

# CLOSURE REPORT

## LOVINGTON SAN ANDRES UNIT #40

NMOCD 1RP #1228

EPI REF: 200068

UL-H (SE¼ OF THE NE¼) OF SECTION 1, T17S, R36E

~6 MILES SOUTHEAST OF LOVINGTON

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 51' 57.45"

LONGITUDE: W 103° 18' 05.18"

**MARCH 2007**

***PREPARED BY:***

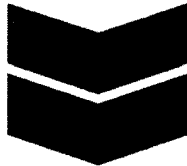
ENVIRONMENTAL PLUS, INC.

2100 AVENUE O

EUNICE, NEW MEXICO 88231

***PREPARED FOR:***

**Chevron**



*RP# 1228*

*incident - NPAC0535547966*  
*application - NPAC0713552782*



**Distribution List**

**Chevron USA – Lovington San Andres Unit #40**

**NMOCD 1RP #1228**

**EPI Ref. #200068**

<b>Name</b>	<b>Title</b>	<b>Company or Agency</b>	<b>Mailing Address</b>	<b>e-mail</b>
Larry Johnson	Environmental Engineer	NMOCD – Hobbs	1625 N.French Drive Hobbs, NM 88240	larry.johnson@state.nm.us
Larry Williams	HES Champion	Chevron North America Exploration and Production Company	P.O. Box 1949 Eunice, NM 88231	lcwl@chevron.com
Pat Wise	City Manager	City of Lovington	P.O. Box 1268 Lovington, NM 88260	pwise@lovington.nm.org
File	- -	Environmental Plus, Inc.	P.O. Box 1558 Eunice, NM 88231	dduncan@envplus.net



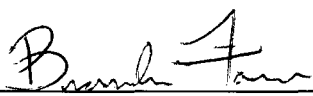
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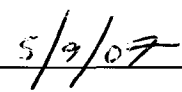
## STANDARD OF CARE

### Site Closure Report Lovington San Andres Unit #40 NMOCD 1RP #1228 EPI Ref. #200068

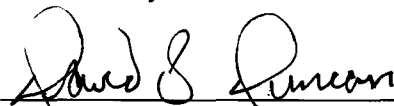
The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills and Releases* (August 13, 1993), the NMOCD *Unlined Surface Impoundment Closure Guidelines* (February, 1993) and Environmental Plus, Inc. (EPI) *Standard Operating Procedures and Quality Assurance/Quality Control Plan*. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were derived using currently accepted geologic, hydro-geologic and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered professional with a background in engineering, environmental and/or natural sciences.

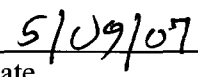
Prepared by:

  
\_\_\_\_\_  
Brandon Farrar  
Environmental Consultant

  
\_\_\_\_\_  
Date

Reviewed by:

  
\_\_\_\_\_  
David P. Duncan  
Civil Engineer

  
\_\_\_\_\_  
Date



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Appendix III: Soil Boring Logs  
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    Final NMOCD Form C-141



## 1.0 PROJECT SYNOPSIS

### *Site Specific:*

- ◆ **Company Name:** Chevron USA, Inc.
- ◆ **Facility Name:** Lovington San Andres Unit #40
- ◆ **Project Reference:** NMOCD Ref: 1RP #1228; EPI Ref: #200068
- ◆ **Company Contacts:** Larry Williams
- ◆ **Site Location:** WGS84 N32° 51' 57.45"; W103° 18' 05.18"
- ◆ **Legal Description:** Unit Letter-H (SE¼ of the NE¼), Section 1, T17S, R36E
- ◆ **General Description:** Approximately 6-miles southeast of Lovington, New Mexico
- ◆ **Elevation:** 3,820-ft amsl
- ◆ **Land Ownership:** City of Lovington, New Mexico
- ◆ **EPI Personnel:** Project Consultant –Jason Stegemoller

### *Release Specific:*

- ◆ **Product Released:** Produced water
- ◆ **Volume Released:** ~20-bbls      **Volume Recovered:** None
- ◆ **Time of Occurrence:** 12/11/05 @ 10:00AM      **Time of Discovery:** 12/11/05 @ 11:30 AM
- ◆ **Release Source:** Polypropylene flow line developed a leak
- ◆ **Initial Surface Area Affected:** ~ 5,100-ft<sup>2</sup>

### *Remediation Specific:*

- ◆ **Final Vertical extent of contamination:** Unknown
- ◆ **Depth to Ground Water:** ~ 56-ft bgs
- ◆ **Water wells within 1,000-ft:** None
- ◆ **Private domestic water sources within 200-ft:** None
- ◆ **Surface water bodies within 1,000-ft:** None
- ◆ **NMOCD Site Ranking Index:** 10 points
- ◆ **Remedial goals for Soil:** TPH – 1,000 mg/Kg; BTEX – 50 mg/Kg; Benzene – 10 mg/Kg; Chloride residuals may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 mg/L.
- ◆ **RCRA Waste Classification:** Exempt
- ◆ **Remediation Option Selected:** a) Excavation and disposal of impacted soil were completed by an independent contractor; b) EPI advanced three (3) soil borings within the perimeter of the release area on 2/08/06; c) upon receipt of Soil Boring Soil Sample Laboratory Analytical Data confirming soil impacted above NMOCD remedial threshold goals were excavated, EPI backfilled the excavation with approximately 160 yds<sup>3</sup> of clean top soil; d) entire disturbed area was contoured for natural drainage; and e) area will be seeded with a blend preferred by the City of Lovington, NM.
- ◆ **Disposal Facility:** Unknown (excavation completed by independent contractor)
- ◆ **Volume disposed:** Unknown (excavation completed by independent contractor)
- ◆ **Project Completion Date:** March 8, 2006



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## 2.0 **SITE AND RELEASE INFORMATION**

**2.1** *Describe the land use and pertinent geographic features within 1,000 feet of the site.*  
Land surrounding the area is rangeland and utilized for livestock grazing as well as oilfield operations.

**2.2** *Identify and describe the source or suspected source(s) of the release.*  
Polypropylene flow line developed a leak

**2.3** *What is the volume of the release? (if known):* 20 *barrels of:* Produced water

**2.4** *What is the volume recovered? (if any):* 0 *barrels*

**2.5** *When did the release occur? (if known):* 12/11/05

**2.6** ***Geological Description***

*The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche that was encountered between 5' and 10' bgs."*

**2.7** ***Ecological Description***

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of sandy soil covered with short semi-arid grasses, interspersed with Honey Mesquite and forbs. Mammals represented include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, amphibians and birds are numerous and typical of the area. A survey of Listed, Threatened or Endangered species was not conducted.

**2.8** ***Area Groundwater***

The unconfined groundwater aquifer at this site is projected to be ~56 feet (ft) bgs based on average water depth data obtained from the New Mexico State Engineers Office and United States Geological Survey data base (reference *Table 1*).

**2.9** ***Area Water Wells***

No water wells exist within a 1,000-foot radius of the site (reference *Figure 2*).

**2.10** ***Area Surface Water Features***

No surface water features exist within a 1,000-foot radius of the site (reference *Figure 2*).



### 3.0 NMOCD SITE RANKING

Contaminant delineation and remedial work done at this site indicate chemical parameters of the soil and physical parameters of the groundwater were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- ♦ *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*
- ♦ *Unlined Surface Impoundment Closure Guidelines (February, 1993)*
- ♦ *Pit and Below-Grade Tank Guidelines (November, 2004)*

Acceptable thresholds for contaminants/constituents of concern (CoC) were determined based on the NMOCD Ranking Criteria as follows:

- ♦ *Depth to Groundwater ( i.e., distance from the lower most acceptable concentration to groundwater);*
- ♦ *Wellhead Protection Area (i.e., distance from fresh water supply wells);*
- ♦ *Distance to Surface Water Body (i.e., horizontal distance to all down gradient surface water bodies).*

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is ten (10) points with the soil remedial goals highlighted in the Site Ranking table presented below:

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water	
Depth to GW <50 feet: 20 points	If <1,000' from water source, or; <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points	
Depth to GW 50 to 99 feet: 10 points		200-1,000 horizontal feet: 10 points	
Depth to GW >100 feet: 0 points	If >1,000' from water source, or; >200' from private domestic water source: 0 points	>1,000 horizontal feet: 0 points	
Site Rank (1+2+3) = 10 + 0 + 0 = 10 points			
Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Ranking Score	20 or >	10	0
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm

<sup>1</sup> A field soil vapor headspace measurement of 100 ppm can be substituted in lieu of laboratory analyses for benzene and BTEX.



