addition, please run the following sample for SPLP analysis for chloride:

- Sample HB-12 (20-22') Sampled 4/4/06 at 1020

Please give me a call if you have any questions or need additional information.

Thank you,

Cindy K. Crain, P.G.

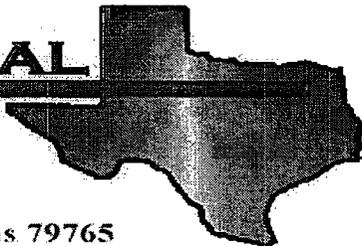
*Larson and Associates, Inc.*  
507 N. Marienfeld, Ste.202  
Midland, TX 79701

office: (432) 687-0901  
fax: (432) 687-0956  
cell: (432) 556-8665

--  
This message has been scanned for viruses and dangerous content by BasinBroadband, and is believed to be clean.

5/1/2006

# **E** NVIRONMENTAL LAB OF



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ EMSU #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 6G07011

Report Date: 07/14/06

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-12, 25-26'	6G07011-01	Soil	07/06/06 09:18	07/07/06 11:10
HB-12, 30-31'	6G07011-02	Soil	07/06/06 09:30	07/07/06 11:10
HB-12, 35-36'	6G07011-03	Soil	07/06/06 09:36	07/07/06 11:10
HB-14, 0-2'	6G07011-05	Soil	07/06/06 10:10	07/07/06 11:10
HB-14, 5-6'	6G07011-06	Soil	07/06/06 10:15	07/07/06 11:10
HB-14, 10-11'	6G07011-07	Soil	07/06/06 10:20	07/07/06 11:10
HB-14, 15-16'	6G07011-08	Soil	07/06/06 10:23	07/07/06 11:10
HB-14, 20-21'	6G07011-09	Soil	07/06/06 10:28	07/07/06 11:10
HB-14, 25-26'	6G07011-10	Soil	07/06/06 10:34	07/07/06 11:10
HB-14, 30-31'	6G07011-11	Soil	07/06/06 10:40	07/07/06 11:10
HB-14, 35-36'	6G07011-12	Soil	07/06/06 10:48	07/07/06 11:10
Background, 0-2'	6G07011-14	Soil	07/06/06 13:26	07/07/06 11:10
Background, 5-6'	6G07011-15	Soil	07/06/06 13:30	07/07/06 11:10
Background, 10-11'	6G07011-16	Soil	07/06/06 13:34	07/07/06 11:10
Background, 15-16'	6G07011-17	Soil	07/06/06 13:36	07/07/06 11:10
Background, 20-21'	6G07011-18	Soil	07/06/06 13:43	07/07/06 11:10
Background, 25-26'	6G07011-19	Soil	07/06/06 13:50	07/07/06 11:10
Background, 30-31'	6G07011-20	Soil	07/06/06 14:02	07/07/06 11:10
Background, 35-36'	6G07011-21	Soil	07/06/06 14:10	07/07/06 11:10
HB-8A, 10-11'	6G07011-23	Soil	07/06/06 14:42	07/07/06 11:10
HB-8A, 15-16'	6G07011-24	Soil	07/06/06 14:46	07/07/06 11:10
HB-8A, 20-21'	6G07011-25	Soil	07/06/06 14:53	07/07/06 11:10
HB-15, 0-2'	6G07011-27	Soil	07/06/06 15:30	07/07/06 11:10
HB-15, 5-6'	6G07011-28	Soil	07/06/06 15:35	07/07/06 11:10
HB-15, 10-11'	6G07011-29	Soil	07/06/06 15:40	07/07/06 11:10
HB-15, 15-16'	6G07011-30	Soil	07/06/06 15:45	07/07/06 11:10
HB-15, 20-21'	6G07011-31	Soil	07/06/06 15:48	07/07/06 11:10
HB-9A, 20-21'	6G07011-33	Soil	07/06/06 16:20	07/07/06 11:10
HB-9A, 25-26'	6G07011-34	Soil	07/06/06 16:27	07/07/06 11:10
HB-9A, 30-31'	6G07011-35	Soil	07/06/06 16:34	07/07/06 11:10

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P.O. Box 50685  
Midland TX, 79710

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-12, 25-26' (6G07011-01) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		96.0 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		98.2 %	70-130		"	"	"	"	
<b>HB-14, 15-16' (6G07011-08) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		98.6 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		99.0 %	70-130		"	"	"	"	
<b>HB-15, 5-6' (6G07011-28) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62601	07/07/06	07/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		96.8 %	70-130		"	"	"	"	

