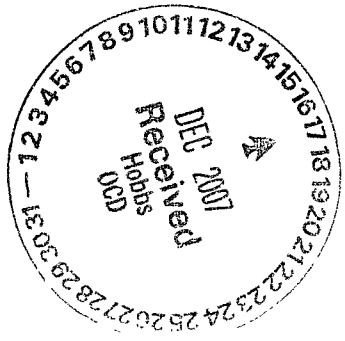
Ocotillo
ENVIRONMENTAL
Dirt Work • On-Site Remediation • Soil Testing • Excavation



December 14, 2007

Mr. Larry Johnson
New Mexico Oil Conservation Division
1625 French Drive
Hobbs, New Mexico 88240

Re: Spill Remediation Workplan,
Chevron, Lovington Paddock Unit #7,
Unit Letter P (SE/4, SE/4), Section 25, Township 16 South, Range 36 East,
Lea County, New Mexico
1RP #1604

Dear Mr. Johnson:

Attached please find the Spill Remediation Workplan for the Chevron MidContinent SBU, Lovington Paddock Unit #7.

If you have any questions or need additional information, please do not hesitate to call me at (505) 441-7244 or email me at Cindy.Crain@gmail.com.

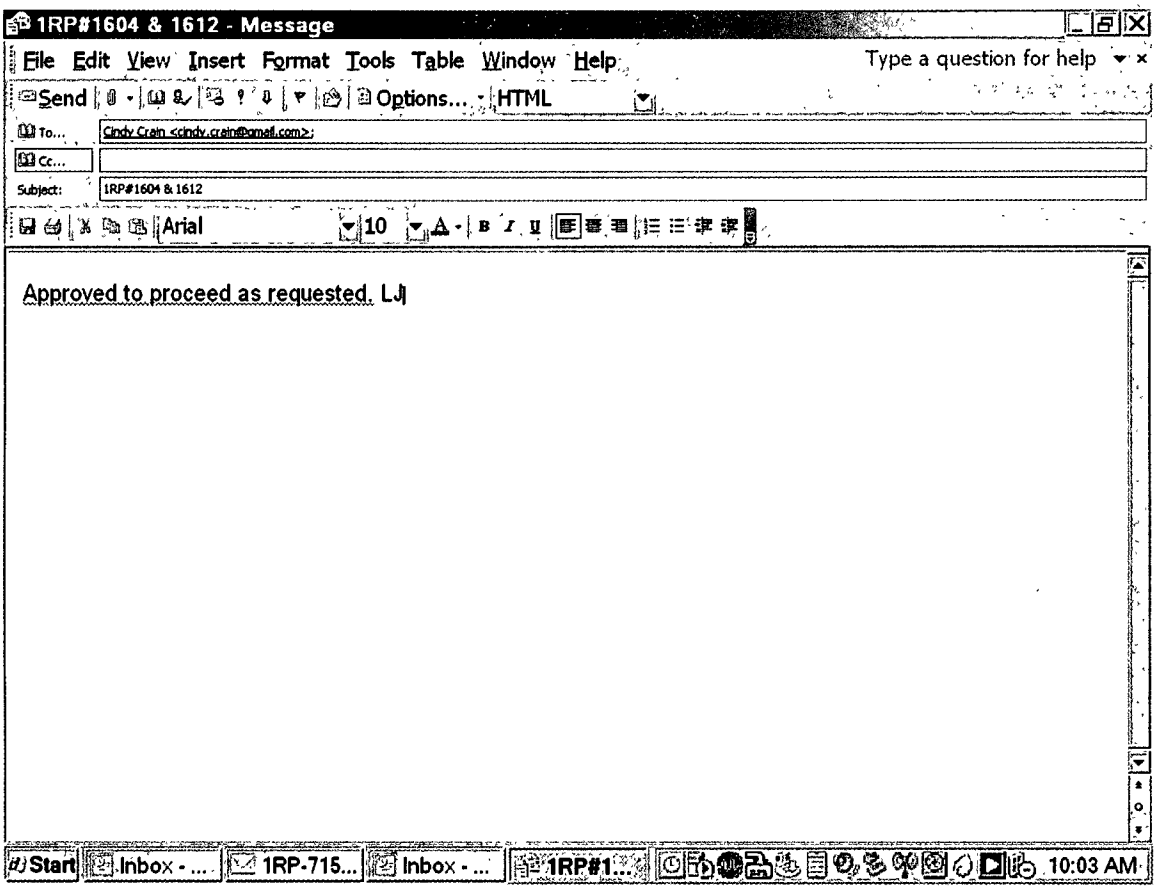
Sincerely,
Ocotillo Environmental

Cindy K. Crain

Cindy K. Crain, P.G.
Environmental Manager

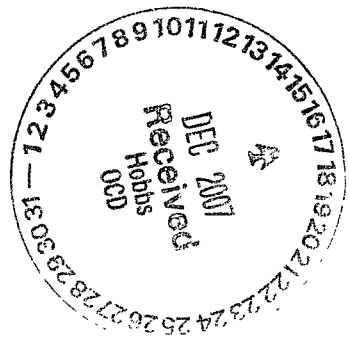
cc: Larry Ridenour, Chevron

P.O. Box 1816 • Hobbs, NM 88241
Office (505) 393-6371 • Fax (505) 393-6374


1RP#1604 & 1612 - Message
File Edit View Insert Format Tools Table Window Help
Type a question for help
Send
Options...
HTML
To...
Cindy Crain <cindy.crain@gmail.com>;
Cc...
Subject:
1RP#1604 & 1612
Arial
10
Approved to proceed as requested. LJ
Start
Inbox - ...
1RP-715...
Inbox - ...
1RP#1...
10:03 AM

Ocotillo
ENVIRONMENTAL
Dirt Work • On-Site Remediation • Soil Testing • Excavation