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**4.0 EXCAVATED SOIL INFORMATION**

**4.1 Was soil excavated for off-site treatment or disposal?**    ☒ **Yes**    ☐ **No**

**Date excavated:** Unknown (excavation completed by an independent contractor)

**Total volume removed:** Unknown (excavation completed by an independent contractor)

**4.2 Indicated soil treatment type:**

<input type="checkbox"/>	<b>Disposal</b>
<input type="checkbox"/>	<b>Land Treatment</b>
<input type="checkbox"/>	<b>Composting/Biopiling</b>
<input checked="" type="checkbox"/>	<b>Other (Unknown)</b>

**Name and location of treatment/disposal facility:**

Unknown (excavation completed by an independent contractor)





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## 5.0 **SAMPLING INFORMATION**

### 5.1 ***Briefly describe the field screening methods used to distinguish contaminated from uncontaminated soil.***

Organic Vapor Concentrations – A portion of each soil sample was inserted into a self-sealing polyethylene bag to allow volatilization of organic vapors. After the samples equilibrated to ~70° F, they were analyzed for organic vapors utilizing a MiniRae® Photo-ionization Detector (PID) equipped with a 10.6 electron volt (eV) lamp and calibrated for benzene response.

Chloride Concentrations – A La Motte Chloride Test Kit (titration method) was utilized for field chloride concentration analyses.

### 5.2 ***Briefly describe the soil analytical sampling and handling procedures used.***

Soil borings were advanced utilizing a truck-mounted auger with a hollow stem drill to collect soil samples. Soil samples were collected at 2-ft bgs, 5-ft bgs and at 5-foot intervals thereafter to TD of each respective soil boring.

Upon collection of each soil sample, a portion was immediately placed in a laboratory provided container, labeled and set on ice for transport to an independent laboratory for quantification of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and total xylenes (BTEX) and chloride concentrations.

### 5.3 ***Discuss sample locations and provide rationale for their locations.***

On February 8, 2006 three (3) soil borings (SB-1, SB-2 and SB-3) were advanced to depths ranging from 6-ft bgs to 11-ft bgs within the perimeter of the release to delineate vertical extent of impacted soil (reference *Table 2* and *Appendix III, Soil Boring Logs*). Soil boring locations were chosen to provide the best representative examples of contaminated soil within the release area (reference *Figure 4*).



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## 6.0 ANALYTICAL RESULTS

### 6.1 *Describe the vertical and horizontal extent and magnitude of soil contamination.*

Laboratory analyses of the soil samples collected from SB-1 thru SB-3 indicated benzene, BTEX and TPH concentrations were ND at or above laboratory MDL. Chloride concentrations ranged from 9.9 mg/Kg (SB-2 @ 10-11-feet bgs) to 127 mg/Kg (SB-1 @ 10-11-feet bgs). All soil samples were below NMOCD remedial threshold goals of 250 mg/Kg for chloride concentrations (reference *Table 2*).

### 6.2 *Is surface soil contamination present at the site (i.e., soil in the uppermost two feet that is visibly stained, contaminated at greater than 10 ppm (PID) or hydrocarbon saturated)?*

☐ *yes*      ☒ *no*

*If yes, attach a site map identifying extent(s) of surface soil contamination.*



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## 7.0 **DISCUSSION**

### 7.1 ***Discuss the risks associated with the remaining soil contamination:***

Benzene, TPH, BTEX and chloride constituent concentrations were ND at or above laboratory MDL. Based on depth to groundwater (~56 ft bgs), chloride contaminants remaining in the soil may not be capable of impacting groundwater above NMWQCC groundwater standards of 250 mg/L.

### 7.2 ***Discuss the risks associated with the impacted groundwater:***

Groundwater is not impacted.

### 7.3 ***Discuss other concerns not mentioned above:***

Not applicable



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## 8.0 CONCLUSIONS AND RECOMMENDATIONS

- 8.1 *Recommendation for the site:*
- ☒ *Site Closure*  
☐ *Additional Groundwater Monitoring*  
☐ *Corrective Action*

- 8.2 *Base the recommendation above on Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993). Describe below how you applied the policy to support your recommendation. If closure is recommended, please summarize significant site investigative events and describe how site specific risk issues have been adequately addressed or minimized to acceptable low risk levels.*

Excavation and disposal of impacted soil was completed by an independent contractor. On February 8, 2006 EPI advanced three (3) soil borings within the perimeter of the release area to depths ranging from 6-ft bgs to 11-ft bgs to delineate vertical extent of impacted soil. Upon receipt of Soil Boring Soil Sample Laboratory Analytical Data confirming soil impacted above NMOCD remedial threshold goals were excavated, EPI backfilled the excavation with approximately 160 yds<sup>3</sup> of clean top-soil. Entire disturbed area was contoured for natural drainage and will be seeded with a blend preferred by the City of Lovington, New Mexico.

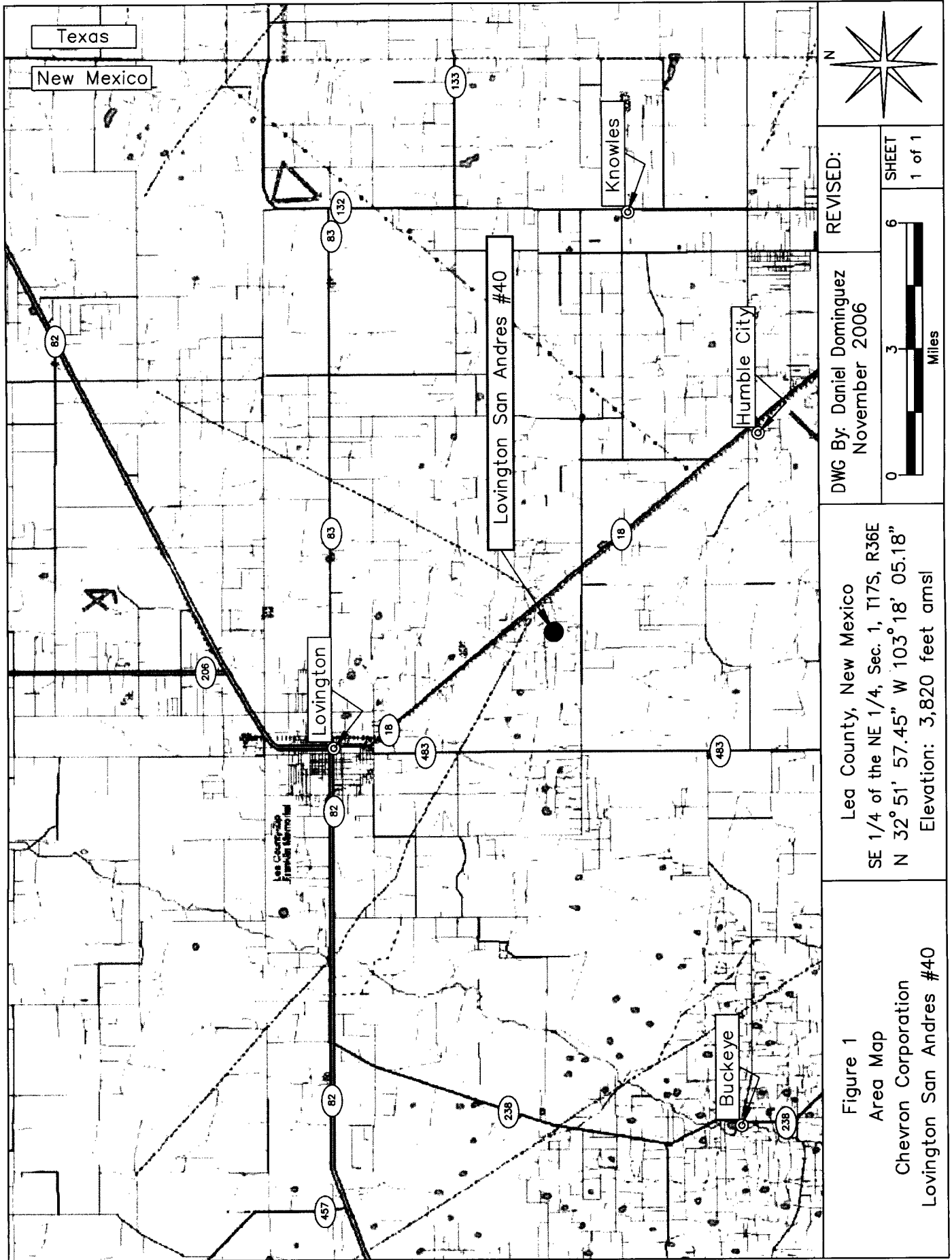
- 8.3 *If additional groundwater monitoring is recommended, indicate the proposed monitoring schedule and frequency. Conduct quarterly monitoring until the NMOCD responds to this report.*