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**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-12, 25-26' (6G07011-01) Soil</b>									
Chloride	2340	20.0	mg/kg Wet	2	EG61003	07/10/06	07/11/06	SW 846 9253	
% Moisture	4.3	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
<b>HB-12, 30-31' (6G07011-02) Soil</b>									
Chloride	510	20.0	mg/kg Wet	2	EG61003	07/10/06	07/11/06	SW 846 9253	
<b>HB-12, 35-36' (6G07011-03) Soil</b>									
Chloride	1020	20.0	mg/kg Wet	2	EG61003	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 0-2' (6G07011-05) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 5-6' (6G07011-06) Soil</b>									
Chloride	978	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 10-11' (6G07011-07) Soil</b>									
Chloride	681	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 15-16' (6G07011-08) Soil</b>									
Chloride	893	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
% Moisture	6.9	0.1	%	1	EG61010	07/07/06	07/10/06	% calculation	
<b>HB-14, 20-21' (6G07011-09) Soil</b>									
Chloride	1700	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 25-26' (6G07011-10) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-14, 30-31' (6G07011-11) Soil</b>									
Chloride	553	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	

Environmental Lab of Texas

*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 Environmental Lab of Texas.*

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Midland TX, 79710

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-14, 35-36' (6G07011-12) Soil</b>									
Chloride	298	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 0-2' (6G07011-14) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 5-6' (6G07011-15) Soil</b>									
Chloride	31.9	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 10-11' (6G07011-16) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 15-16' (6G07011-17) Soil</b>									
Chloride	85.1	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 20-21' (6G07011-18) Soil</b>									
Chloride	42.5	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 25-26' (6G07011-19) Soil</b>									
Chloride	21.3	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 30-31' (6G07011-20) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>Background, 35-36' (6G07011-21) Soil</b>									
Chloride	ND	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-8A, 10-11' (6G07011-23) Soil</b>									
Chloride	31.9	20.0	mg/kg Wet	2	EG61004	07/10/06	07/11/06	SW 846 9253	

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Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-8A, 15-16' (6G07011-24) Soil</b>									
Chloride	21.3	20.0 mg/kg Wet		2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-8A, 20-21' (6G07011-25) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-15, 0-2' (6G07011-27) Soil</b>									
Chloride	31.9	20.0 mg/kg Wet		2	EG61004	07/10/06	07/11/06	SW 846 9253	
<b>HB-15, 5-6' (6G07011-28) Soil</b>									
Chloride	74.4	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
% Moisture	3.0	0.1 %		1	EG61010	07/07/06	07/10/06	% calculation	
<b>HB-15, 10-11' (6G07011-29) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
<b>HB-15, 15-16' (6G07011-30) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
<b>HB-15, 20-21' (6G07011-31) Soil</b>									
Chloride	ND	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
<b>HB-9A, 20-21' (6G07011-33) Soil</b>									
Chloride	1470	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
<b>HB-9A, 25-26' (6G07011-34) Soil</b>									
Chloride	319	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	
<b>HB-9A, 30-31' (6G07011-35) Soil</b>									
Chloride	340	20.0 mg/kg Wet		2	EG61005	07/10/06	07/11/06	SW 846 9253	

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**Organics by GC - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EF62601 - Solvent Extraction (GC)**

**Blank (EF62601-BLK1)**

Prepared: 07/07/06 Analyzed: 07/08/06

Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	47.9		mg/kg	50.0		95.8	70-130			
Surrogate: 1-Chlorooctadecane	47.0		"	50.0		94.0	70-130			

**LCS (EF62601-BS1)**

Prepared: 07/07/06 Analyzed: 07/08/06

Carbon Ranges C6-C12	511	10.0	mg/kg wet	500		102	75-125			
Carbon Ranges C12-C28	517	10.0	"	500		103	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	1030	10.0	"	1000		103	75-125			
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	48.1		"	50.0		96.2	70-130			

**Calibration Check (EF62601-CCV1)**

Prepared: 07/07/06 Analyzed: 07/10/06

Carbon Ranges C6-C12	272		mg/kg	250		109	80-120			
Carbon Ranges C12-C28	277		"	250		111	80-120			
Total Hydrocarbon nC6-nC35	549		"	500		110	80-120			
Surrogate: 1-Chlorooctane	46.9		"	50.0		93.8	70-130			
Surrogate: 1-Chlorooctadecane	44.9		"	50.0		89.8	70-130			

**Matrix Spike (EF62601-MS1)**

Source: 6G07010-02

Prepared: 07/07/06 Analyzed: 07/08/06

Carbon Ranges C6-C12	509	10.0	mg/kg dry	541	ND	94.1	75-125			
Carbon Ranges C12-C28	521	10.0	"	541	ND	96.3	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1030	10.0	"	1080	ND	95.4	75-125			
Surrogate: 1-Chlorooctane	55.8		mg/kg	50.0		112	70-130			
Surrogate: 1-Chlorooctadecane	48.6		"	50.0		97.2	70-130			

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EF62601 - Solvent Extraction (GC)**

**Matrix Spike Dup (EF62601-MSD1)**

Source: 6G07010-02

Prepared: 07/07/06

Analyzed: 07/08/06

Carbon Ranges C6-C12	513	10.0	mg/kg dry	541	ND	94.8	75-125	0.783	20	
Carbon Ranges C12-C28	522	10.0	"	541	ND	96.5	75-125	0.192	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1040	10.0	"	1080	ND	96.3	75-125	0.966	20	
Surrogate: 1-Chlorooctane	58.7		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	49.6		"	50.0		99.2	70-130			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EG61003 - General Preparation (WetChem)**