December 10, 2007



Mr. Larry Johnson
Environmental Engineer
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Spill Remediation Workplan, Lovington Paddock Unit #7,
Unit Letter P (SE/4, SE/4), Section 25, Township 16 South, Range 36 East,
Lea County, New Mexico
(Latitude: N 32 deg. 53 min. 12.85 sec. / Longitude: W 103 deg. 18 min. 1.02 sec.)
1RP #1604

Dear Mr. Johnson:

Chevron MidContinent SBU (Chevron) has retained Ocotillo Environmental, LLC (Ocotillo) to remediate impacts to soil from a leak at an injection line located approximately 75 feet east of the Lovington Paddock Unit #7 well. The well is located in the southeast quarter (SE/4) of the southeast quarter (SE/4), Section 25, Township 16 South, Range 36 East, Lea County, New Mexico (Site). Approximately 20 barrels of produced water was released from the injection line on September 26, 2007, and approximately 15 barrels was recovered from the site. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on October 1, 2007. A Spill Investigation Workplan was submitted to the NMOCD on October 4, 2007, and verbal approval of the plan was granted on October 11, 2007. Figure 1 shows the site location.

Based on published literature (1961), well records of the New Mexico State Engineer, and well records of the United States Geological Survey, groundwater occurs at approximately 65 feet bgs in the well located nearest the Site. No domestic water wells are located within 1,000 feet of the site. The NMOCD has established recommended remediation action levels (RRALs) for benzene, total BTEX and TPH resulting from spills of natural gas liquids ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	50 - 99 Feet	10
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
		Total: 10

The following RRALs have been assigned based on NMOCD criteria:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**1,000 mg/kg**

Initial Investigation

On November 13, 2007, Ocotillo installed five (5) soil borings (BH-1 through BH-5) at the site, using an air rotary drilling rig, in order to assess the horizontal and vertical limits of the spill. Soil had been previously scraped from the surface of the spill area and stockpiled on site.

Soil samples from the exploratory borings were collected in five foot intervals from the ground surface to a depth of approximately 27 feet below ground surface (bgs) in boring BH-2, a depth of 32 feet bgs in boring BH-3, a depth of 17 feet bgs in boring BH-4, and a depth of 22 feet bgs in boring BH-5. Samples were collected from a depth of approximately five (5) feet bgs in boring BH-1 to a depth of 22 feet bgs. All samples were collected using a split-spoon sampling device. The sampling equipment was thoroughly cleaned between soil boring locations with a solution of laboratory-grade detergent and potable water, and rinsed with distilled water. All soil borings were plugged with bentonite. Figure 2 shows the locations of the soil borings.

The soil samples from borings BH-1 through BH-5 were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control to Environmental Lab of Texas (ELOT), located in Odessa, Texas. A duplicate of each sample was also placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately ¾ full, and a layer of aluminum foil was placed over the opening of the jar before replacing the cap. The headspace samples were allowed to reach ambient temperature before a BW Technologies GasAlertMicro 5 photoionization detector (PID) was used to measure the concentration of organic vapors in the headspace of the sample jars. The PID probe was inserted into the headspace of the sample jars (through the aluminum foil) and the concentration of organic vapors was displayed by the instrument in parts per million (ppm). The PID readings are shown on the borings logs included in Appendix A.

All soil samples collected from borings BH-1 through BH-5 were analyzed for chlorides by EPA method 325.3. The uppermost two (2) samples from each boring were also analyzed for total petroleum hydrocarbons (TPH) by EPA method SW8015 (extended) for gasoline range organics (GRO) and diesel range organics (DRO). The PID reading from each sample was less than 100 ppm, therefore, no analysis for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) was conducted. Table 1 presents a summary of the laboratory analysis of soil samples. Laboratory analysis and chain of custody documentation are included in Appendix B.

Referring to Table 1, TPH concentrations in samples from borings BH-1, BH-4 and BH-5, were all reported below the test method detection limit. TPH concentrations were reported in the samples from boring BH-2 at a depth of 0-2' bgs (61.6 mg/kg), and from boring BH-3 at a depth of 0-2' bgs (119.4 mg/kg). TPH concentrations from both samples were well below the RRAL of 1,000 mg/kg. Chloride concentrations in samples from borings BH-1, BH-4 and BH-5 were all below the RRAL of 250 mg/kg. The soil samples collected from boring BH-3 at a depth of 10-12' bgs and 20-22' bgs, reported chloride concentrations slightly above 250 mg/kg (255 mg/kg and 277 mg/kg, respectively). All other samples from boring BH-3 reported chloride concentrations below 250 mg/kg. The sample from boring BH-2 at a depth of 0-2' bgs reported a chloride concentration of 3,200 mg/kg. All other samples from boring BH-2 reported chloride concentrations below 250 mg/kg.

Proposed Remediation

Chevron proposes to conduct excavation of the impacted soil in the vicinity of boring BH-2 to a depth of approximately four (4) feet bgs. Since a sample was not collected from the surface (0-2' bgs) at boring BH-1, a sample will also be collected at that location to determine if additional soil needs to be removed. Confirmation samples will be collected from the excavated area, to provide documentation of chloride concentrations less than 250 mg/kg. Excavated and currently stockpiled soil will be removed to an NMOCD approved disposal facility. Analytical results from final confirmation samples will be reported to the NMOCD prior to backfilling of the excavation.

If you have any questions or need additional information, please call Mr. Larry Ridenour at (505) 396-4414 x102, or myself at (505) 441-7244. We may also be reached by email at Lridenour@chevron.com or Cindy.Crain@gmail.com.

