

Ocotillo ENVIRONMENTAL

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

RECEIVED

January 24, 2008

JAN 30 2008

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

HOBBS OCD

**Re: Spill Remediation Report, 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. A Spill Remediation Workplan was submitted to the NMOCD on December 10, 2007, and approval was granted on December 14, 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

*OK to
Close
Chris Williams
1/30/08
RP# 1604*

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 in order to assess the horizontal and vertical limits of the spill. Soil had been previously scraped from the surface of the spill area to a depth of approximately one foot below ground surface (bgs) and stockpiled on site. Figure 2 shows the locations of the soil borings.

As reported in the Spill Remediation Workplan, TPH concentrations in all samples were 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 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.

Remediation Activities

On January 14, 2008, a soil sample was collected from the present surface (1 foot bgs) in the area of boring BH-1, and submitted to Cardinal Laboratory (Cardinal) for chloride analysis. The laboratory reported a chloride concentration of 4,480 mg/kg. On January 15, 2008, Ocotillo began excavation of the impacted soil in the vicinity of boring BH-2. Soil was excavated to a depth of approximately 2.5 to 3 feet bgs until soil samples were collected from the bottom (SS-1, SS-2 and SS-3) and sides (N Comp, S Comp, and E Comp) of the excavation for laboratory analysis of chlorides. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix A provides a copy of the laboratory reports and chain of custody documentation.

Referring to Table 1, soil samples collected from the bottom (SS-1, SS-2 and SS-3), north (N Comp), and east (E Comp) sides reported chloride concentrations above 250 mg/kg. Excavation continued in the vicinity of boring BH-2 on January 16, 2008, until confirmation samples were collected from the bottom (SS-4, SS-5 and SS-6), north and east sides of the excavation. Soil was also excavated from the area of boring BH-1 to a depth of approximately 2 feet bgs until a confirmation sample was collected. All samples were delivered to Cardinal for laboratory analysis of chlorides. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix A provides a copy of the laboratory reports and chain of custody documentation.

Referring to Table 1, final samples collected from the area of borings BH-1 and BH-2 reported chloride concentrations below 250 mg/kg.

All stockpiled and newly excavated soil (approximately 360 yards) was removed from the site to an NMOCD approved disposal facility. The excavation was backfilled with soil from the New Mexico State Pit #294.

Mr. Larry Johnson
Page 3
January 24, 2008

Chevron respectfully requests that the Lovington Paddock #7 site be closed by the NMOCD. A final C141 form is attached as the last page of this report.

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.