<b>Blank (EG61003-BLK1)</b>		Prepared: 07/10/06 Analyzed: 07/11/06								
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (EG61003-BS1)</b>		Prepared & Analyzed: 07/11/06								
Chloride	83.0		mg/kg	100		83.0	80-120			
<b>Matrix Spike (EG61003-MS1)</b>		<b>Source: 6G07006-01</b>		Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	17800	20.0	mg/kg Wet	500	17200	120	80-120			
<b>Matrix Spike Dup (EG61003-MSD1)</b>		<b>Source: 6G07006-01</b>		Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	17800	20.0	mg/kg Wet	500	17200	120	80-120	0.00	20	
<b>Reference (EG61003-SRM1)</b>		Prepared & Analyzed: 07/11/06								
Chloride	50.0		mg/kg	50.0		100	80-120			

**Batch EG61004 - General Preparation (WetChem)**

<b>Blank (EG61004-BLK1)</b>		Prepared: 07/10/06 Analyzed: 07/11/06								
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (EG61004-BS1)</b>		Prepared & Analyzed: 07/11/06								
Chloride	80.8		mg/kg	100		80.8	80-120			
<b>Matrix Spike (EG61004-MS1)</b>		<b>Source: 6G07011-07</b>		Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	1110	20.0	mg/kg Wet	500	681	85.8	80-120			
<b>Matrix Spike Dup (EG61004-MSD1)</b>		<b>Source: 6G07011-07</b>		Prepared: 07/10/06 Analyzed: 07/11/06						
Chloride	1110	20.0	mg/kg Wet	500	681	85.8	80-120	0.00	20	

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EG61004 - General Preparation (WetChem)**

**Reference (EG61004-SRM1)**

Prepared & Analyzed: 07/11/06

Chloride 51.0 mg/kg 50.0 102 80-120

**Batch EG61005 - General Preparation (WetChem)**

**Blank (EG61005-BLK1)**

Prepared: 07/10/06 Analyzed: 07/11/06

Chloride ND 20.0 mg/kg Wet

**LCS (EG61005-BS1)**

Prepared & Analyzed: 07/11/06

Chloride 84.0 mg/kg 100 84.0 80-120

**Matrix Spike (EG61005-MS1)**

Source: 6G07011-30

Prepared: 07/10/06 Analyzed: 07/11/06

Chloride 489 20.0 mg/kg Wet 500 0.00 97.8 80-120

**Matrix Spike Dup (EG61005-MSD1)**

Source: 6G07011-30

Prepared: 07/10/06 Analyzed: 07/11/06

Chloride 489 20.0 mg/kg Wet 500 0.00 97.8 80-120 0.00 20

**Reference (EG61005-SRM1)**

Prepared & Analyzed: 07/11/06

Chloride 52.1 mg/kg 50.0 104 80-120

**Batch EG61010 - General Preparation (Prep)**

**Blank (EG61010-BLK1)**

Prepared: 07/07/06 Analyzed: 07/11/06

% Moisture ND 0.1 %

**Duplicate (EG61010-DUP1)**

Source: 6G07002-01

Prepared: 07/07/06 Analyzed: 07/10/06

% Solids 92.8 % 94.6 1.92 20

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EG61010 - General Preparation (Prep)</b>										
<b>Duplicate (EG61010-DUP2)</b> <b>Source: 6G07004-12</b> <b>Prepared: 07/07/06 Analyzed: 07/10/06</b>										
% Solids	86.8		%		87.8			1.15	20	
<b>Duplicate (EG61010-DUP3)</b> <b>Source: 6G07007-03</b> <b>Prepared: 07/07/06 Analyzed: 07/10/06</b>										
% Solids	90.1		%		89.0			1.23	20	
<b>Duplicate (EG61010-DUP4)</b> <b>Source: 6G07012-03</b> <b>Prepared: 07/07/06 Analyzed: 07/10/06</b>										
% Solids	95.2		%		94.0			1.27	20	

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### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: Raland K Tuttle

Date: 7-14-06

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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 432-563-1800.