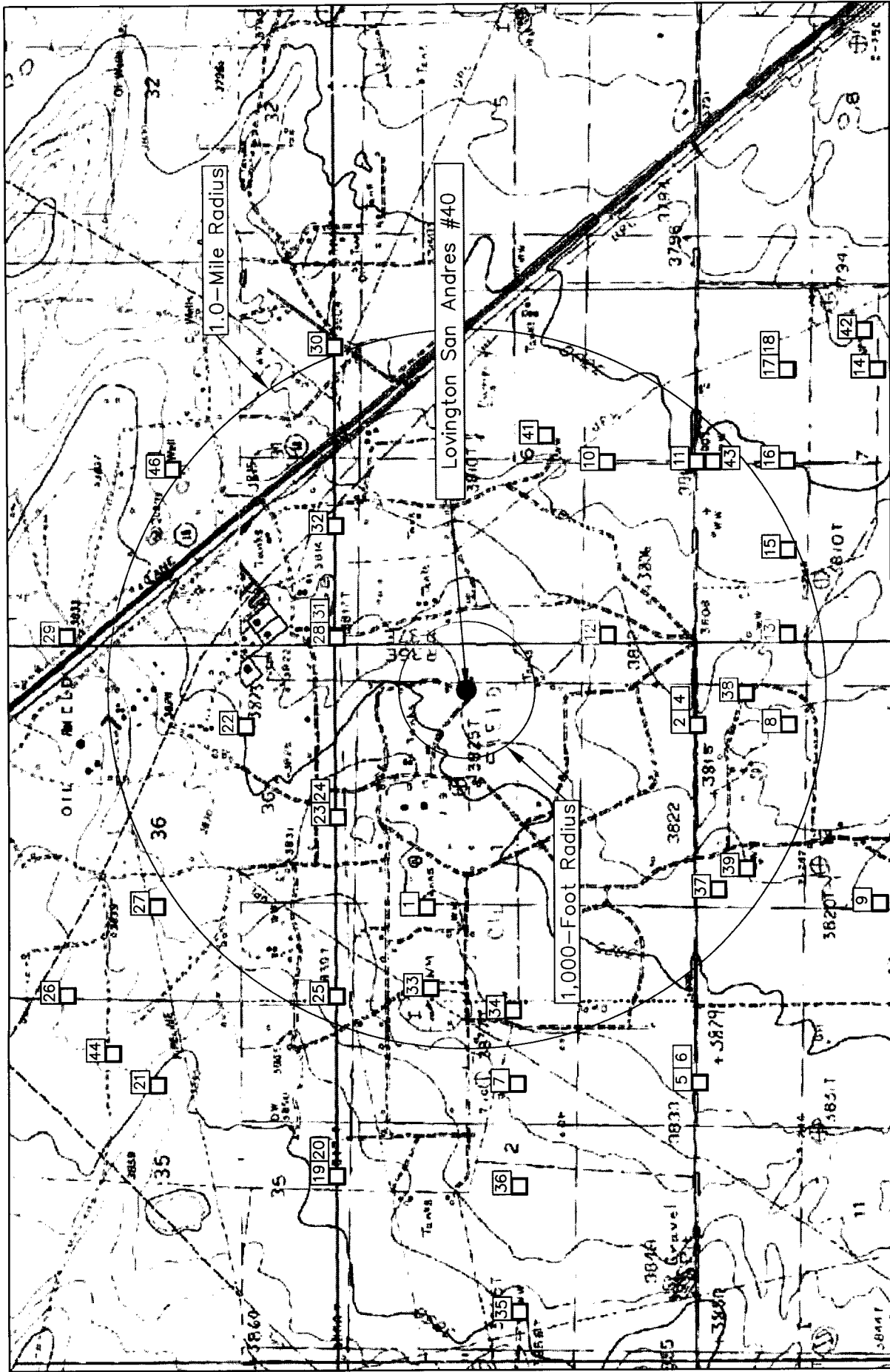
Not Applicable

- 8.4 *If corrective action is recommended, provide a conceptual approach.*

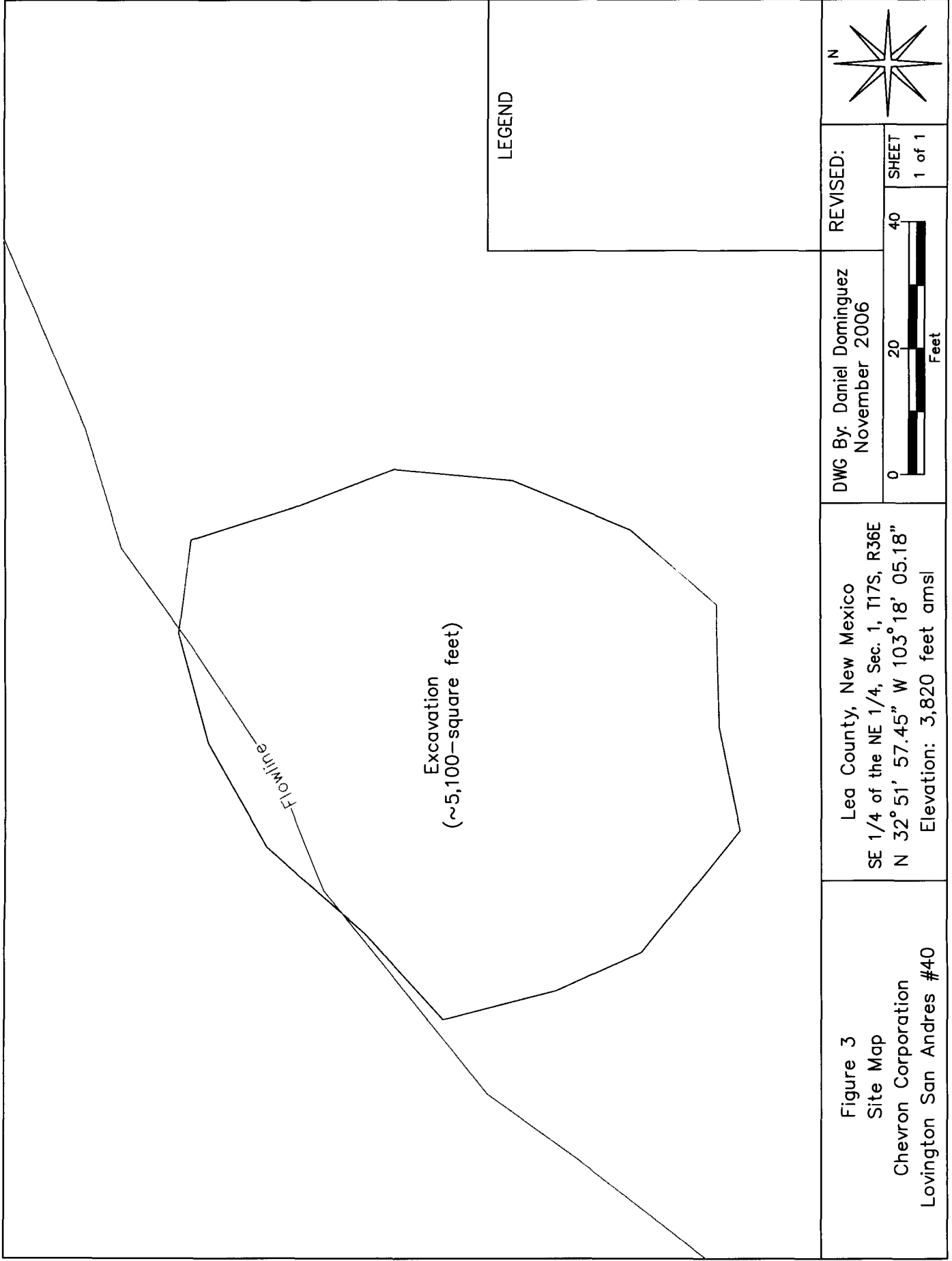
Not applicable

## **FIGURES**





<p>Figure 2</p> <p>Site Location Map</p> <p>Chevron Corporation</p> <p>Lovington San Andres #40</p>	<p>Lea County, New Mexico</p> <p>SE 1/4 of the NE 1/4, Sec. 1, T17S, R36E</p> <p>N 32° 51' 57.45" W 103° 18' 05.18"</p> <p>Elevation: 3,820 feet amsl</p>	<p>DWG By: Daniel Dominguez</p> <p>November 2006</p>	<p>REVISED:</p>
			<p>0 2,000 4,000 Feet</p> <p>SHEET 1 of 1</p>