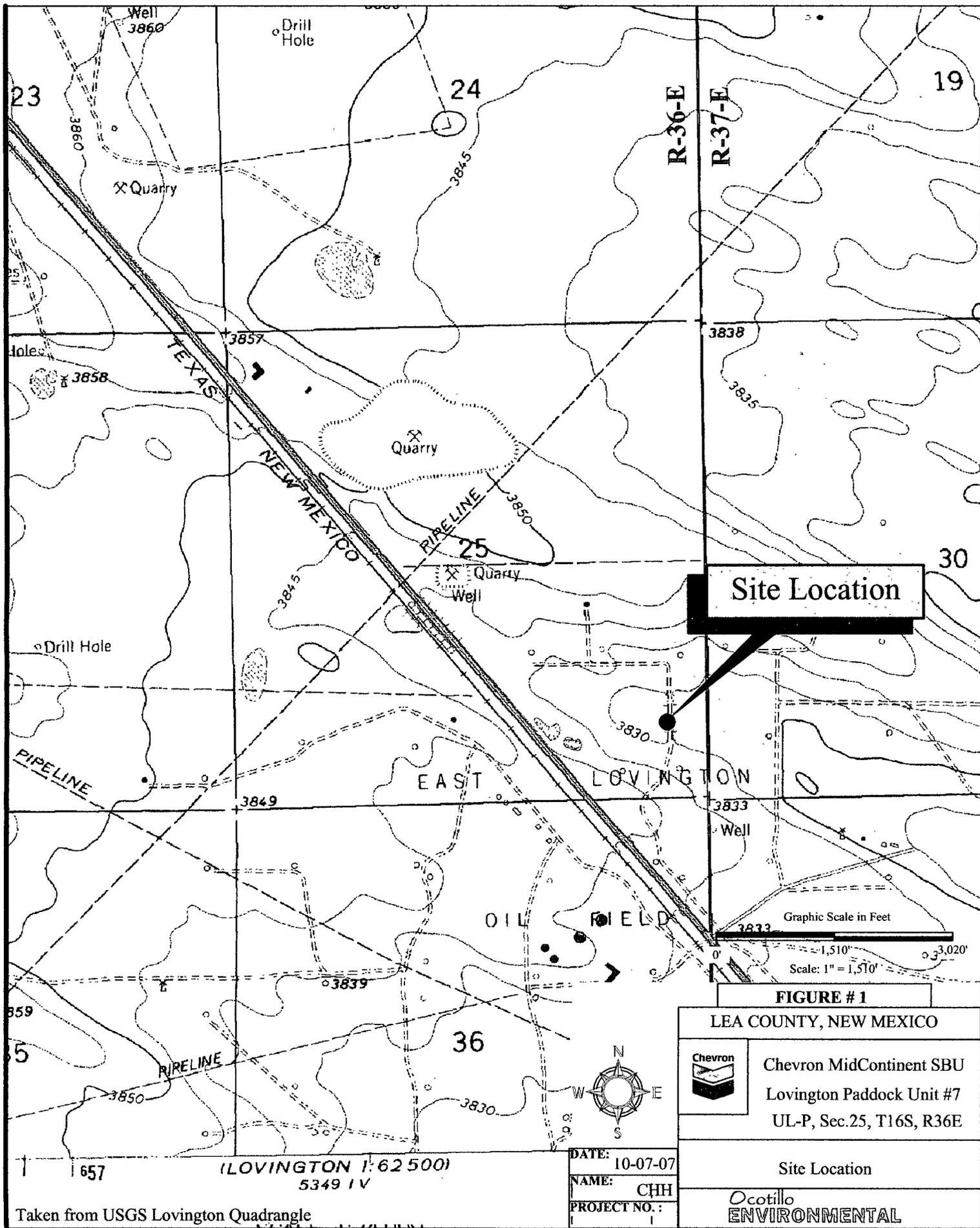
Sincerely,
Ocotillo Environmental, LLC

A handwritten signature in black ink that reads "Cindy K. Crain". The signature is written in a cursive style with a large initial "C".