Sincerely,
Ocotillo Environmental, LLC

Cindy K. Crain

Cindy K. Crain, P.G.
Environmental Manager

cc: Larry Ridenour, Chevron

FIGURES

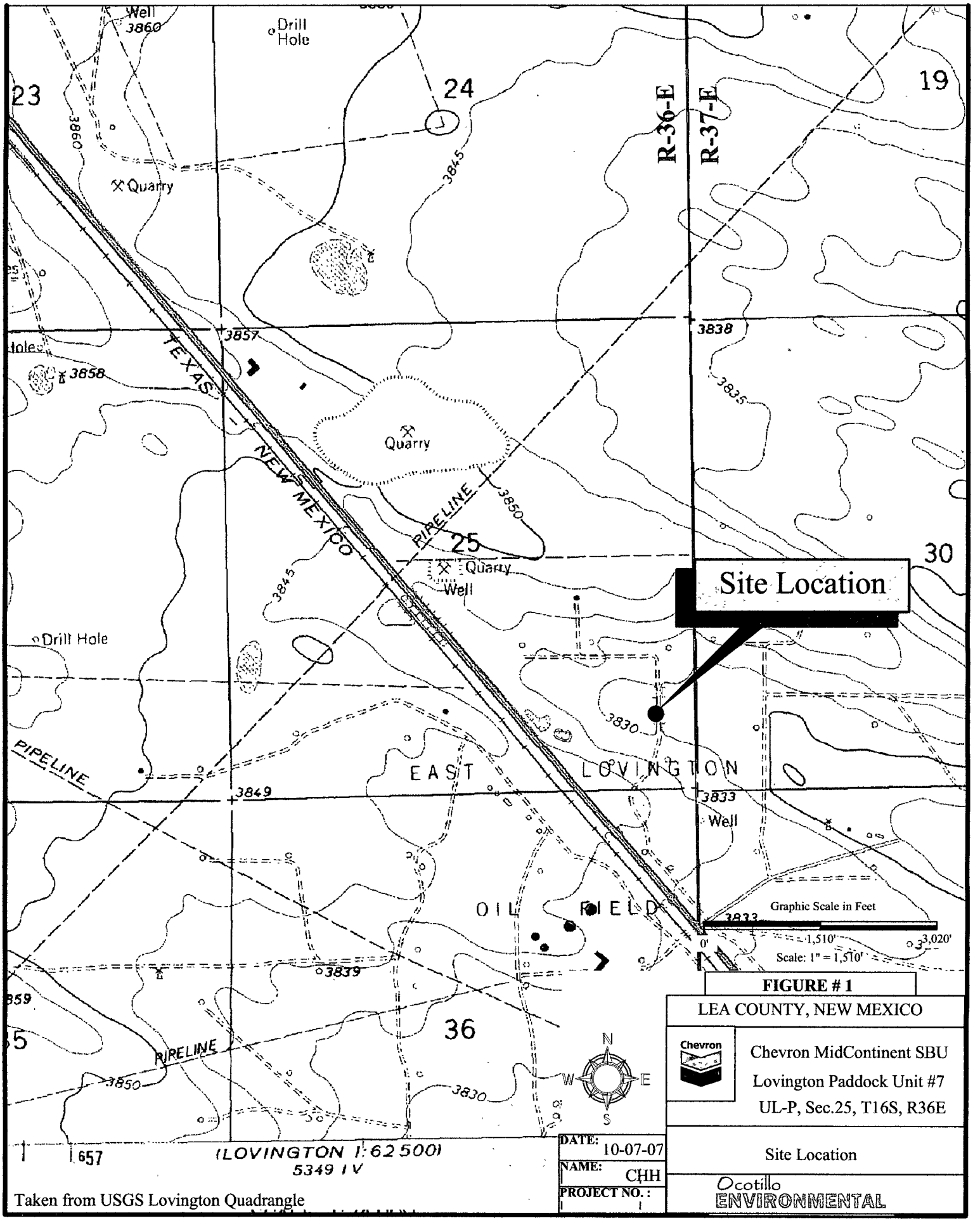


FIGURE # 1

LEA COUNTY, NEW MEXICO

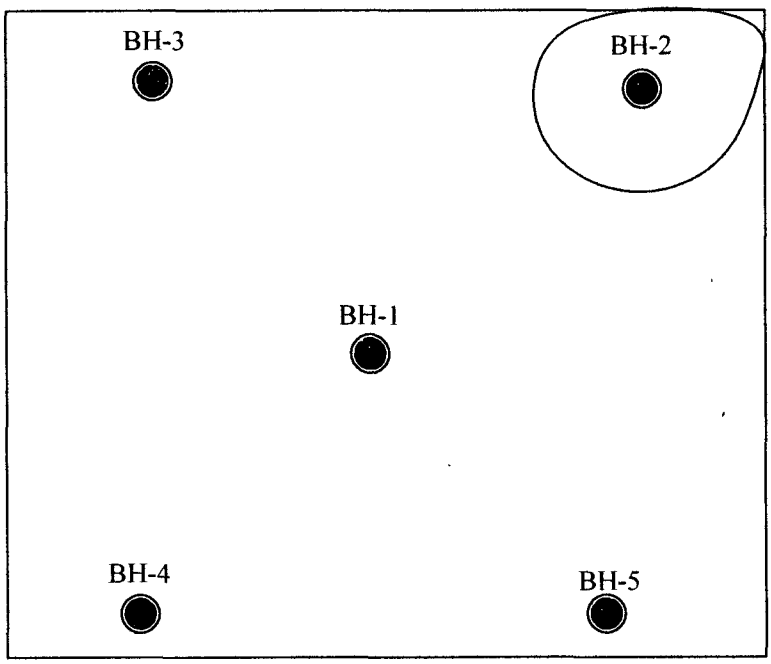
Chevron

Chevron MidContinent SBU
Lovington Paddock Unit #7
UL-P, Sec.25, T16S, R36E

Site Location

DATE:	10-07-07
NAME:	CHH
PROJECT NO. :	

Ocotillo ENVIRONMENTAL



Graphic Scale in Feet

0' 25' 50'

Scale 1" = 25'