LEGEND

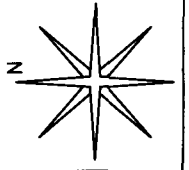
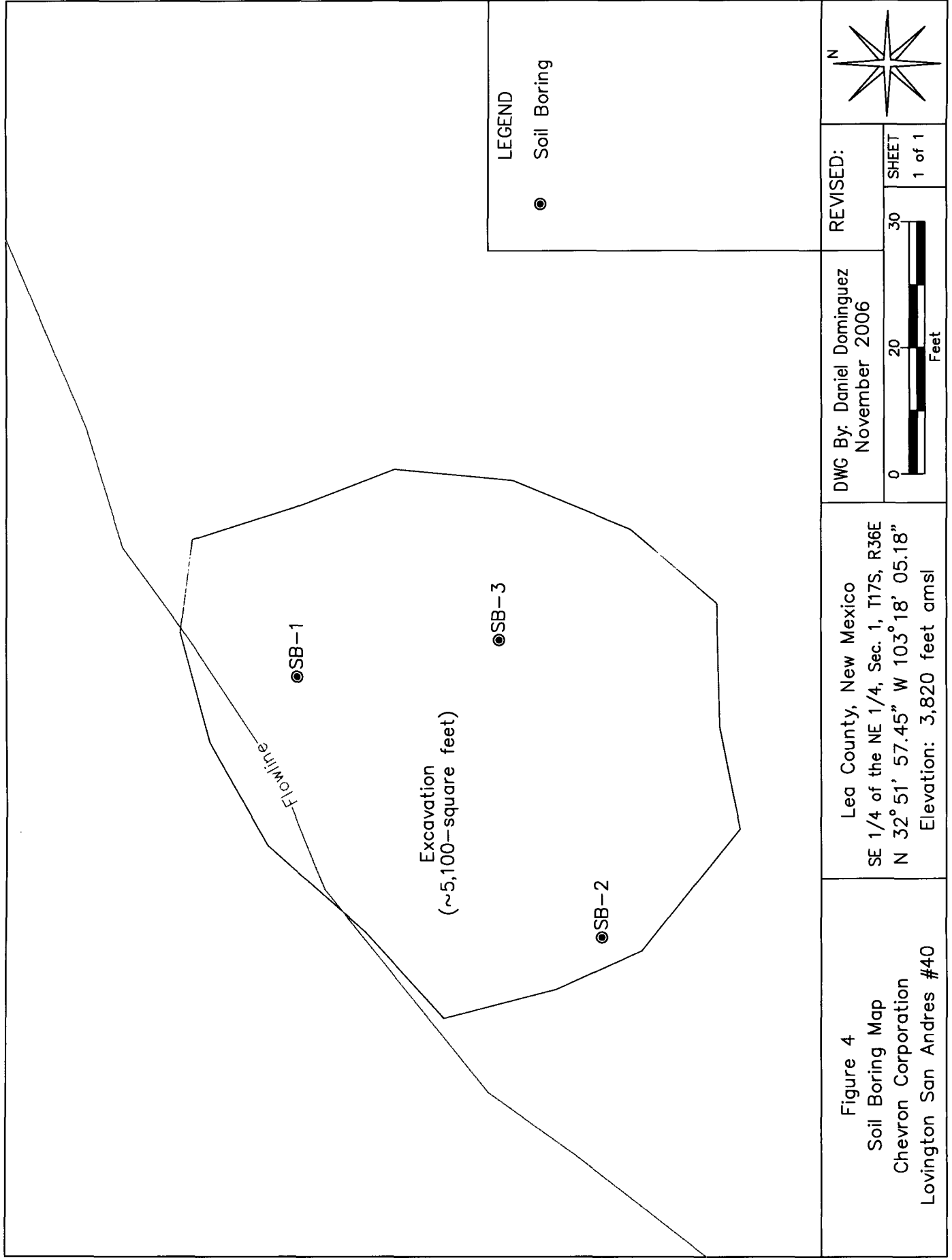


Figure 3 Site Map  Chevron Corporation Lovington San Andres #40	Lea County, New Mexico  SE 1/4 of the NE 1/4, Sec. 1, T17S, R36E  N 32° 51' 57.45" W 103° 18' 05.18"  Elevation: 3,820 feet amsl	DWG By: Daniel Dominguez November 2006	REVISED:
		0 20 40 Feet	SHEET 1 of 1





## **TABLES**

TABLE 1

## WELL INFORMATION REPORT\*

Chevron USA - Lovington San Andres #40 - NMOCD 1RP #1228; EPI Ref: 200068

Ref. #	Well Number	Diversion <sup>A</sup>	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation <sup>B</sup>	Depth to Water
1	L 01584	3	LEE DRILLING CO.	PRO	17S	36E	01 1 2	N32° 52' 3.36"	W103° 18' 42.66"	29-Sep-52	3,830	48
2	L 02331	3	J.P. (BUM) GIBBONS INC.	PRO	17S	36E	01 4 4	N32° 51' 23.99"	W103° 18' 11.48"	02-Sep-53	3,810	48
4	L 10633 S3				17S	36E	01 4 4 4	N32° 51' 23.99"	W103° 18' 11.48"	10-May-01	3,810	80
5	L 02413	3	JACK CLAYTON	DOM	17S	36E	02 4 4	N32° 51' 24.10"	W103° 19' 13.63"	20-Nov-53	3,830	90
6	L 02426	3	THE OHIO OIL CO.	PRO	17S	36E	02 4 4	N32° 51' 24.10"	W103° 19' 13.63"	03-Dec-53	3,830	48
7	L 03676	3	JACK CAYTON	DOM	17S	36E	02 2 4	N32° 51' 50.31"	W103° 19' 13.71"	17-Sep-57	3,834	68
8	L 02205	3	HOWARD DRILLING CO. & HOLMES	PRO	17S	36E	12 2 2	N32° 51' 10.90"	W103° 18' 11.46"	01-May-53	3,811	45
9	L 06395 (E)	0	NCVAY DRILLING COMPANY	PRO	17S	36E	12 1 4	N32° 50' 57.89"	W103° 18' 42.48"	19-Oct-68	3,822	47
10	L 00449	442.8	J. LYNN WALKER	IRR	17S	37E	06 4 2 1	N32° 51' 37.00"	W103° 17' 25.99"	20-May-05	3,804	101
11	L 00449 EXPLORE				17S	37E	06 4	N32° 51' 23.92"	W103° 17' 25.96"	11-May-05	3,800	118
12	L 02474	3	LEE DRILLING CO.	PRO	17S	37E	06 3 1	N32° 51' 37.04"	W103° 17' 55.96"	14-Jan-54	3,813	40
13	L 01603 APPRO	3	SIMMONS DRILLING CO.	PRO	17S	37E	07 1 1	N32° 51' 10.87"	W103° 17' 55.91"	25-Oct-52	3,807	39
14	L 04197 APPRO EXP	3	E. D. JR. SHIPP	STK	17S	37E	07 2 4	N32° 50' 57.74"	W103° 17' 10.38"	07-Jul-59	3,796	45
15	L 04359 B	120	CHARLES WORDEN	DAI	17S	37E	07 1 2 1	N32° 51' 10.86"	W103° 17' 41.40"	10-Jan-04	3,804	75
16	L 04712	3	ELBERT D. SHIPP	DOM	17S	37E	07 2 1 2	N32° 51' 10.84"	W103° 17' 25.89"	11-Sep-61	3,800	75
17	L 10021	3	E. D. ASTON	DOM	17S	37E	07 2 2 2	N32° 51' 10.81"	W103° 17' 10.42"	19-Jul-88	3,797	70
18	L 11056	3	KENNETH GOFF	DOM	17S	37E	07 2 2 2	N32° 51' 10.81"	W103° 17' 10.42"	09-May-00	3,797	62
19	L 01466 APPRO	3	M. J. DRILLING CO. DELANEY	PRO	16S	36E	35 4 3	N32° 52' 16.43"	W103° 19' 29.35"	09-Jun-52	3,849	47
20	L 02987	3	ARROW DRILLING CO.	PRO	16S	36E	35 4 3	N32° 52' 16.43"	W103° 19' 29.35"	20-Sep-55	3,849	40
21	L 03173	3	MAKIN DRILLING COMPANY	PRO	16S	36E	35 2 4	N32° 52' 42.40"	W103° 19' 13.62"	15-Mar-56	3,850	55
22	L 01350 APPRO	3	PARKER DRILLING CO.	PRO	16S	36E	36 4 2	N32° 52' 29.34"	W103° 18' 11.51"	12-Jan-52	3,825	55
23	L 01371 APPRO	3	SHARP DRILLING CO.	PRO	16S	36E	36 4 3 4	N32° 52' 16.34"	W103° 18' 27.14"	23-Feb-52	3,832	45
24	L 01438 APPRO	0	SKELLY OIL CO.	PRO	16S	36E	36 4 3	N32° 52' 16.34"	W103° 18' 27.14"	08-May-52	3,832	45
25	L 01557 APPRO	3	WARREN BRADSHAW	PRO	16S	36E	36 3 3 4	N32° 52' 16.39"	W103° 18' 58.25"	26-Aug-52	3,839	40
26	L 04058 S-24				16S	36E	36 1 1 2	N32° 52' 55.45"	W103° 18' 58.00"	07-Apr-00	3,845	88
27	L 04058 S-25				16S	36E	36 1 4 2	N32° 52' 42.41"	W103° 18' 42.53"	13-Apr-00	3,835	88