CHAIN-OF-CUSTODY RECORD

PARAMETERS/METHOD NUMBER

CLIENT NAME: XTO Energy, Inc.  
 PROJECT NO.: 4-0119  
 SITE MANAGER: Mark Hansen  
 PROJECT NAME: EMSU Well #187

LAB. I.D. NUMBER (LAB USE ONLY)  
 REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

LAB. I.D. NUMBER (LAB USE ONLY)  
 REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

RECEIVED BY: (Signature) DATE: TIME:  
 SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS AIRBILL # UPS OTHER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
1/6/06	09:18		X		H8-12, 25-26'	1		6907011 -01
	09:30				H8-12, 30-31'	1		-02
	09:36				H8-12, 35-36'	1		-03
	09:45				H8-12, 40-41'	1		-04
	10:10				H8-14, 0-2'	1		-05
	10:15				H8-14, 5-6'	1		-06
	10:20				H8-14, 10-11'	1		-07
	10:23				H8-14, 15-16'	1		-08
	10:25				H8-14, 20-21'	1		-09
	10:31				H8-14, 25-26'	1		-10
	10:40				H8-14, 30-31'	1		-11
	10:48				H8-14, 35-36'	1		-12
	10:58				H8-14, 40-41'	1		-13
	13:26				Background, 0-2'	1		-14
	13:30				Background, 5-6'	1		-15
	13:34				Background, 10-11'	1		-16
	13:36				Background, 15-16'	1		-17
	13:43				Background, 20-21'	1		-18

RECEIVING LABORATORY: ELI 1-20 E RECEIVED BY: (Signature) DATE: 7/7/06 TIME: 16:34  
 ADDRESS: 17600 W 1-20 E STATE: TX ZIP: 79765  
 CITY: Odessa CONTACT: Island Tuffe PHONE: (432) 543-1800  
 COMMENTS: 4oz glass 4.0 w/labels  
 LA CONTACT PERSON: M. Hansen  
 SAMPLE TYPE: Soil

CHAIN-OF-CUSTODY RECORD

PARAMETERS/METHOD NUMBER

SITE MANAGER: Mark Larson

CLIENT NAME: XTO Energy, Inc

Arison & Associates, Inc. Environmental Consultants  
 507 N. Martenfeld, Ste. 202 • Midland, TX 79701  
 Fax: 432-687-0456  
 432-687-0901

PROJECT NAME: EMSU well 1487

PROJECT NO.: 4-0119

LAB. PO # 2 OF 2

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E. FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
7/6/06	8:50		X		Background 25-26'	1	TPH (Bois Project) < Chlonda	6507011-19	
	14:02				Background 30-31'	1			-20
	14:10				Background 35-36'	1			-21
	14:15				Background 40-41'	1			-22
	14:42				HB-8A, 10-11'	1			-23
	14:46				HB-8A, 15-16'	1			-24
	14:53				HB-8A, 20-21'	1			-25
	15:00				HB-8A, 26-26'	1			-26
	15:30				HB-15, 0-21'	1			-27
	15:35				HB-15, 5-6'	1			-28
	15:40				HB-15, 10-11'	1			-29
	15:45				HB-15, 15-16'	1			-30
	15:48				HB-15, 20-21'	1			-31
	15:55				HB-15, 25-26'	1			-32
	16:20				HB-9A, 20-21'	1			-33
	16:27				HB-9A, 25-26'	1			-34
	16:34				HB-9A, 30-31'	1			-35

SAMPLED BY: (Signature) DATE: 7/6/06 TIME: 16:34  
 RELINQUISHED BY: (Signature) DATE: 7/7/06 TIME: 11:10  
 RECEIVED BY: (Signature) DATE: 7/7/06 TIME: 11:10

RECEIVED BY: (Signature) DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 SAMPLE SHIPPED BY: (Circle) FEDEX  HAND DELIVERED  BUS  UPS  AIRBILL # \_\_\_\_\_ OTHER: \_\_\_\_\_

COMMENTS: TURNAROUND TIME NEEDED \_\_\_\_\_  
 RECEIVING LABORATORY: Environmental Lab of Texas RECEIVED BY: (Signature) Mark Kelly  
 ADDRESS: 12606 W 1-20 E STATE: TX ZIP: 77165  
 CITY: Houston PHONE: (281) 563-1800 DATE: 7/7/06 TIME: 11:10  
 CONTACT: Robert Tuttle  
 SAMPLE CONDITION WHEN RECEIVED: \_\_\_\_\_  
 LA CONTACT PERSON: M. Larson  
 SAMPLE TYPE: Soil

Environmental Lab of Texas  
 Variance / Corrective Action Report – Sample Log-In

Client: Larson

Date/Time: 7/7/06 11:10

Order #: 6807011

Initials: ck

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	4:0 C
Shipping container/cooler in good condition?	<del>Yes</del>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>
Custody Seals intact on sample bottles?	Yes	No	<del>Not present</del>
Chain of custody present?	<del>Yes</del>	No	
Sample Instructions complete on Chain of Custody?	<del>Yes</del>	No	
Chain of Custody signed when relinquished and received?	<del>Yes</del>	No	
Chain of custody agrees with sample label(s)	<del>Yes</del>	No	ED on lid
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	<del>Yes</del>	No	
Samples in proper container/bottle?	<del>Yes</del>	No	
Samples properly preserved?	<del>Yes</del>	No	
Sample bottles intact?	<del>Yes</del>	No	
Preservations documented on Chain of Custody?	<del>Yes</del>	No	
Containers documented on Chain of Custody?	<del>Yes</del>	No	
Sufficient sample amount for indicated test?	<del>Yes</del>	No	
All samples received within sufficient hold time?	<del>Yes</del>	No	
VOC samples have zero headspace?	<del>Yes</del>	No	Not Applicable