Figure # 2

LEA COUNTY, NEW MEXICO

Chevron MidContinent SBU
Lovington Paddock Unit #7
UL-P, Sec. 25, T16S, R36E

Site Drawing With Soil Boring Locations and Proposed Excavation Area

N
W E
S

LEGEND

Soil Boring Location

Spill Area Boundary

Proposed Excavation Area

DATE:	12-08-07
NAME:	MAC
PROJECT NO.:	1107-007B

Ocotillo ENVIRONMENTAL

TABLE

Table 1:
Summary of Laboratory Analysis of Soil Samples
Chevron MidContinent Alaska, Lovington Paddock #7
Section 25, Township 16 South, Range 36 East
Lea County, New Mexico

Sample Date	Soil Boring Number	Sample Depth (feet BGS)	TPH (GRO) C6 - C12 mg/kg	TPH (DRO) C12 - C28 mg/kg	TPH (ORO) C28 - C35 mg/kg	Total TPH C6 - C35 mg/kg	Chloride (mg/kg)
RRAL						**1000**	**250**
11/13/07	BH-1	5-7	<16.7	<16.7	<16.7	<50.1	94.5
		10-12	<16.7	<16.7	<16.7	<50.1	96.5
		15-17	---	---	---	---	42.5
		20-22	---	---	---	---	42.5
	BH-2	0-2	<16.1	61.6	<16.1	61.6	3,200.0
		5-7	<16.5	<16.5	<16.5	<49.5	234.0
		10-12	---	---	---	---	191.0
		15-17	---	---	---	---	128.0
		20-22	---	---	---	---	63.8
		25-27	---	---	---	---	42.5
	BH-3	0-2	<15.9	75.3	44.1	119.4	67.7
		5-7	<15.7	<15.7	<15.7	<47.1	223.0
		10-12	---	---	---	---	255.0
		15-17	---	---	---	---	234.0
		20-22	---	---	---	---	277.0
		25-27	---	---	---	---	170.0
		30-32	---	---	---	---	128.0
	BH-4	0-2	<15.3	<15.3	<15.3	<45.9	43.4
		5-7	<15.3	<15.3	<15.3	<45.9	43.4
		10-12	---	---	---	---	42.5
		15-17	---	---	---	---	42.5
	BH-5	0-2	<15.4	<15.4	<15.4	<46.2	65.5
		5-7	<15.7	<15.7	<15.7	<47.1	44.4
		10-12	---	---	---	---	21.3
		15-17	---	---	---	---	21.3
		20-22	---	---	---	---	42.5

Notes:

1. BGS: Depth in feet below ground surface
2. mg/kg: Milligrams per kilogram
3. GRO: Gasoline Range Organics
4. DRO: Diesel Range Organics
5. ORO: Oil Range Organics

APPENDIX A

SOIL BORING LOGS

Client: Chevron MidContinent SBU

Project: Lovington Paddock #7

Project No.: 1107-007B

Location: Sec. 25, T16S, R36E

Log: BH-1

Page: 1 of 1

Geologist: C. Crain

Depth	Symbol	Description	Sample Number	Sample Type	Sample Recovery	Field Chloride ppm (25 – 75)	Analytical Data
0		Ground Surface					
0		**Caliche** Pinkish white, non-indurated quartz sand					
5			1	SS	2	59	5-7' bgs Total TPH = <50.1 mg/kg Chloride = 94.5 mg/kg
10		**Silty Sand** Light brown silty quartz sand, very fine grained, moderately well sorted, moderately loose	2	SS	2	59	10-12' bgs Total TPH = <50.1 mg/kg Chloride = 96.5 mg/kg
15			3	SS	2	0	15-17' bgs Chloride = 42.5 mg/kg
20			4	SS	2	0	20-22' bgs Chloride = 42.5 mg/kg
		TD at 22'					
25							
30							
35							
40							

Ocotillo Environmental, LLC
2125 French Drive
Hobbs, NM 88240
(505) 393-6371

Drill Method: Air Rotary

Drill Date: 11/13/07

Hole Size: 4"

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Chevron MidContinent SBU

Project: Lovington Paddock #7

Project No.: 1107-007B

Location: Sec. 25, T16S, R36E

Log: BH-2

Page: 1 of 1

Geologist: C. Crain

Depth	Symbol	Description	Sample Number	Sample Type	Sample Recovery	Field Chloride ppm (250)	Analytical Data
0		Ground Surface					
		Silty Sand Dark brown very poorly sorted silty quartz sand.	1	SS	2	450	0-2' bgs Total TPH = 61.6 mg/kg Chloride = 3200.0mg/kg
5		**Caliche** Pinkish white, non indurated, quartz sand.	2	SS	2	550	5-7' bgs Total TPH = <49.5 mg/kg Chloride = 234 mg/kg
10		**Silty Sand** Light brown silty quartz sand, fine grained, moderately loose.	3	SS	2	250	10-12' bgs Chloride = 191mg/kg 15-17' bgs
15			4	SS	2	200	Chloride = 128 mg/kg
20			5	SS	2	200	20-22'bgs Chloride 63.8 mg/kg
25			6	SS	2	400	25-27' bgs Chloride 42.5 mg/kg
		TD@27'					
30							
35							
40							

Ocotillo Environmental, LLC
2125 French Drive
Hobbs, NM 88240
(505) 393-6371

Drill Method: Air Rotary

Drill Date: 11/13/07

Hole Size: 4"