Cindy K. Crain, P.G.
Environmental Manager

cc: Larry Ridenour, Chevron

FIGURES



Site Location

FIGURE # 1

LEA COUNTY, NEW MEXICO



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

Site Location

Ocotillo
 ENVIRONMENTAL

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

Taken from USGS Lovington Quadrangle

(LOVINGTON 1:62 500)
 5349 IV

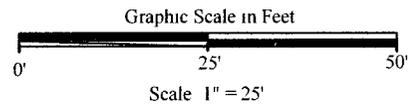
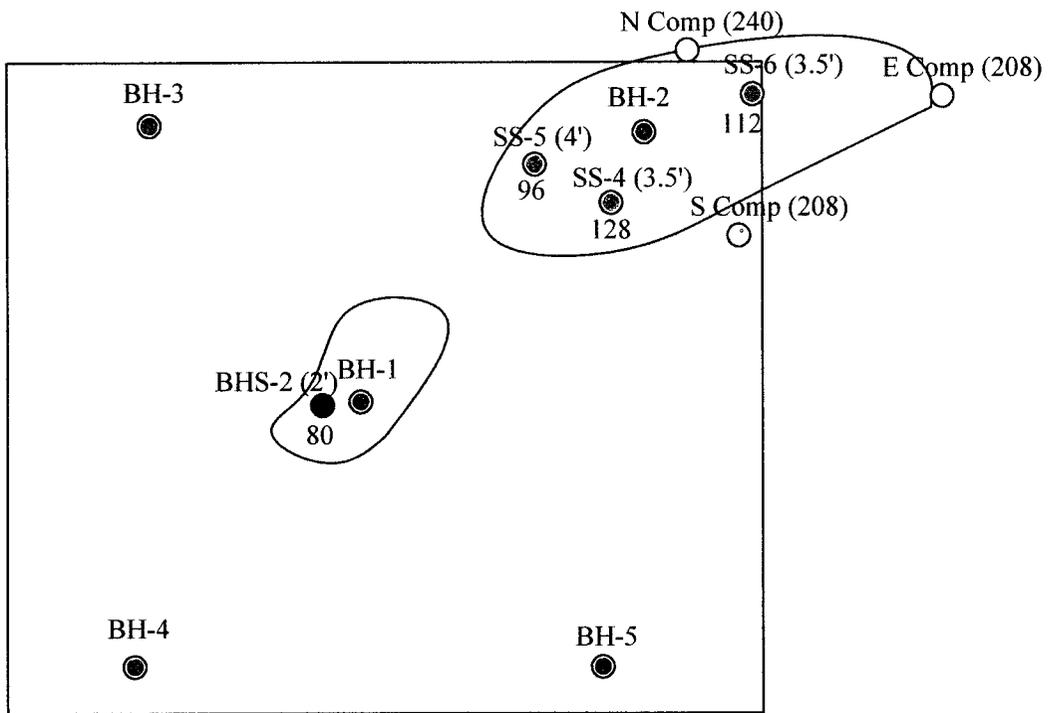


Figure # 2

LEA COUNTY, NEW MEXICO



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

Site Drawing With Soil Boring and Sample Locations

Ocotillo
ENVIRONMENTAL

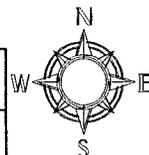
LEGEND

Soil Boring Location

SS-1 Soil Sample Location with (3,5') depth (feet) and Chloride concentration (mg/kg)
128

Spill Area Boundary

Excavation Area



DATE: 1-28-08

NAME: MAC

PROJECT NO.: 1107-007B

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
1/14/08	BH-1	1	---	---	---	---	4,480.0
1/16/08	BHS-2	2	---	---	---	---	80.0
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
11/13/07	BH-2	0-2	<16.1	61.6	<16.1	61.6	3,200.0
1/15/08	SS-1	2.5	---	---	---	---	528.0
1/16/08	SS-4	3.5	---	---	---	---	128.0
1/15/08	SS-2	3	---	---	---	---	464.0
1/16/08	SS-5	4	---	---	---	---	96.0
1/15/08	SS-3	2.5	---	---	---	---	416.0
1/16/08	SS-6	3.5	---	---	---	---	112.0
1/15/08	N Wall Comp	---	---	---	---	---	560.0
1/16/08	N Wall Comp	---	---	---	---	---	240.0
1/15/08	S Wall Comp	---	---	---	---	---	208.0
1/15/08	E Wall Comp	---	---	---	---	---	928.0
1/16/08	E Wall Comp	---	---	---	---	---	208.0
11/13/07		5-7	<16.5	<16.5	<16.5	<49.5	234.0
11/13/07		10-12	---	---	---	---	191.0
11/13/07		15-17	---	---	---	---	128.0
11/13/07		20-22	---	---	---	---	63.8
11/13/07		25-27	---	---	---	---	42.5
11/13/07	BH-3	0-2	<15.9	75.3	44.1	119.4	67.7
11/13/07		5-7	<15.7	<15.7	<15.7	<47.1	223.0
11/13/07		10-12	---	---	---	---	255.0
11/13/07		15-17	---	---	---	---	234.0
11/13/07		20-22	---	---	---	---	277.0
11/13/07		25-27	---	---	---	---	170.0
11/13/07		30-32	---	---	---	---	128.0
11/13/07	BH-4	0-2	<15.3	<15.3	<15.3	<45.9	43.4
11/13/07		5-7	<15.3	<15.3	<15.3	<45.9	43.4
11/13/07		10-12	---	---	---	---	42.5
11/13/07		15-17	---	---	---	---	42.5
11/13/07	BH-5	0-2	<15.4	<15.4	<15.4	<46.2	65.5
11/13/07		5-7	<15.7	<15.7	<15.7	<47.1	44.4
11/13/07		10-12	---	---	---	---	21.3
11/13/07		15-17	---	---	---	---	21.3
11/13/07		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