Other observations:

\_\_\_\_\_

\_\_\_\_\_

Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

\_\_\_\_\_

\_\_\_\_\_

Corrective Action Taken:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

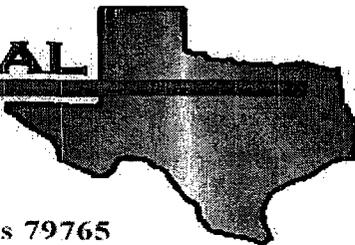
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**E NVIRONMENTAL  
LAB OF**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: XTO/ EMSU #187

Project Number: 4-0119

Location: None Given

Lab Order Number: 6G17005

Report Date: 07/20/06

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HB-12 40-41'	6G17005-01	Soil	07/06/06 09:45	07/07/06 11:10

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>HB-12 40-41' (6G17005-01) Soil</b>									
Chloride	1110	20.0	mg/kg	40	EG61910	07/19/06	07/19/06	EPA 300.0	

Environmental Lab of Texas

*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 Environmental Lab of Texas.*

Page 2 of 4

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EG61910 - General Preparation (WetChem)</b>										
<b>Blank (EG61910-BLK1)</b>				Prepared & Analyzed: 07/19/06						
Chloride	ND	0.500	mg/kg							
<b>LCS (EG61910-BS1)</b>				Prepared & Analyzed: 07/19/06						
Chloride	10.2	0.500	mg/kg	10.0		102	80-120			
<b>Calibration Check (EG61910-CCV1)</b>				Prepared & Analyzed: 07/19/06						
Chloride	10.2		mg/L	10.0		102	80-120			
<b>Duplicate (EG61910-DUP1)</b>				Source: 6G14012-02		Prepared & Analyzed: 07/19/06				
Chloride	542	10.0	mg/kg		544			0.368	20	
<b>Duplicate (EG61910-DUP2)</b>				Source: 6G14008-03		Prepared & Analyzed: 07/19/06				
Chloride	63.5	5.00	mg/kg		67.2			5.66	20	
<b>Matrix Spike (EG61910-MS1)</b>				Source: 6G14012-02		Prepared & Analyzed: 07/19/06				
Chloride	796	10.0	mg/kg	200	544	126	80-120			S-07
<b>Matrix Spike (EG61910-MS2)</b>				Source: 6G14008-03		Prepared & Analyzed: 07/19/06				
Chloride	168	5.00	mg/kg	100	67.2	101	80-120			

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

Project: XTO/ EMSU #187  
Project Number: 4-0119  
Project Manager: Mark Larson

Fax: (432) 687-0456

### Notes and Definitions

S-07 Recovery outside Laboratory historical or method prescribed limits.  
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: Raland K Tuttle Date: 7-20-06

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

CHAIN-OF-CUSTODY RECORD

**Arison & Associates, Inc.**  
Environmental Consultants  
507 N. Marienfeld, Ste. 202 • Midland, TX 79701  
Fax: 432-687-0456  
432-687-0901

PARAMETERS/METHOD NUMBER

CLIENT NAME: **XTO Energy Inc.**  
PROJECT NO.: **4-0119**  
LAB. PO # **2**

SITE MANAGER: **Marilyn Larson**  
PROJECT NAME: **EMSU Well #187**

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
1/6/06	09:18		X		HB-12, 25-26'	1	6907011 -01
	09:30				HB-12, 30-31'	1	-02
	09:36				HB-12, 35-36'	1	-03
	09:45				HB-12, 40-41'	1	-04
	10:10				HB-14, 0-2'	1	05
	10:15				HB-14, 5-6'	1	-06
	10:25				HB-14, 10-11'	1	-07
	10:28				HB-14, 15-16'	1	-08
	10:29				HB-14, 20-21'	1	-09
	10:31				HB-14, 25-26'	1	-10
	10:40				HB-14, 30-31'	1	-11
	10:48				HB-14, 35-36'	1	-12
	10:53				HB-14, 40-41'	1	-13
	13:26				background, 0-2'	1	-14
	13:30				background, 5-6'	1	-15
	13:34				background, 10-11'	1	-16
	13:36				background, 15-16'	1	-17
	13:43				background, 20-21'	1	-18

SAMPLED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
RELINQUISHED BY: (Signature) \_\_\_\_\_ DATE: 7/7/06 TIME: 16:34  
RECEIVED BY: (Signature) \_\_\_\_\_ DATE: 7/7/06 TIME: 11:10

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
SAMPLE SHIPPED BY: (Circle) FEDEX  HAND DELIVERED  BUS  UPS  AIRBILL # \_\_\_\_\_ OTHER: \_\_\_\_\_