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Chevron MidContinent SBU

Project: Lovington Paddock #7

Project No.: 1107-007B

Location: Sec. 25, T16S, R36E

Log: BH-3

Page: 1 of 1

Geologist: C. Crain

Depth	Symbol	Description	Sample Number	Sample Type	Sample Recovery	Field Chloride ppm (250)	Analytical Data
0		Ground Surface					
0		**Silty Sand** Dark brown very poorly sorted silty quartz sand, very fine grained.	1	SS	2	0	0-2' bgs Total TPH = 119.4 mg/kg Chloride = 67.7 mg/kg
5		**Caliche** Pinkish white, non indurated, quartz sand, dry.	2	SS	2	500	5-7' bgs Total TPH = <47.1 mg/kg Chloride = 223 mg/kg
10		**Silty Sand** Light brown silty quartz sand, fine grained, moderately loose, moderately well sorted, dry.	3	SS	2	750	10-12' bgs Chloride = 255 mg/kg
15			4	SS	2	500	15-17' bgs Chloride = 234 mg/kg
20			5	SS	2	750	20-22'bgs Chloride = 277 mg/kg
25			6	SS	2	250	25-27' bgs Chloride = 170 mg/kg
30			7	SS	2	225	30-32- bgs Chloride = 128 mg/kg
35		**TD@32'**					
40							

Ocotillo Environmental, LLC
2125 French Drive
Hobbs, NM 88240
(505) 393-6371

Drill Method: Air Rotary

Drill Date: 11/13/07

Hole Size: 4"

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Chevron MidContinent SBU

Project: Lovington Paddock #7

Project No.: 1107-007B

Location: Sec. 25, T16S, R36E

Log: BH-4

Page: 1 of 1

Geologist: C. Crain

Depth	Symbol	Description	Sample Number	Sample Type	Sample Recovery	Field Chloride ppm (250)	Analytical Data
0		Ground Surface					
		Caliche Sandy pinkish white, quartz, non indurated caliche, dry.	1	SS	2	0	0-2' bgs Total TPH = <45.9 mg/kg Chloride = 43.4 mg/kg
5			2	SS	2	0	5-7' bgs Total TPH = <45.9 mg/kg Chloride = 43.4 mg/kg
10		**Silty Sand** Light brown, silty quartz sand, fine grained, moderately well sorted, moderately loose, dry.	3	SS	2	0	10-12' bgs Chloride = 42.5 mg/kg
15			4	SS	2	0	15-17' bgs Chloride = 42.5 mg/kg
		TD@17'					
20							
25							
30							
35							
40							

Ocotillo Environmental, LLC
2125 French Drive
Hobbs, NM 88240
(505) 393-6371

Drill Method: Air Rotary

Drill Date: 11/13/07

Hole Size: 4"

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Chevron MidContinent SBU

Project: Lovington Paddock #7

Project No.: 1107-007B

Location: Sec. 25, T16S, R36E

Log: BH-5

Page: 1 of 1

Geologist: C. Crain

Depth	Symbol	Description	Sample Number	Sample Type	Sample Recovery	Field Chloride ppm (250)	Analytical Data
0		Ground Surface					
0		**Caliche** Sandy pinkish white, quartz, non indurated caliche, dry.	1	SS	2	0	0-2' bgs Total TPH = <46.2 mg/kg Chloride = 65.5 mg/kg
5			2	SS	2	0	5-7' bgs Total TPH = <47.1 mg/kg Chloride = 44.4 mg/kg
10		**Silty Sand** Light tan, silty quartz sand, fine grained, moderately well sorted, loose, dry.	3	SS	2	0	10-12' bgs Chloride = 21.3 mg/kg
15			4	SS	2	0	15-17' bgs Chloride = 21.3 mg/kg
20			5	SS	2	0	20-22' bgs Chloride 42.5 mg/kg
22		**TD@22'**					
25							
30							
35							
40							

Ocotillo Environmental, LLC
2125 French Drive
Hobbs, NM 88240
(505) 393-6371

Drill Method: Air Rotary

Drill Date: 11/13/07

Hole Size: 4"

Elevation: NA

Checked by: CKC

Drilled by: Scarborough Drilling

APPENDIX B

ANALYTICAL DATA AND CHAIN OF CUSTODY DOCUMENTATION

Analytical Report 293280

for

Ocotillo Environmental, LLC

Project Manager: Cindy Crain

Chevron Lovington Paddock Unit #7

1107-007B

27-NOV-07

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

27-NOV-07

Project Manager: **Cindy Crain**
Ocotillo Environmental, LLC
P.O. Box 1816
Hobbs, NM 88241

Reference: XENCO Report No: **293280**
Chevron Lovington Paddock Unit #7
Project Address: Sec. 25, T16S, R36E, Lea Co., NM

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 293280. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 293280 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 293280

Ocotillo Environmental, LLC, Hobbs, NM

Chevron Lovington Paddock Unit #7

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 (5-7')	S	Nov-13-07 09:42	5 - 7 ft	293280-001
BH-1 (10-12')	S	Nov-13-07 09:52	10 - 12 ft	293280-002
BH-1 (15-17')	S	Nov-13-07 09:58	15 - 17 ft	293280-003
BH-1 (20-22')	S	Nov-13-07 10:02	20 - 22 ft	293280-004
BH-2 (0-2')	S	Nov-13-07 10:17	0 - 2 ft	293280-005
BH-2 (5-7')	S	Nov-13-07 10:25	5 - 7 ft	293280-006
BH-2 (10-12')	S	Nov-13-07 10:30	10 - 12 ft	293280-007
BH-2 (15-17')	S	Nov-13-07 10:35	15 - 17 ft	293280-008
BH-2 (20-22')	S	Nov-13-07 10:40	20 - 22 ft	293280-009
BH-2 (25-27')	S	Nov-13-07 10:49	25 - 27 ft	293280-010
BH-3 (0-2')	S	Nov-13-07 12:12	0 - 2 ft	293280-011
BH-3 (5-7')	S	Nov-13-07 12:20	5 - 7 ft	293280-012
BH-3 (10-12')	S	Nov-13-07 12:25	10 - 12 ft	293280-013
BH-3 (15-17')	S	Nov-13-07 12:30	15 - 17 ft	293280-014
BH-3 (20-22')	S	Nov-13-07 12:35	20 - 22 ft	293280-015
BH-3 (25-27')	S	Nov-13-07 12:43	25 - 27 ft	293280-016
BH-3 (30-32')	S	Nov-13-07 12:51	30 - 32 ft	293280-017
BH-4 (0-2')	S	Nov-13-07 13:08	0 - 2 ft	293280-018
BH-4 (5-7')	S	Nov-13-07 13:15	5 - 7 ft	293280-019
BH-4 (10-12')	S	Nov-13-07 13:21	10 - 12 ft	293280-020
BH-4 (15-17')	S	Nov-13-07 13:28	15 - 17 ft	293280-021
BH-5 (0-2')	S	Nov-13-07 13:35	0 - 2 ft	293280-022
BH-5 (5-7')	S	Nov-13-07 13:43	5 - 7 ft	293280-023
BH-5 (10-12')	S	Nov-13-07 13:50	10 - 12 ft	293280-024
BH-5 (15-17')	S	Nov-13-07 13:49	15 - 15 ft	293280-025
BH-5 (20-22')	S	Nov-13-07 13:59	20 - 22 ft	293280-026