**ANALYTICAL DATA AND CHAIN OF CUSTODY
DOCUMENTATION**



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Ocotillo Environmental LLC</u>		BILL TO				ANALYSIS REQUEST																																	
Project Manager: <u>Cindy Crain</u>		P.O. #:																																					
Address: <u>2125 French Dr.</u>		Company: <u>Ocotillo</u>																																					
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn:																																					
Phone #: <u>575-441-7244</u> Fax #: <u>432-272-0304</u>		Address:																																					
Project #: <u>1107-007B</u> Project Owner: <u>Chowen</u>		City:																																					
Project Name: <u>Loungston Paddock Unit #7</u>		State: Zip:																																					
Project Location: <u>Lea County NM</u>		Phone #:																																					
Sampler Name: <u>Steve Cannon</u>		Fax #:																																					
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING		<i>Chloride</i>																													
Lab I.D.		Sample I.D.		# CONTAINERS		GROUNDWATER		WASTEWATER														SOIL		OIL		SLUDGE		OTHER:		ACID/BASE		ICE / COOL		OTHER:		DATE		TIME	
<u>H14091-1</u>		<u>SS-1 @ 2.5'</u>		<u>3</u>																		<input checked="" type="checkbox"/>														<u>1-15-08</u>		<u>11:15</u>	
<u>-2</u>		<u>SS-2 @ 3'</u>		<u>4</u>																		<input checked="" type="checkbox"/>														<u>"</u>		<u>11:07</u>	
<u>-3</u>		<u>SS-3 @ 2.5'</u>		<u>3</u>																		<input checked="" type="checkbox"/>														<u>"</u>		<u>11:25</u>	
<u>-4</u>		<u>Northwell Comp S</u>		<u>4</u>																		<input checked="" type="checkbox"/>														<u>"</u>		<u>11:11</u>	
<u>-5</u>		<u>Southwell Comp S</u>		<u>4</u>																		<input checked="" type="checkbox"/>														<u>"</u>		<u>11:19</u>	
<u>-6</u>		<u>Eastwell Comp S</u>		<u>4</u>																		<input checked="" type="checkbox"/>														<u>"</u>		<u>11:28</u>	