TABLE 1

## WELL INFORMATION REPORT\*

Chevron USA - Lovington San Andres #40 - NMOC D 1RP #1228; EPI Ref: 200068

Ref. #	Well Number	Diversion <sup>A</sup>	Owner	Use	Twp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation <sup>B</sup>	Depth to Water
28	L 01220 APPRO	3	J.R. SHARP DRILLING CO.	PRO	16S	37E	31 3 3	N32° 52' 16.29"	W103° 17' 56.04"	18-Sep-51	3,815	55
29	L 02041	3	THE TEXAS COMPANY	PRO	16S	37E	31 1 1	N32° 52' 55.27"	W103° 17' 55.80"	04-Mar-53	3,833	50
30	L 02078	3	SHARP DRILLING CO.	PRO	16S	37E	31 4 4	N32° 52' 16.32"	W103° 17' 5.86"	25-Mar-53	3,804	50
31	L 02561	3	SKELLY OIL CO.	DOM	16S	37E	31 3 3 3	N32° 52' 16.29"	W103° 17' 56.04"	03-Mar-54	3,815	50
32	L 10652	3	BOC GASES	SAN	16S	37E	31 3 4 4	N32° 52' 16.30"	W103° 17' 36.89"	10-Apr-97	3,812	72
33	USGS #1				17S	36E	1 1 1 2			01-May-92		83
34	USGS #2				17S	36E	2 2 4 4			14-Jan-86		62.96
35	USGS #3				17S	36E	2 3 1 2			13-Jan-81		53.19
36	USGS #4				17S	36E	2 4 1 1			19-Jan-96		57.77
37	USGS #5				17S	36E	12 1 2 1			27-Feb-76		44.1
38	USGS #6				17S	36E	12 2 2 3			19-Jan-96		55.32
39	USGS #7				17S	36E	12 1 2 3			14-Jan-86		50.87
41	USGS #9				17S	37E	6 4 1 1			31-Jan-91		61.64
42	USGS #10				17S	37E	7 2 4 3			24-Jan-91		53.44
43	USGS #11				17S	37E	7 2 1 1			07-Jan-81		51.09
44	USGS #12				16S	36E	35 2 4 1			01-Feb-96		75.9
46	USGS #14				16S	37E	31 3 2 2			17-Mar-76		61.93
3	L 10633	1643.4	KENNETH HAN GOLF	IRR	17S	36E	01 4 2 2	N32° 49' 39.48"	W103° 18' 26.91"	19-Apr-01	3,810	80
40	USGS #8				17S	36E	12 3 2 3			14-Jan-86		45.93
45	USGS #13				16S	37E	31 1 1 3			17-Mar-76		70.94

\* = Data obtained from the New Mexico Office of the State Engineer Website ([http://iwaters.ose.state.nm.us:7001/iWATERS/wr\\_RegisServlet1](http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1)) and USGS Database.

Shaded well information indicates well location not shown on Figure 2

<sup>A</sup> = in acre feet per annum<sup>B</sup> = Interpolated from USGS Topographical Map

PRO = Production

IRR = Irrigation

DOM = Domestic one household

STK = Livestock watering

DAI = Dairy operation

(quarters are 1=NW, 2=NE, 3=SW, 4=SE)

(quarters are biggest to smallest - X Y are in Feet - UTM are in Meters)

**TABLE 2**  
**Summary of Soil Boring Field Analyses and Laboratory Analytical Data**  
**Chevron USA**

**Lovington San Andres #40 - NMOCD IRP #1228; EPI Ref: 200068**

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTX (mg/Kg)	Carbon Ranges C6-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	Total Hydrocarbons C6-C35 (mg/Kg)	Chloride (mg/Kg)
SB-1	2-3	In situ	08-Feb-06	0.5	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	42.2
	5-6	In situ	08-Feb-06	0.4	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	13.3
	10-11	In situ	08-Feb-06	0.4	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	127
SB-2	2-3	In situ	08-Feb-06	0.3	240	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	126
	5-6	In situ	08-Feb-06	0.1	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	30.4
	10-11	In situ	08-Feb-06	0.1	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	9.9
SB-3	2-3	In situ	08-Feb-06	0.1	200	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	44.5
	5-6	In situ	08-Feb-06	0.1	160	<0.0250	<0.0250	<0.0250	<0.050	<0.125	<10.0	<10.0	<10.0	<30.0	37.5
NMOCD Remedial Threshold Goals				100		10				50				5,000	250 <sup>1</sup>

**BOLD** values exceed NMOCD Remedial Threshold Goals

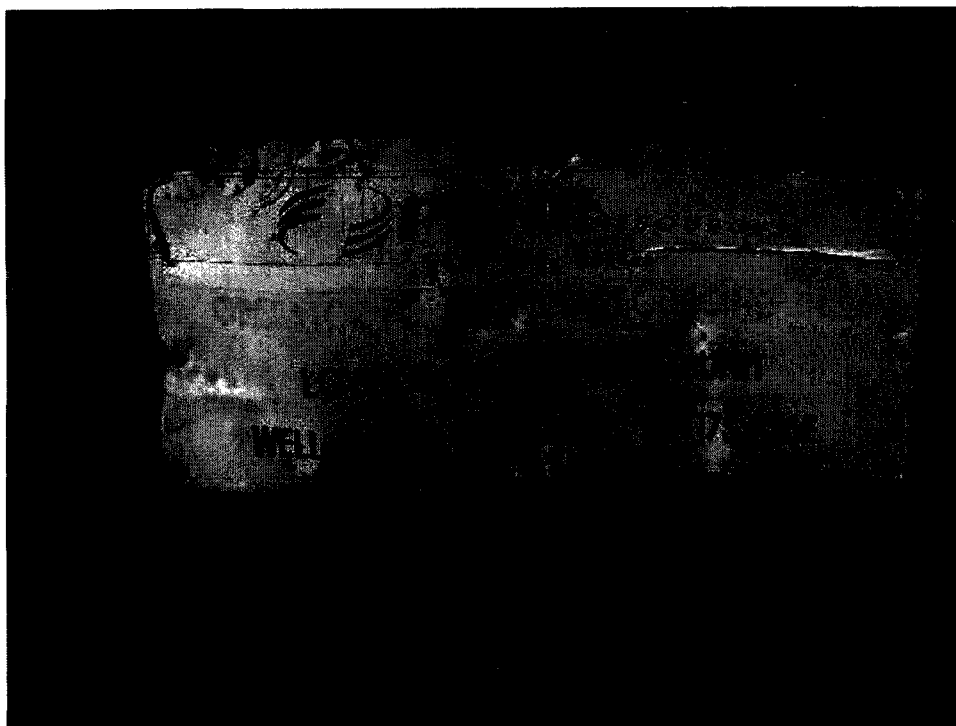
<sup>1</sup> = Chloride and Sulfate residuals may not be capable of impacting groundwater above NMWQC Groundwater Standards of 250 mg/Kg and 600 mg/Kg, respectively

-- = Not Analyzed; J = Analyte detected, but below Reporting Limit. Therefore, result is an estimated concentration (CPL, J-Flag)

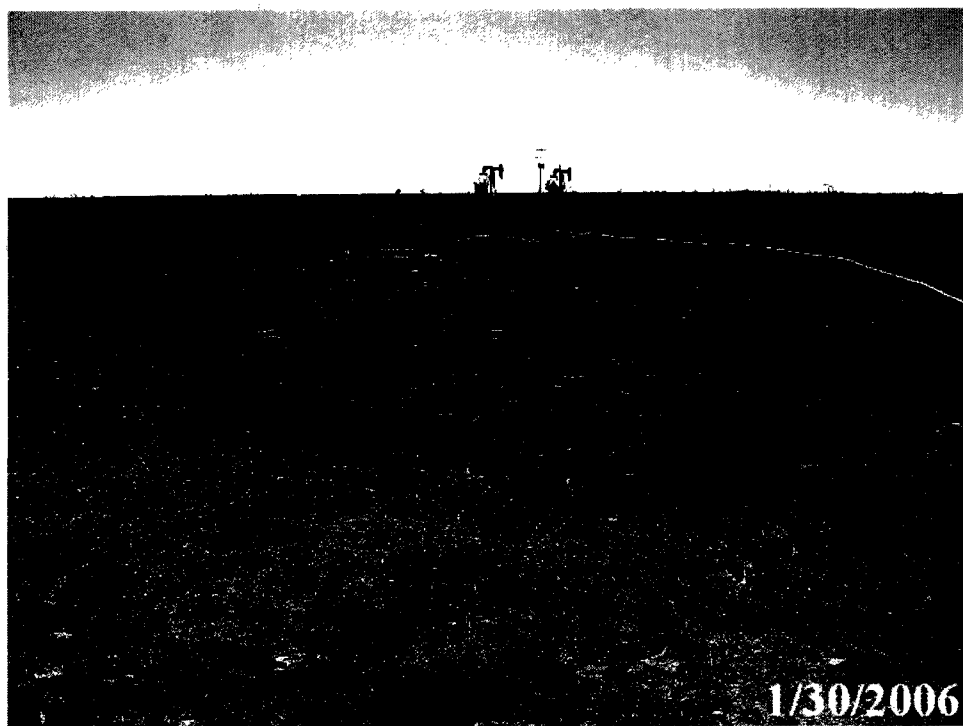
## **APPENDICES**

**APPENDIX I**

**PROJECT PHOTOGRAPHS**



Photograph #1 – Lease sign.



Photograph #2 – Looking northwesterly at release site.





Photograph #3 – Looking southerly at release site and advancement of Soil Borings.



Photograph #4 – Remediated site.



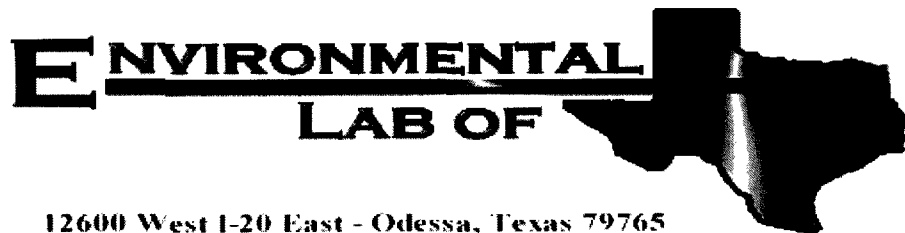
Photograph #5 – Remediated site.