Certificate of Analysis Summary 293280

Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Paddock Unit #7

Project Id: 1107-007B
Contact: Cindy Crain
Project Location: Sec. 25, T16S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11.39 am
Report Date: 27-NOV-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	293280-001		293280-002		293280-003		293280-004		293280-005		293280-006	
	Field Id:	BH-1 (5-7')		BH-1 (10-12')		BH-1 (15-17')		BH-1 (20-22')		BH-2 (0-2')		BH-2 (5-7')	
	Depth:	5-7 ft		10-12 ft		15-17 ft		20-22 ft		0-2 ft		5-7 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-13-07 09 42		Nov-13-07 09:52		Nov-13-07 09:58		Nov-13-07 10.02		Nov-13-07 10:17		Nov-13-07 10:25	
Percent Moisture	*Extracted:*												
	Analyzed:	Nov-19-07 12:30		Nov-19-07 12:30						Nov-19-07 12:30		Nov-19-07 12:30	
	Units/RL:	%	RL	%	RL					%	RL	%	RL
Percent Moisture		9.97	1.00	11.8	1.00					6.91	1.00	9.15	1.00
TPH by SW8015 Mod	*Extracted:*	Nov-20-07 14.20		Nov-20-07 14:20						Nov-20-07 14:20		Nov-20-07 14:20	
	Analyzed:	Nov-25-07 12:54		Nov-25-07 13:22						Nov-25-07 13:50		Nov-25-07 14:18	
	Units/RL:	mg/kg	RL	mg/kg	RL					mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.7	ND	17.0					ND	16.1	ND	16.5
C12-C28 Diesel Range Hydrocarbons		ND	16 7	ND	17.0					61.6	16.1	ND	16.5
C28-C35 Oil Range Hydrocarbons		ND	16 7	ND	17.0					ND	16.1	ND	16 5
Total TPH		ND		ND						61.6		ND	
Total Chloride by EPA 325.3	*Extracted:*												
	Analyzed:	Nov-20-07 07:45		Nov-20-07 07.45		Nov-20-07 07 45		Nov-20-07 07.45		Nov-20-07 07:45		Nov-20-07 07:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		94.5	5.55	96.5	5.67	42.5	5.00	42.5	5.00	3200	5.37	234	5.50

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 293280

Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Paddock Unit #7

Project Id: 1107-007B
Contact: Cindy Crain
Project Location: Sec. 25, T16S, R36E, Lea Co.. NM

Date Received in Lab: Sat Nov-17-07 11:39 am
Report Date: 27-NOV-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	293280-007		293280-008		293280-009		293280-010		293280-011		293280-012	
	Field Id:	BH-2 (10-12')		BH-2 (15-17')		BH-2 (20-22')		BH-2 (25-27')		BH-3 (0-2')		BH-3 (5-7')	
	Depth:	10-12 ft		15-17 ft		20-22 ft		25-27 ft		0-2 ft		5-7 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-13-07 10:30		Nov-13-07 10.35		Nov-13-07 10:40		Nov-13-07 10.49		Nov-13-07 12:12		Nov-13-07 12:20	
Percent Moisture	*Extracted:*												
	Analyzed:									Nov-19-07 12:30		Nov-19-07 12:30	
	Units/RL:									%	RL	%	RL
Percent Moisture										5.78	1.00	4.46	1.00
TPH by SW8015 Mod	*Extracted:*									Nov-20-07 14.20		Nov-20-07 14.20	
	Analyzed:									Nov-25-07 14:45		Nov-25-07 15:13	
	Units/RL:									mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons										ND	15 9	ND	15 7
C12-C28 Diesel Range Hydrocarbons										75.3	15.9	ND	15.7
C28-C35 Oil Range Hydrocarbons										44.1	15.9	ND	15 7
Total TPH										119.4		ND	
Total Chloride by EPA 325.3	*Extracted:*												
	Analyzed:	Nov-20-07 07:45		Nov-20-07 07.45		Nov-20-07 07.45		Nov-20-07 07:45		Nov-20-07 07:45		Nov-20-07 07:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		191	5.00	128	5.00	63.8	5.00	42.5	5.00	67.7	5.31	223	5 23