COMMENTS: \*Add CI-07-17-06 @ 0800 as per attached e-mail

RECEIVING LABORATORY: **ELI**  
ADDRESS: **12600 W 1-20 E**  
CITY: **Odessa TX** STATE: **TX** ZIP: **79765**  
CONTACT: **Richard Tuthill** PHONE: **(432) 563-1800**

RECEIVED BY: (Signature) \_\_\_\_\_  
LA CONTACT PERSON: **M. Larson**  
SAMPLE CONDITION WHEN RECEIVED: **402 glass 4.0 w/labels**

TURNAROUND TIME NEEDED \_\_\_\_\_  
WHITE - RECEIVING LAB  
YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)  
PINK - PROJECT MANAGER  
GOLD - QA/QC COORDINATOR

**COPY**

SAMPLE TYPE: **Soil**

CHAIN-OF-CUSTODY RECORD

**Arison & Associates, Inc.**  
Environmental Consultants  
507 N. Marienfeld, Ste. 202 • Midland, TX 79701  
Fax: 432-687-0456  
432-687-0901

LAB ID NUMBER (LAB USE ONLY)  
REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

LAB ID NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
607011-19	
	-20
	-21
	-22
	-23
	-24
	-25
	-26
	-27
	-28
	-29
	-30
	-31
	-32
	-33
	-34
	-35

PARAMETERS/METHOD NUMBER	NUMBER OF CONTAINERS
TPH (Soils Procedure)	1
Chloride	1
Background 25-26'	1
Background 30-31'	1
Background 35-36'	1
Background 40-41'	1
HB-8A, 10-11'	1
HB-8A, 15-16'	1
HB-8A, 20-21'	1
HB-8A, 25-26'	1
HB-15, 0-21'	1
HB-15, 5-6'	1
HB-15, 10-11'	1
HB-15, 15-16'	1
HB-15, 20-21'	1
HB-15, 25-26'	1
HB-9A, 20-21'	1
HB-9A, 25-26'	1
HB-9A, 30-31'	1

CLIENT NAME: **XTO Energy, Inc.**  
SITE MANAGER: **Mark Larson**  
PROJECT NAME: **EMSU well 1187**  
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION
7/6/04	13:50		X		Background 25-26'
	14:02				Background 30-31'
	14:10				Background 35-36'
	14:15				Background 40-41'
	14:42				HB-8A, 10-11'
	14:46				HB-8A, 15-16'
	14:53				HB-8A, 20-21'
	15:00				HB-8A, 25-26'
	15:30				HB-15, 0-21'
	15:35				HB-15, 5-6'
	15:40				HB-15, 10-11'
	15:45				HB-15, 15-16'
	15:48				HB-15, 20-21'
	15:55				HB-15, 25-26'
	16:20				HB-9A, 20-21'
	16:27				HB-9A, 25-26'
	16:39				HB-9A, 30-31'

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

SAMPLE SHIPPED BY: (Circle) FEDEX  HAND DELIVERED  BUS  UPS  AIRBILL # \_\_\_\_\_ OTHER: \_\_\_\_\_

WHITE - RECEIVING LAB  
YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)  
PINK - PROJECT MANAGER  
GOLD - QA/QC COORDINATOR

**COPY**

PAGE 2 OF 2

SAMPLED BY: (Signature) \_\_\_\_\_ DATE: 7/6/04 TIME: 16:34  
RELINQUISHED BY: (Signature) \_\_\_\_\_ DATE: 7/7/04 TIME: 11:10  
RECEIVED BY: (Signature) \_\_\_\_\_ DATE: 7/7/04 TIME: 11:10

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

TURNAROUND TIME NEEDED

COMMENTS: RECEIVING LABORATORY: **ENVIRONMENTAL LAB OF TEXAS**  
ADDRESS: **12602 W 1-20 E**  
CITY: **Odessa, TX** STATE: **TX** ZIP: **79762**  
CONTACT: **Robert Tull** PHONE: **(432) 563-1806**

LA CONTACT PERSON: **M. Larson**

SAMPLE TYPE: **Soil**

Environmental Lab of Texas  
Variance / Corrective Action Report – Sample Log-In

Client: Larson  
 Date/Time: 7/7/06 11:10  
 Order #: 6407011 6417005  
 Initials: ck

COPY

Sample Receipt Checklist

	Yes	No	
Temperature of container/cooler?			4.0 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Custody Seals intact on shipping container/cooler?	<input type="checkbox"/>	<input type="checkbox"/>	<del>Not present</del>
Custody Seals intact on sample bottles?	<input type="checkbox"/>	<input type="checkbox"/>	<del>Not present</del>
Chain of custody present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>ID on lid</u>
Container labels legible and intact?	<input type="checkbox"/>	<input type="checkbox"/>	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Samples properly preserved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sample bottles intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not Applicable

Other observations:

Variance Documentation:

Contact Person: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Jeanne McMurrey**

---

**From:** "Mark Larson" <mark@laenvironmental.com>  
**To:** <jeanne@elabtexas.com>  
**Sent:** Saturday, July 15, 2006 10:39 PM  
**Subject:** Re: Additional Analysis, Report No. 6G07011

Jeanne: Please run the following sample for chloride:

HB-12, 40 to 41'

Also, I detected a typo in the report for sample 6G07011-21 (Background, 35-26'), which should be Background, 35 - 36'?