Photograph #6 – Remediated site.

**APPENDIX II**

**LABORATORY ANALYTICAL REPORTS**  
**AND**  
**CHAIN-OF-CUSTODY FORM**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Iain Olness

Environmental Plus, Incorporated

P.O. Box 1558

Eunice, NM 88231

Project: Chevron USA/ Lov. San Andres Unit #40

Project Number: 200068

Location: UL-H, Sec. 01, T 17 S, R 36 E

Lab Order Number: 6B09012

Report Date: 02/21/06

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

**Reported:**  
02/21/06 15:34

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 2'-3'	6B09012-01	Soil	02/08/06 08:45	02/09/06 12:56
SB-1 5'-6'	6B09012-02	Soil	02/08/06 08:51	02/09/06 12:56
SB-1 10'-11'	6B09012-03	Soil	02/08/06 09:03	02/09/06 12:56
SB-2 2'-3'	6B09012-04	Soil	02/08/06 09:15	02/09/06 12:56
SB-2 5'-6'	6B09012-05	Soil	02/08/06 09:19	02/09/06 12:56
SB-2 10'-11'	6B09012-06	Soil	02/08/06 09:28	02/09/06 12:56
SB-3 2'-3'	6B09012-07	Soil	02/08/06 09:35	02/09/06 12:56
SB-3 5'-6'	6B09012-08	Soil	02/08/06 09:40	02/09/06 12:56

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 2'-3' (6B09012-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/16/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		75.2 %	70-130		"	"	"	"	
<b>SB-1 5'-6' (6B09012-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		83.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		104 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		74.0 %	70-130		"	"	"	"	
<b>SB-1 10'-11' (6B09012-03) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/16/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		98.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	

Environmental Lab of Texas

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Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 10'-11' (6B09012-03) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		99.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		75.0 %	70-130		"	"	"	"	
<b>SB-2 2'-3' (6B09012-04) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/16/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		97.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		71.8 %	70-130		"	"	"	"	
<b>SB-2 5'-6' (6B09012-05) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		85.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.0 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.0 %	70-130		"	"	"	"	

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Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

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

Analytic	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-2 10'-11' (6B09012-06) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.5 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		94.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		70.4 %	70-130		"	"	"	"	
<b>SB-3 2'-3' (6B09012-07) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61503	02/15/06	02/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		93.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		97.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		70.6 %	70-130		"	"	"	"	
<b>SB-3 5'-6' (6B09012-08) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EB61508	02/15/06	02/15/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		85.8 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.8 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	

Environmental Lab of Texas

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Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

**Reported:**  
02/21/06 15:34

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-3 5'-6' (6B09012-08) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EB61031	02/10/06	02/13/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		106 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		75.6 %	70-130		"	"	"	"	

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Fax: 505-394-2601

Reported:  
02/21/06 15:34

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 2'-3' (6B09012-01) Soil</b>									
Chloride	42.2	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.1	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	25.5	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-1 5'-6' (6B09012-02) Soil</b>									
Chloride	13.3	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.4	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	23.1	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-1 10'-11' (6B09012-03) Soil</b>									
Chloride	127	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.3	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	42.4	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-2 2'-3' (6B09012-04) Soil</b>									
Chloride	126	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	ND	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	41.0	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-2 5'-6' (6B09012-05) Soil</b>									
Chloride	30.4	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.3	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	17.6	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-2 10'-11' (6B09012-06) Soil</b>									
Chloride	9.94	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.5	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	18.5	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>SB-3 2'-3' (6B09012-07) Soil</b>									
Chloride	44.5	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
% Moisture	0.1	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
Sulfate	40.3	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	

Environmental Lab of Texas

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Page 6 of 14

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

**Reported:**  
02/21/06 15:34

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-3 5'-6' (6B09012-08) Soil</b>									
<b>Chloride</b>	<b>37.5</b>	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	
<b>% Moisture</b>	<b>0.1</b>	0.1	%	1	EB61305	02/10/06	02/13/06	% calculation	
<b>Sulfate</b>	<b>48.8</b>	5.00	mg/kg	10	EB62012	02/20/06	02/20/06	EPA 300.0	

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P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

**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 EB61031 - Solvent Extraction (GC)**

**Blank (EB61031-BLK1)**

Prepared: 02/10/06 Analyzed: 02/13/06

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 C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	47.1		mg/kg	50.0		94.2	70-130			
Surrogate: 1-Chlorooctadecane	35.2		"	50.0		70.4	70-130			

**LCS (EB61031-BS1)**

Prepared: 02/10/06 Analyzed: 02/13/06

Carbon Ranges C6-C12	465	10.0	mg/kg wet	500		93.0	75-125			
Carbon Ranges C12-C28	525	10.0	"	500		105	75-125			
Total Hydrocarbon C6-C35	990	10.0	"	1000		99.0	75-125			
Surrogate: 1-Chlorooctane	56.3		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	44.9		"	50.0		89.8	70-130			

**Calibration Check (EB61031-CCV1)**

Prepared: 02/10/06 Analyzed: 02/13/06

Carbon Ranges C6-C12	478		mg/kg	500		95.6	80-120			
Carbon Ranges C12-C28	563		"	500		113	80-120			
Total Hydrocarbon C6-C35	1040		"	1000		104	80-120			
Surrogate: 1-Chlorooctane	58.5		"	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	54.4		"	50.0		109	70-130			

**Matrix Spike (EB61031-MS1)**

Source: 6B09002-08

Prepared: 02/10/06 Analyzed: 02/13/06

Carbon Ranges C6-C12	578	10.0	mg/kg dry	569	ND	102	75-125			
Carbon Ranges C12-C28	631	10.0	"	569	ND	111	75-125			
Total Hydrocarbon C6-C35	1210	10.0	"	1140	ND	106	75-125			
Surrogate: 1-Chlorooctane	60.4		mg/kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	49.6		"	50.0		99.2	70-130			

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
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Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

**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 EB61031 - Solvent Extraction (GC)**

**Matrix Spike Dup (EB61031-MSD1)**

Source: 6B09002-08

Prepared: 02/10/06 Analyzed: 02/13/06

Carbon Ranges C6-C12	564	10.0	mg/kg dry	569	ND	99.1	75-125	2.45	20	
Carbon Ranges C12-C28	640	10.0	"	569	ND	112	75-125	1.42	20	
Total Hydrocarbon C6-C35	1200	10.0	"	1140	ND	105	75-125	0.830	20	
Surrogate: 1-Chlorooctane	59.5		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	48.1		"	50.0		96.2	70-130			

**Batch EB61503 - EPA 5030C (GC)**

**Blank (EB61503-BLK1)**

Prepared & Analyzed: 02/15/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	35.4		ug/kg	40.0		88.5	80-120			
Surrogate: 4-Bromofluorobenzene	34.9		"	40.0		87.2	80-120			

**LCS (EB61503-BS1)**

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	2.59	0.0250	mg/kg wet	2.50		104	80-120			
Toluene	2.77	0.0250	"	2.50		111	80-120			
Ethylbenzene	2.92	0.0250	"	2.50		117	80-120			
Xylene (p/m)	5.28	0.0250	"	5.00		106	80-120			
Xylene (o)	3.00	0.0250	"	2.50		120	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.6		ug/kg	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	33.9		"	40.0		84.8	80-120			

**Calibration Check (EB61503-CCV1)**

Prepared & Analyzed: 02/15/06

Benzene	106		ug/kg	100		106	80-120			
Toluene	110		"	100		110	80-120			
Ethylbenzene	102		"	100		102	80-120			
Xylene (p/m)	187		"	200		93.5	80-120			
Xylene (o)	99.8		"	100		99.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.9		"	40.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	33.9		"	40.0		84.8	80-120			

Environmental Lab of Texas

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Page 9 of 14

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

**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 EB61503 - EPA 5030C (GC)**

**Matrix Spike (EB61503-MS1)**

Source: 6B09002-04

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	2.93	0.0250	mg/kg dry	2.96	ND	99.0	80-120			
Toluene	3.46	0.0250	"	2.96	ND	117	80-120			
Ethylbenzene	3.55	0.0250	"	2.96	ND	120	80-120			
Xylene (p/m)	6.50	0.0250	"	5.92	ND	110	80-120			
Xylene (o)	3.55	0.0250	"	2.96	ND	120	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.2		ug/kg	40.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	37.8		"	40.0		94.5	80-120			

**Matrix Spike Dup (EB61503-MSD1)**

Source: 6B09002-04

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	3.04	0.0250	mg/kg dry	2.96	ND	103	80-120	3.96	20	
Toluene	3.23	0.0250	"	2.96	ND	109	80-120	7.08	20	
Ethylbenzene	3.32	0.0250	"	2.96	ND	112	80-120	6.90	20	
Xylene (p/m)	5.97	0.0250	"	5.92	ND	101	80-120	8.53	20	
Xylene (o)	3.54	0.0250	"	2.96	ND	120	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	38.4		ug/kg	40.0		96.0	80-120			
Surrogate: 4-Bromofluorobenzene	39.4		"	40.0		98.5	80-120			