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 293280

Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Paddock Unit #7

Project Id: 1107-007B
Contact: Cindy Crain
Project Location: Sec. 25, T16S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:39 am
Report Date: 27-NOV-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	293280-013		293280-014		293280-015		293280-016		293280-017		293280-018	
	Field Id:	BH-3 (10-12')		BH-3 (15-17')		BH-3 (20-22')		BH-3 (25-27')		BH-3 (30-32')		BH-4 (0-2')	
	Depth:	10-12 ft		15-17 ft		20-22 ft		25-27 ft		30-32 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-13-07 12.25		Nov-13-07 12 30		Nov-13-07 12:35		Nov-13-07 12.43		Nov-13-07 12:51		Nov-13-07 13 08	
Percent Moisture	***Extracted:***												
	Analyzed:											Nov-19-07 12:30	
	Units/RL:											%	RL
Percent Moisture												2.09	1.00
TPH by SW8015 Mod	***Extracted:***											Nov-20-07 14 20	
	Analyzed:											Nov-25-07 15:40	
	Units/RL:											mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons												ND	15 3
C12-C28 Diesel Range Hydrocarbons												ND	15 3
C28-C35 Oil Range Hydrocarbons												ND	15 3
Total TPH												ND	
Total Chloride by EPA 325.3	***Extracted:***												
	Analyzed:	Nov-20-07 07:45		Nov-20-07 07 45		Nov-20-07 07:45		Nov-20-07 08:30		Nov-20-07 08:30		Nov-20-07 08.30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		255	5.00	234	5.00	277	5.00	170	5.00	128	5.00	43.4	5.11

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 293280

Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron Lovington Paddock Unit #7

Project Id: 1107-007B
Contact: Cindy Crain
Project Location: Sec. 25, T16S, R36E, Lea Co., NM

Date Received in Lab: Sat Nov-17-07 11:39 am
Report Date: 27-NOV-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	293280-025		293280-026									
	Field Id:	BH-5 (15-17')		BH-5 (20-22')									
	Depth:	15-15 ft		20-22 ft									
	Matrix:	SOIL		SOIL									
	Sampled:	Nov-13-07 13:49		Nov-13-07 13:59									
Total Chloride by EPA 325.3	*Extracted:*												
	Analyzed:	Nov-20-07 08:30		Nov-20-07 08.30									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		21.3	5.00	42.5	5.00								

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280 **Project ID:** 1107-007B

Lab Batch #: 709244 **Sample:** 293280-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.4	100	96	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 709244 **Sample:** 293280-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	53.8	50.0	108	70-135	

Lab Batch #: 709244 **Sample:** 293280-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 709244 **Sample:** 293280-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	100	88	70-135	
o-Terphenyl	44.0	50.0	88	70-135	

Lab Batch #: 709244 **Sample:** 293280-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	52.6	50.0	105	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280 **Project ID:** 1107-007B

Lab Batch #: 709244 **Sample:** 293280-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	100	99	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 709244 **Sample:** 293280-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	48.8	50.0	98	70-135	

Lab Batch #: 709244 **Sample:** 293280-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	100	97	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 709244 **Sample:** 293280-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	50.6	50.0	101	70-135	

Lab Batch #: 709244 **Sample:** 293280-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.0	100	92	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280 **Project ID:** 1107-007B

Lab Batch #: 709244 **Sample:** 293280-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	100	96	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 709244 **Sample:** 293280-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.4	100	94	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 709244 **Sample:** 501860-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 709244 **Sample:** 501860-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

Lab Batch #: 709244 **Sample:** 501860-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	49.8	50.0	100	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280 **Project ID:** 1107-007B

Lab Batch #: 708891 **Sample:** 708891-1-BKS **Matrix:** Solid
Date Analyzed: 11/20/2007 **Date Prepared:** 11/20/2007 **Analyst:** IRO
Reporting Units: mg/kg **Batch #:** 1

Total Chloride by EPA 325.3 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	100	91.5	92	75-125	

Lab Batch #: 708892 **Sample:** 708892-1-BKS **Matrix:** Solid
Date Analyzed: 11/20/2007 **Date Prepared:** 11/20/2007 **Analyst:** IRO
Reporting Units: mg/kg **Batch #:** 1

Total Chloride by EPA 325.3 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	100	93.6	94	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280 **Project ID:** 1107-007B

Analyst: SHE **Date Prepared:** 11/20/2007 **Date Analyzed:** 11/25/2007

Lab Batch ID: 709244 **Sample:** 501860-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	929	93	1000	911	91	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	814	81	1000	827	83	2	70-135	35	

Relative Percent Difference RPD = 200*|(D-F)/(D+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Chevron Lovington Paddock Unit #7

Work Order # 293280 **Project ID:** 1107-007B

Lab Batch ID: 709244 **QC- Sample ID:** 293280-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/25/2007 **Date Prepared:** 11/20/2007 **Analyst:** SHE

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1110	1070	96	1110	1140	103	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1110	1010	91	1110	1080	97	6	70-135	35	

Lab Batch ID: 708891 **QC- Sample ID:** 293280-004 S **Batch #:** 1 **Matrix:** Sludge

Date Analyzed: 11/20/2007 **Date Prepared:** 11/20/2007 **Analyst:** IRO

Reporting Units: mg/kg

Total Chloride by EPA 325.3 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	42.5	1000	1020	98	1000	1020	98	0	75-125	30	

Lab Batch ID: 708892 **QC- Sample ID:** 293280-017 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/20/2007 **Date Prepared:** 11/20/2007 **Analyst:** IRO

Reporting Units: mg/kg

Total Chloride by EPA 325.3 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	128	1000	1060	93	1000	1110	98	5	75-125	30	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected. J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Chevron Lovington Paddock Unit #7

Work Order #: 293280

Lab Batch #: 708845 **Project ID:** 1107-007B

Date Analyzed: 11/19/2007 **Date Prepared:** 11/19/2007 **Analyst:** RBA

QC- Sample ID: 293203-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.34	1.20	11	20	

Lab Batch #: 708848

Date Analyzed: 11/19/2007 **Date Prepared:** 11/19/2007 **Analyst:** RBA

QC- Sample ID: 293280-022 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.62	2.99	13	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Cindy Crain
Company Name: Ocotillo Environmental, LLC
Company Address: PO Box 1816
City/State/Zip: Hobbs, NM 88241
Telephone No: (505) 441-7244 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy crain@gmail com

Project Name: Chevron Lovington Paddock Unit #7
Project #: 1107-007B
Project Loc: Sec. 25, T16S, R36E, Lea Co., NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 293280