Thanks,

Mark

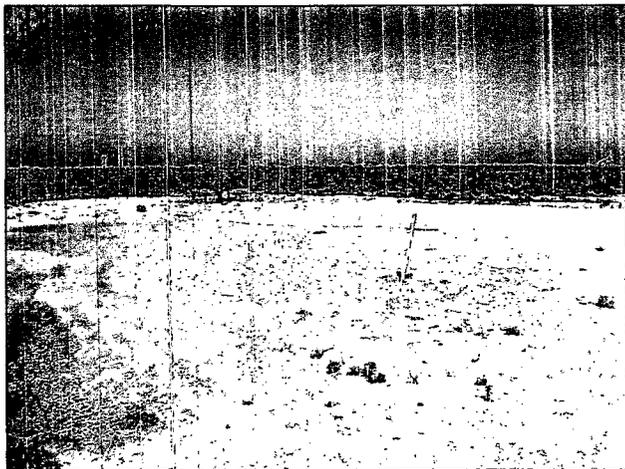
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This message has been scanned for viruses and dangerous content by **BasinBroadband**, and is believed to be clean.

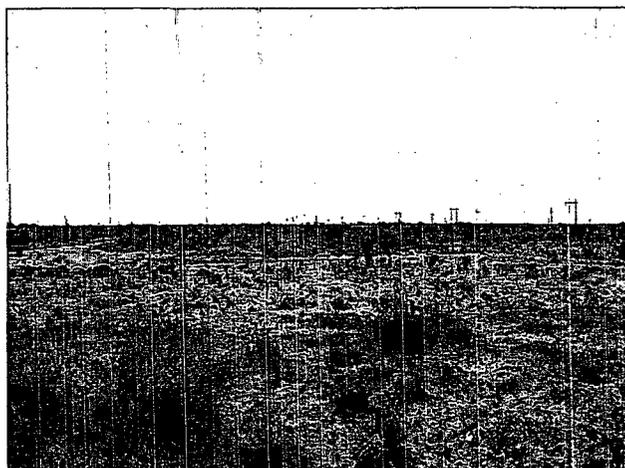
**Appendix C**

**Photographs**

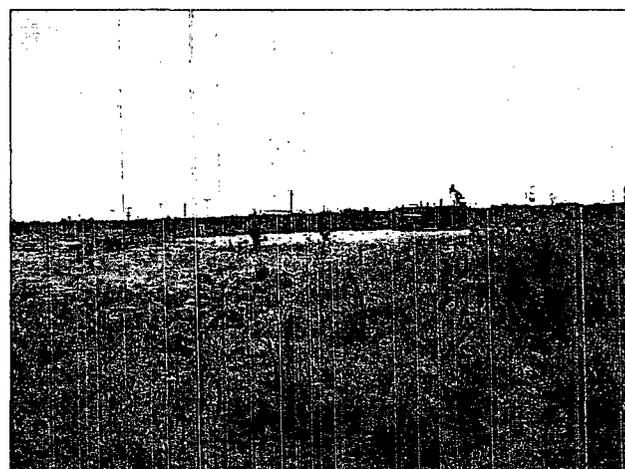
EMSU # 187  
NW/4, NW/4, SECTION 5, T-21-S, R-36-E  
LEA COUNTY, NEW MEXICO



1. EMSU # 187 - looking north

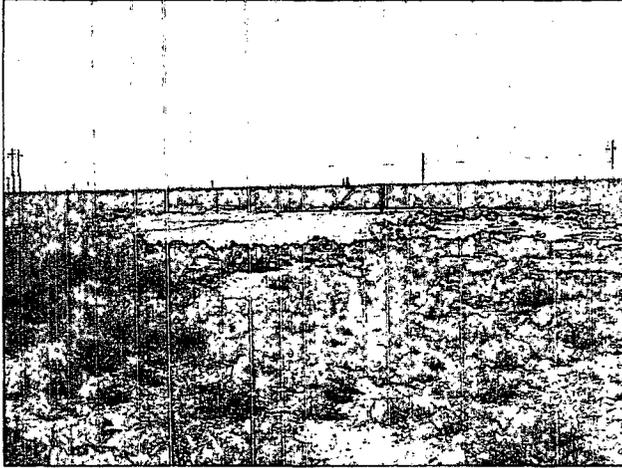


2. EMSU # 187 - looking south

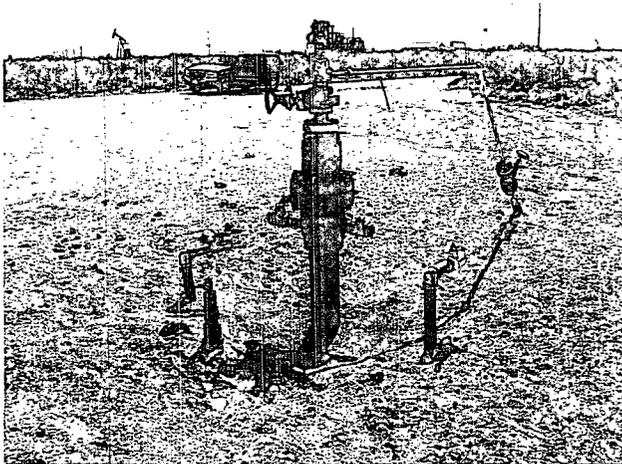


3. EMSU # 187 - looking east

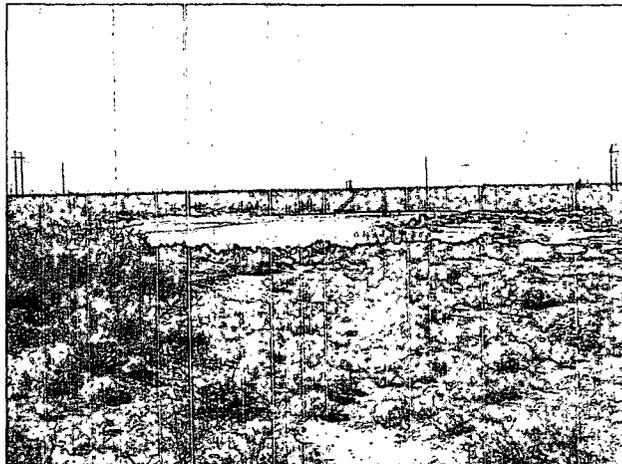
EMSU # 187  
NW/4, NW/4, SECTION 5, T-21-S, R-36-E  
LEA COUNTY, NEW MEXICO



4. EMSU # 187 - looking west



5. EMSU # 187 - wellhead



6. EMSU # 187 - looking west from  
BH-11

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company ChevronTexaco	Contact Danny Lovell
Address 2401 Ave "O" Eunice NM 88221	Telephone No. 505-394-1242
Facility Name EMSU #187	Facility Type WIW
Surface Owner Berta Tibbis	Mineral Owner
	Lease No.

**LOCATION OF RELEASE**

AP# 30025045150000

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	5	21S	36E	654	NORTH	660	WEST	LEA

Latitude N32deg-31.225 Longitude W103deg-17.621

**NATURE OF RELEASE**

Type of Release PRODUCED WATER	Volume of Release 180BBLs	Volume Recovered 160BBLs