**Batch EB61508 - EPA 5030C (GC)**

**Blank (EB61508-BLK1)**

Prepared & Analyzed: 02/15/06

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	39.1		ug/kg	40.0		97.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.0		"	40.0		80.0	80-120			

Environmental Lab of Texas

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Page 10 of 14

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

**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 EB61508 - EPA 5030C (GC)**

**LCS (EB61508-BS1)**

Prepared & Analyzed: 02/15/06

Benzene	2.49	0.0250	mg/kg wet	2.50		99.6	80-120			
Toluene	2.90	0.0250	"	2.50		116	80-120			
Ethylbenzene	2.99	0.0250	"	2.50		120	80-120			
Xylene (p/m)	5.34	0.0250	"	5.00		107	80-120			
Xylene (o)	2.99	0.0250	"	2.50		120	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.9		ug/kg	40.0		94.8	80-120			
Surrogate: 4-Bromofluorobenzene	35.1		"	40.0		87.8	80-120			

**Calibration Check (EB61508-CCV1)**

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	104		ug/kg	100		104	80-120			
Toluene	110		"	100		110	80-120			
Ethylbenzene	108		"	100		108	80-120			
Xylene (p/m)	193		"	200		96.5	80-120			
Xylene (o)	111		"	100		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.9		"	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	37.1		"	40.0		92.8	80-120			

**Matrix Spike (EB61508-MS1)**

Source: 6B09012-08

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	2.61	0.0250	mg/kg dry	2.50	ND	104	80-120			
Toluene	2.78	0.0250	"	2.50	ND	111	80-120			
Ethylbenzene	2.78	0.0250	"	2.50	ND	111	80-120			
Xylene (p/m)	4.94	0.0250	"	5.01	ND	98.6	80-120			
Xylene (o)	2.80	0.0250	"	2.50	ND	112	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.0		ug/kg	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			

**Matrix Spike Dup (EB61508-MSD1)**

Source: 6B09012-08

Prepared: 02/15/06 Analyzed: 02/16/06

Benzene	2.63	0.0250	mg/kg dry	2.50	ND	105	80-120	0.957	20	
Toluene	2.81	0.0250	"	2.50	ND	112	80-120	0.897	20	
Ethylbenzene	2.83	0.0250	"	2.50	ND	113	80-120	1.79	20	
Xylene (p/m)	5.05	0.0250	"	5.01	ND	101	80-120	2.40	20	
Xylene (o)	2.88	0.0250	"	2.50	ND	115	80-120	2.64	20	
Surrogate: a,a,a-Trifluorotoluene	42.1		ug/kg	40.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	39.5		"	40.0		98.8	80-120			

Environmental Lab of Texas

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Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

Reported:  
02/21/06 15:34

**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
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch EB61305 - General Preparation (Prep)**

**Blank (EB61305-BLK1)** Prepared: 02/10/06 Analyzed: 02/13/06

% Solids 100 %

**Duplicate (EB61305-DUP1)** Source: 6B09009-01 Prepared: 02/10/06 Analyzed: 02/13/06

% Solids 97.2 % 96.6 0.619 20

**Duplicate (EB61305-DUP2)** Source: 6B09016-06 Prepared: 02/10/06 Analyzed: 02/13/06

% Solids 90.4 % 94.9 4.86 20

**Duplicate (EB61305-DUP3)** Source: 6B10001-09 Prepared: 02/10/06 Analyzed: 02/13/06

% Solids 95.1 % 95.4 0.315 20

**Duplicate (EB61305-DUP4)** Source: 6B10005-05 Prepared: 02/10/06 Analyzed: 02/13/06

% Solids 73.9 % 75.0 1.48 20

**Batch EB62012 - Water Extraction**

**Blank (EB62012-BLK1)** Prepared & Analyzed: 02/20/06

Sulfate ND 0.500 mg/kg

Chloride ND 0.500 "

**LCS (EB62012-BS1)** Prepared & Analyzed: 02/20/06

Chloride 8.66 0.500 mg/kg 10.0 86.6 80-120

Sulfate 8.48 0.500 " 10.0 84.8 80-120

**Calibration Check (EB62012-CCV1)** Prepared & Analyzed: 02/20/06

Chloride 8.83 mg/L 10.0 88.3 80-120

Sulfate 8.96 " 10.0 89.6 80-120



Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

Fax: 505-394-2601

**Reported:**  
02/21/06 15:34

**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
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch EB62012 - Water Extraction**

**Duplicate (EB62012-DUP1)**

**Source: 6B09012-01**

Prepared & Analyzed: 02/20/06

Chloride	44.7	5.00	mg/kg		42.2			5.75	20	
Sulfate	26.8	5.00	"		25.5			4.97	20	

Environmental Lab of Texas

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Page 13 of 14

Environmental Plus, Incorporated  
P.O. Box 1558  
Eunice NM, 88231

Project: Chevron USA/ Lov. San Andres Unit #40  
Project Number: 200068  
Project Manager: Iain Olness

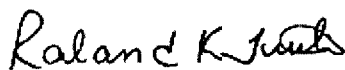
Fax: 505-394-2601

**Reported:**  
02/21/06 15:34

### 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:



Date:

2/21/2006

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.


**2100 Avenue O, Eunice, NM 88231**

**P.O. Box 1558, Eunice, NM 88231**

**(505) 394-3481 FAX: (505) 394-2601**

LAB: ELT

Company Name		Environmental Plus, Inc.																					
EPI Project Manager		Iain Olness																					
Mailing Address		P.O. BOX 1558																					
City, State, Zip		Eunice New Mexico 88231																					
EPI Phone#/Fax#		505-394-3481 / 505-394-2601																					
Client Company		Chevron USA																					
Facility Name		Lov. San Andres Unit #40																					
Location		UL-H, Sec. 01, T 17 S, R 36 E																					
Project Reference		200068																					
EPI Sampler Name		George Blackburn																					
LAB I.D.	SAMPLE I.D.	(G) RAB OR (C) OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	PRESERV.	MATRIX	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO <sub>4</sub> )	PH	TCLP	OTHER >>	PAH
01	1 SB-1 (2'-3')	X	1			X					X			08-Feb-06	8:45	X	X	X					
02	2 SB-1 (5'-6')	X	1			X					X			08-Feb-06	8:51	X	X	X					
03	3 SB-1 (10'-11')	X	1			X					X			08-Feb-06	9:03	X	X	X					
04	4 SB-2 (2'-3')	X	1			X					X			08-Feb-06	9:15	X	X	X					
05	5 SB-2 (5'-6')	X	1			X					X			08-Feb-06	9:19	X	X	X					
06	6 SB-2 (10'-11')	X	1			X					X			08-Feb-06	9:28	X	X	X					
07	7 SB-3 (2'-3')	X	1			X					X			08-Feb-06	9:35	X	X	X					
08	8 SB-3 (5'-6')	X	1			X					X			08-Feb-06	9:40	X	X	X					
9																							
10																							



Attn: Iain Olness  
PO Box 1558  
Eunice, NM 88231

Company Name: Environmental Plus, Inc.

EPI Project Manager: Iain Olness

Mailing Address: P.O. BOX 1558

City, State, Zip: Eunice New Mexico 88231

EPI Phone#/Fax#: 505-394-3481 / 505-394-2601

Client Company: Chevron USA

Facility Name: Lov. San Andres Unit #40

Location: UL-H, Sec. 01, T 17 S, R 36 E

Project Reference: 200068

EPI Sampler Name: George Blackburn

LAB I.D.

SAMPLE I.D.

Sample Refill/Revised: *Iain Olness*

Relinquished by: *Iain Olness*

Delivered by: *Iain Olness*

Received By: *Iain Olness*

Received By: (lab staff) *Iain Olness*

Checked By: *Iain Olness*

Date: 2/19/06

Time: 12:56

Sample Cool & Intact: Yes ☒ No ☐

E-mail results to: iolness@envplus.net

REMARKS:

2.0°C

4oz glass on ice w/label + seal

# Environmental Lab of Texas

## Variance / Corrective Action Report – Sample Log-In

Client: EPI

Date/Time: 2/9/06 12:56

Order #: 0609012

Initials: OK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	2.0 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?	<del>Yes</del>	No	Not present
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	
Container labels legible and intact?	<del>Yes</del>	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:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**APPENDIX III**  
**SOIL BORING LOGS**

(NOTE - Page 1 of 1)



Surface Elevation: 3825-feet amsl

### Description

[illegible]

Water Level Measurements (feet)				
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45
46	47	48	49	50
51	52	53	54	55
56	57	58	59	60
61	62	63	64	65
66	67	68	69	70
71	72	73	74	75
76	77	78	79	80
81	82	83	84	85
86	87	88	89	90
91	92	93	94	95
96	97	98	99	100

Date	Time	Sample Depth	Casing Depth	Cave-In Depth	Water Level	Drilling Method: HSA 3.5' ID
-	-	-	-	-	-	Backfill Method: Bentonite
-	-	-	-	-	-	Field Representative: GB