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW-Drinking Water SL=Sludge / GW - Groundwater S=Soil/Solid / NP-Non-Potable Specify Other	Analyze For: TCLP: TPH 418.1 (8015B)	TOTAL: TPH 8015B	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	NORM	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
001	BH-1 (5-7')	5	7	11/13/07	0942												X													
002	" (10-12')	10	12	"	0952												X													
003	" (15-17')	15	17	"	0958																									
004	" (20-22')	20	22	"	1002																									
005	BH-2 (0-2')	0	2	"	1017												X													
006	" (5-7')	5	7	"	1025												X													
007	" (10-12')	10	12	"	1030																									
008	" (15-17')	15	17	"	1035																									
009	" (20-22')	20	22	"	1040																									
010	" (25-27')	25	27	"	1049																									

Special Instructions:

Relinquished by:	Date	Time	Received by	Date	Time
Cindy Crain	11/17/07				
Relinquished by:	Date	Time	Received by	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Jessica Garcia	11/17/07	11:39

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) id on lid
Custody seals on container(s)
Custody seals on cooler(s)
Sample Hand Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt 4 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Cindy Crain
Company Name: Ocotillo Environmental, LLC
Company Address: PO Box 1816
City/State/Zip: Hobbs, NM 88241
Telephone No: (505) 441-7244 Fax No: (432) 272-0304
Sampler Signature: Cindy Crain e-mail: cindy.crain@gmail.com

Project Name: Chevron Lovington Paddock Unit #7
Project #: 1107-0076
Project Loc: Sec 25, T16S, R36E, Lea Co., NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 293280

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP TOTAL: TPH 418.1	8015M	8015B	TPH TX 1005	TPH TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
011	BH-3 (0-2')	0	2	11/13/07	1212												X															
012	" (5-7')	5	7	"	1220												X															
013	" (10-12')	10	12	"	1225																											
014	" (15-17')	15	17	"	1230																											
015	" (20-22')	20	22	"	1235																											
016	" (25-27')	25	27	"	1243																											
017	" (30-32')	30	32	"	1251																											
018	BH-4 (0-2')	0	2	"	1308												X															
019	" (5-7')	5	7	"	1315												X															
020	" (10-12')	10	12	"	1321																											

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
Cindy Crain	11/17/07				
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) id only Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand-Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 4.0 °C

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Cindy Crain
Company Name: Ocotillo Environmental, LLC
Company Address: PO Box 1816
City/State/Zip: Hobbs, NM 88241
Telephone No: (505) 441-7244
Fax No: (432) 272-0304
Sampler Signature: Cindy Crain
e-mail: cindy crain@gmail.com

Project Name: Chevron Lovington Paddock Unit #7
Project #: 1107-007B
Project Loc: Sec. 25, T16S, R36E, Lea Co., NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 293280

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers (4oz glass)	Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	TPH: 418.1 (8015M) 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	(Anions) (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.					RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
021	BH-4 (15-17')	15	17	11/13/07	1328																														
022	BH-5 (0-2')	0	2	"	1335														X																
023	" (5-7')	5	7	"	1343														X																
024	" (10-12')	10	12	"	1350																														
025	" (15-17')	15	17	"	1349																														
026	" (20-22')	20	22	"	1359																														

Analyze For: TCLP: / TOTAL:

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Cindy Crain	11/17/07				
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s) id on lid	Y	(N)
Custody seals on container(s)	Y	(N)
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by (Sampler)/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: 4.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Oxbow

Date/ Time: 11-17-07 @ 1139

Lab ID #: 293280

Initials: JMF

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	4.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	(ID written on Cont. Lid)	
#9	Container label(s) legible and intact?	Yes	No	(Not Applicable)	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

C141 DOCUMENTATION

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

X Initial Report Final Report

Name of Company Chevron Midcontinent LP	Contact Larry Ridenour
Address HCR 60 Box 423 Lovington, N.M. 88260	Telephone No. 505-396-4414 X 102
Facility Name Lovington Paddock Unit #7	Facility Type Injection line

Surface Owner City of Lovington	Mineral Owner State of NM	Lease No. 9077-2

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the		Feet from the		County
P	25	16S	36E	330	South Line	330	East Line	Lea

Latitude N 32 deg 53 min 12.85 sec **Longitude** W 103 deg 18 min 1.02 sec
API #30-025-03747

WTR65'

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 20 BW	Volume Recovered 15 bbl fluids.
Source of Release injection line	Date and Hour of Occurrence 09/26/07 7:15 AM	Date and Hour of Discovery 09/26/07 7:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Larry Ridenour	Date and Hour 9/27/2007 10:25 AM.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

OCT 2007 Received Hobbs OCD

Describe Cause of Problem and Remedial Action Taken.*
Fiberglass line parted in collar. Leak detected by SCADA system and was shut in very shortly thereafter. Roustabout gang was dispatched with enviro vat to pick up standing water. Picked up 15 bbls of water total. Estimate total spill at 20 bbls water with skim of oil. Emergency one call was done and contaminated dirt removal began on 9/27/07.
Chlorides 35,300

Describe Area Affected and Cleanup Action Taken.*
Affected area is approximately 100' diameter circle. Leak has been turned over to Ocotillo Environmental for delineation, evaluation, and formulation of remediation plan to be approved by Chevron and NMOCD.

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: Larry D Ridenour	OIL CONSERVATION DIVISION
Printed Name: Larry Ridenour	Approved by District Supervisor: G Johnson ENVIRONMENTAL ENGINEER
Title: Operations Representative	Approval Date: 10-3-07 Expiration Date: 12-3-07
E-mail Address LRidenour@chevron.com	Conditions of Approval: SUBMIT FINAL C-141 w/ SUPPORTING DOCUMENTATION Attached ☐
Date: 10/01//2007 Phone: 396-4414 X 102	

* Attach Additional Sheets If Necessary

RP#1604