Source of Release WATER INJECTION LINE	Date and Hour of Occurrence 8/2/04 6:00am-5:00 pm	Date and Hour of Discovery 8/2/04-5:00 P.M.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? SYLVIA DICKEY	
By Whom? DANNY LOVELL	Date and Hour 10:00 A.M. 8/3/04	
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.\*

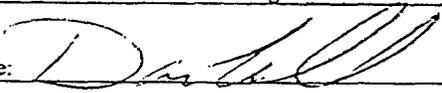
LATERAL LINE GOING TO WELL IS 2" FIBERGLASS AND IS CONNECTED TO WELLHEAD WITH 1" STAINLESS STEEL TUBING. TRACKS AROUND WELLHEAD INDICATED THAT A COW RUBBED AGAINST 1" SS CAUSING IT TO PULL OUT OF 2" FIBERGLASS COUPLING. WELL WAS SHUT-IN AND FLUID VACUUMED UP THAT EVENING.

Describe Area Affected and Cleanup Action Taken.\*

MAJORITY OF FLUID WAS CONTAINED ON WELL PAD WITH A 120'X3' STRIP GOING INTO PASTURE. STAINED SOIL WAS SCRAPED UP AND HAULED TO RHINO LAND FARM. DEPTH TO GROUNDWATER 180'. PER RE-SUBMIT NOTICE CHEVRONTXACO WILL REMOVE CONTAMINATED SOIL FROM RHINO AND HAULED TO SUNDANCE DISPOSAL BY 10/30/04. VERTICAL EXTENT OF CONTAMINATED AREA WAS NOT REQUESTED WHEN SPILL WAS CALLED IN. XTO PURCHASED PROPERTY FROM CHEVRON TEXACO 8/16/04. A COPY OF RE-SUBMIT NOTICE WAS GIVEN TO GUY HACKUS WITH XTO 10/27/04 WHO WILL FURNISH OTHER CLEAN UP REQUIREMENTS REQUESTED.

NOTE- LATE RESPONSE WAS DUE TO NOTICE JUST BEING RECEIVED RECENTLY.

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:   
Printed Name: DANNY LOVELL

**OIL CONSERVATION DIVISION**  
Approved by District Supervisor:

application - pPAC0627125515

RP# 1043