(NOTE - Page 1 of 1)



ENVIRONMENTAL PLUS, INC.  
CONSULTING AND  
REMEDIAL CONSTRUCTION  
EUNICE, NEW MEXICO  
505-394-3481

Surface Elevation: 3825-feet amsl

Time: 0915hrs

Time: 0938hrs

### Description

[illegible]

Water Level Measurements (feet)
---------------------------------

Date	Time	Sample Depth	Casing Depth	Cave-In Depth	Water Level	Drilling Method: HSA 3.5' ID
-	-	-	-	-	-	Backfill Method: Bentonite
-	-	-	-	-	-	Field Representative: GB

(NOTE - Page 1 of 1)



Project Number: 200068

Project Name: Lovington San Andres #40

Location: UL , Section 1, Township 17 South, Range 36 East

Boring Number: SB-3

Surface Elevation: 3825-feet amsl

[illegible]



**APPENDIX IV**

**INFORMATION AND METRICS FORM**

**INITIAL NMOCD FORM C-141**

**FINAL NMOCD FORM C-141**



**Incident Date:**  
12/11/05 @ 10:00AM

**NMOCD Notified**  
12/11/05 @ 11:30 AM

### Information and Metrics

<b>Site:</b> Lovington San Andres Unit #40		<b>Assigned Site Reference :</b> NMOCD 1RP#1228; EPI #200068	
<b>Company:</b> Chevron USA, Inc.			
<b>Street Address:</b> 2401 Avenue 'O'			
<b>Mailing Address:</b> P.O. Box 1949			
<b>City, State, Zip:</b> Eunice, New Mexico 88231			
<b>Representative:</b> Larry Williams			
<b>Representative Telephone:</b> (505) 396-4414, ext. 128			
<b>Telephone:</b>			
<b>Fluid volume released (bbls):</b> 20-bbls		<b>Recovered (bbls):</b> Zero (0)	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
<b>Leak, Spill, or Pit (LSP) Name:</b> Lovington San Andres Unit #40			
<b>Source of contamination:</b> Injection well			
<b>Land Owner, i.e., BLM, ST, Fee, Other:</b> City of Lovington			
<b>LSP Dimensions:</b> unknown			
<b>LSP Area:</b> ~5,100-ft <sup>2</sup>			
<b>Location of Reference Point (RP):</b>			
<b>Location distance and direction from RP:</b>			
<b>Latitude:</b> N 32° 51' 57.45"			
<b>Longitude:</b> W 103° 18' 05.18"			
<b>Elevation above mean sea level:</b> 3,820-feet			
<b>Feet from South Section Line:</b>			
<b>Feet from East Section Line:</b>			
<b>Location- Unit or ¼:</b> SE¼ of the NE¼		<b>Unit Letter:</b> H	
<b>Location- Section:</b> 1			
<b>Location- Township:</b> 17 South			
<b>Location- Range:</b> 36 East			
<b>Surface water body within 1000' radius of site:</b> none			
<b>Domestic water wells within 1000' radius of site:</b> none			
<b>Agricultural water wells within 1000' radius of site:</b> one			
<b>Public water supply wells within 1000' radius of site:</b> none			
<b>Depth from land surface to groundwater (DG):</b> ~56 feet			
<b>Depth of contamination (DC):</b> unknown			
<b>Depth to groundwater (DG – DC = DtGW):</b> ~56 feet			
<b>1. Groundwater</b>		<b>2. Wellhead Protection Area</b>	
If Depth to GW <50 feet: <i>20 points</i>		If <1000' from water source, or; <200' from private domestic water source: <i>20 points</i>	
If Depth to GW 50 to 99 feet: <i>10 points</i>		If >1000' from water source, or; >200' from private domestic water source: <i>0 points</i>	
If Depth to GW >100 feet: <i>0 points</i>			
<b>Site Rank (1+2+3) = 10+0+0=10</b>			
<b>Total Site Ranking Score and Acceptable Concentrations</b>			
Parameter	>19	10-19	0-9
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm
<sup>1</sup> 100 ppm field VOC headspace measurement may be substituted for lab analysis			

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: Pure Resources, LP	Contact: Wayne Minchew
Address: 500 W. Illinois Ave., Midland Texas 79702	Telephone No.: (505) 396-4414
Facility Name: Lovington San Andres Unit #40	Facility Type: Injection well

Surface Owner: City of Lovington, NM	Mineral Owner: State of New Mexico	API No.: 30-025-05360
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	I	17S	36E					Lea

#### NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 20-bbbls	Volume Recovered: none
Source of Release: Poly flow line froze and burst	Date and Hour of Occurrence: 12/11/05 @ 10:00 AM	Date and Hour of Discovery: 12/11/05 @ 11:30 AM
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? Wayne Minchew	Date and Hour: 12/12/05 @ 1:00 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: Not Applicable	

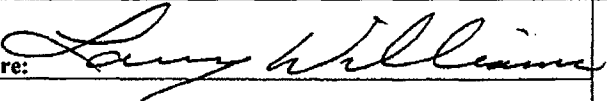
If a Watercourse was Impacted, Describe Fully.\* Not Applicable

Depth to Groundwater: ~56 feet

Describe Cause of Problem and Remedial Action Taken.\* Approximately 20 barrels of produced water were released when a poly flow line froze and burst (used to flow back well prior to pulling). Zero (0) barrels of fluid were recovered. Produced water line was shut-off and repaired. Approximately 5,100 square feet of surface area was affected by the release. Impacted soil was excavated and disposed at a State approved land disposal facility.

Describe Area Affected and Cleanup Action Taken.\* Release area is to be delineated and impacted soil removed as necessary.

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: 		OIL CONSERVATION DIVISION	
Printed Name: Larry Williams		Approved by District Supervisor:	
Title: HES Champion		Approval Date:	Expiration Date:
E-mail Address: lcwl@chevron.com		Conditions of Approval:	
Date: 12/12/2005 Phone: (505) 396-4414 Ext. 128		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

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1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
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with Rule 116 on back  
side of form

**Release Notification and Contingency Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

<b>Name of Company:</b> Chevron	<b>Contact:</b> Larry Williams
<b>Address:</b> P.O. Box 1949 Eunice, NM 88231	<b>Telephone No.:</b>
<b>Facility Name:</b> Lovington San Andres Unit #40	<b>Facility Type:</b> Injection well

<b>Surface Owner:</b> City of Lovington	<b>Mineral Owner:</b> City of Lovington	<b>API No.:</b> 30-025-03813
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	1	17S	36E					Lea

**Latitude:** N 32° 51' 57.45" **Longitude:** W 103° 18' 05.18"

**NATURE OF RELEASE**

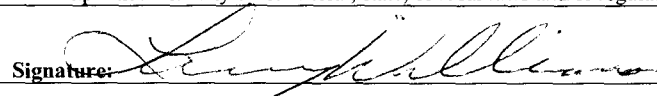
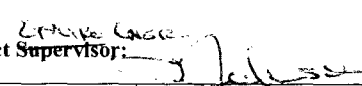
<b>Type of Release:</b> produced water	<b>Volume of Release:</b> unknown	<b>Volume Recovered:</b> none
<b>Source of Release:</b> Injection well	<b>Date and Hour of Occurrence:</b> unknown	<b>Date and Hour of Discovery:</b> unknown
<b>Was Immediate Notice Given?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	<b>If YES, To Whom?</b> Pat Caperton, NMOCD	
<b>By Whom?</b>	<b>Date and Hour:</b> unknown	
<b>Was a Watercourse Reached?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If YES, Volume Impacting the Watercourse:</b> Not Applicable	
<b>If a Watercourse was Impacted, Describe Fully.*</b> Not Applicable		

**Depth to Groundwater:** ~56 feet

**Describe Cause of Problem and Remedial Action Taken.\*** An unknown amount of produced water was released when a flow-line failed. Zero (0) barrels of fluid were recovered. Excavation was completed by another contractor.

**Describe Area Affected and Cleanup Action Taken.\*** Approximately 5,100 square feet of surface area was affected by the release. On February 8, 2006 EPI was on-site and three (3) soil borings were advanced throughout the release area to approximately 11-ft bgs to delineate the vertical extent of impacted soil. Upon receipt of Soil Boring Soil Sample Laboratory Analytical Data confirming soil impacted above NMOCD remedial threshold goals were excavated. EPI backfilled the excavation with approximately 160 yds<sup>3</sup> of clean top soil. Entire disturbed area was graded for natural drainage and will be seeded with a blend preferred by the NMSLO.

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.

<b>Signature:</b> 	<b>OIL CONSERVATION DIVISION</b>	
<b>Printed Name:</b> Larry Williams	<b>Approved by District Supervisor:</b> 	
<b>Title:</b> HES Champion	<b>Approval Date:</b> 5.15.07	<b>Expiration Date:</b> 6.15.07
<b>E-mail Address:</b> larry.williams@chevron.com	<b>Conditions of Approval:</b>	<b>Attached</b> <input type="checkbox"/>
<b>Date:</b> 3.12.07 <b>Phone:</b>		

\* Attach Additional Sheets If Necessary

RP# 1225