PLEASE NOTE Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Steve Cannon</u>	Date: <u>1-15-07</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Time: <u>2:05 PM</u>			Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
Time:			<u>Fax # 432-272-0304</u>	
Delivered By: (Circle One)	Sample Condition	CHECKED BY:	<u>ASAP Please</u>	
Sampler - UPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No	(Initials) <u>[Signature]</u>		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Ocotillo Environmental</u>		BILL TO				ANALYSIS REQUEST																				
Project Manager: <u>Cindy Crain</u>		P.O. #:																								
Address: <u>2125 French Dr</u>		Company: <u>Ocotillo</u>																								
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn:																								
Phone #: <u>575-441-7244</u> Fax #: <u>432-272-0304</u>		Address:																								
Project #: <u>1107-007 B</u> Project Owner: <u>Chevron</u>		City:																								
Project Name: <u>Livingston Paddock Unit #7</u>		State: Zip:																								
Project Location: <u>Lea County NM</u>		Phone #: Fax #:																								
Sampler Name: <u>Steve Cannon</u>		Fax #:																								
FOR LAB USE ONLY																										
Lab I.D.	Sample I.D.		(GRAB OR (C)OMP # CONTAINERS)	MATRIX					PRESERV			SAMPLING		<i>Chloride</i>												
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE	ICE / COOL	OTHER :	DATE													TIME
<u>H14098B1</u>	<u>55-4 @ 3.5'</u>		<u>A</u>			<u>✓</u>							<u>1-16-07</u>													<u>11:31</u>
<u>-2</u>	<u>55-5 @ 4'</u>		<u>A</u>			<u>✓</u>							<u>"</u>													<u>11:36</u>
<u>-3</u>	<u>55-6 @ 35'</u>		<u>A</u>			<u>✓</u>							<u>"</u>													<u>11:42</u>
<u>-4</u>	<u>Camp 5 North Wall</u>		<u>A</u>			<u>✓</u>							<u>"</u>													<u>11:44</u>
<u>ASAP -5</u>	<u>Camp 5 ^{EAST} South Wall</u>		<u>A</u>			<u>✓</u>							<u>"</u>													<u>11:52</u>
<u>-6</u>	<u>BH5 #2</u>		<u>A</u>			<u>✓</u>							<u>"</u>	<u>11:23</u>												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Steve Cannon</u>		Date: <u>1-16-07</u>		Received By: <u>Hope I. M. Wene</u>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:	
		Time: <u>1:30 PM</u>				Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:	
		Time:				<u>Fax # 432-272-0304</u> <u>ASAP Please</u>	
Delivered By: (Circle One)		Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		(Initials) <u>AS</u>		<u>NOTE: Talked to Cindy about CUC & sample id not matching. She said the sample id was correct & gave me permission to change CUC. 01-16-07</u>	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

Initial Report Final Report

Name of Company	Chevron Midcontinent LP	Contact	Larry Ridenour
Address	HCR 60 Box 423 Lovington, NM 88260	Telephone No	(505) 396-4414 x 102
Facility Name	Lovington Paddock #7	Facility Type	Injection Line
Surface Owner:	City of Lovington	Mineral Owner:	State of NM
		Lease No.	9077-2
		IRP #	1604
		API #	30-025-03747

LOCATION OF RELEASE

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

Latitude N 32 deg. 53 min. 12.85 sec. Longitude W 103 deg. 18 min. 1.02 sec.

NATURE OF RELEASE

Type of Release ¹	Produced Water	Volume of Release	20 BW	Volume Recovered	15 bbl fluids
Source of Release	Injection line	Date and Hour of Occurrence	9/26/07 7:15 AM	Date and Hour of Discovery	9/26/07 7:30 AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Pat Caperton		
By Whom?	Larry Ridenour	Date and Hour	9/27/07 10:25 AM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse			

If a Watercourse was Impacted, Describe Fully.*

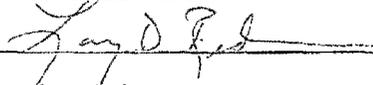
Describe Cause of Problem and Remedial Action Taken.*

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.*

An area approximately 100' x 80' was excavated to a depth of one to two feet bgs. Soil borings were installed in order to assess the horizontal and vertical limits of the spill. Additional soil was excavated at the center and northeast portions of the site until confirmation samples reported all chloride and TPH concentrations below the New Mexico clean up standards. Impacted soil was hauled to an NMOCD approved disposal facility, and the area was backfilled with clean soil from the State of New Mexico pit #294.

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 Ridenour	Approved by District Supervisor:	
Title:	Operations Representative	Approval Date:	1/30/08
E-mail Address:	Lridenour@chevron.com	Expiration Date:	1/30/08
Date:	1/24/08	Conditions of Approval:	Attached <input type="checkbox"/>
Phone:	(505) 396-4414 x 102		

* Attach Additional Sheets If Necessary