

AP - 056

**GENERAL
CORRESPONDENCE**

YEAR(S):

2006 - 2007



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

FEBRUARY 12, 2007

Mr. Steve Huddleson
Chevron Environmental Management Company
11111 S. Wilcrest
Houston, Texas 77099

**RE: STAGE 1 ABATEMENT PLAN - MARK OWEN NO. 9 RESERVE PIT
SECTION 34, TOWNSHIP 21 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO
ADMINISTRATIVE COMPLETENESS DETERMINATION
AP056**

Dear Mr. Huddleson:

The New Mexico Oil Conservation Division (OCD) has completed its administrative review of the *Stage 1 Abatement Plan - Chevron U.S.A., Inc. - Mark Owen #9 Reserve Pit*, submitted on September 11, 2006, by Conestoga-Rovers & Associates on behalf of Chevron Environmental Management Company (CEMC). OCD has determined that the proposed Stage 1 Abatement Plan (Stage 1 AP) is not administratively complete and therefore, CEMC must revise and resubmit it by March 16, 2007.

OCD has identified three major issues that CEMC must address when it revises its Stage 1 AP. First, CEMC must completely define the extent of the vadose zone contamination as well as any ground water contamination. Second, it must revise the Stage 1 AP with the understanding that pit closure activities will not be addressed in accordance with OCD's pit closure guidance, but rather during the Stage 2 (remediation/closure) of the Abatement Plan, pursuant to OCD Rule 19. OCD's pit closure guidance is only appropriate for sites at which a release has not occurred. Third, CEMC appears to be confused about soil cleanup standards for chlorides. The Water Quality Control Commission numerical ground water protection standards specified at 20.6.2.3103 NMAC apply only to ground water – not to soil. OCD's 1993 guidance (*Guidelines for Remediation of Leaks, Spills and Releases*) does not specify a soil cleanup standard for chlorides.

Vadose Zone Contamination OCD Rule 19B(1) specifies that "*The vadose zone shall be abated so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water*" Given that vadose zone (i.e., soil) standards are general performance standards rather than numerical standards, OCD requires operators to completely define the extent of any vadose zone contamination before making a site-specific determination as to how much vadose zone remediation is required to ensure that ground water will not be impacted by continued releases. At sites where ground water has been impacted by a release, OCD generally requires that the source be removed whenever possible.

OCD Rule 19E(3) specifies that the investigatory work proposed by the responsible person in a Stage 1 AP must adequately define the site conditions and provide the data necessary to select and design an effective abatement option. Section 3.0 of the Stage 1 AP states that CEMC will not conduct additional site investigation activities, such as a soil boring program. However, CEMC has not yet delineated the full extent of the soil contamination beneath the drill pit; therefore, CEMC must revise Section 3.0 to include a soil boring program as well as a ground water monitoring program. CEMC must install a sufficient number of soil borings to delineate the vadose zone contamination and must justify the proposed locations of soil borings and monitor wells based on contour maps and cross sections using all available data. CEMC did not justify its interpretation of the site conditions by providing cross sections in either its proposed Stage 1 Abatement Plan or its Attachment A (2006 EPI Report). CEMC did provide one contour map at the 19-foot bgs interval. This map is based only on four soil borings and it is not clear why the other borings were not advanced deeper.

OCD suggests that CEMC re-title Section 3.0 as "Site Investigation Work Plan" to conform with OCD Rule 19E(3)(b).

Remediation/Closure Section 3.3 indicates that residual chloride-impacted soils will be addressed in accordance with OCD's 2004 *Pit or Below-Grade Tank Guidelines*. However, following that guidance is only appropriate "...if the liner has maintained its integrity." OCD's pit guidance also states that releases from pits must be remediated in accordance with its 1993 "*Guidelines For Remediation Of Leaks, Spills And Releases*." Operators are required to comply with the release reporting requirements of OCD Rule 116. Please note that any detrimental impact to ground water is a major release. Corrective action for releases must be addressed in accordance with an abatement plan pursuant to OCD Rule 19.

Soil Cleanup Standard For Chlorides As noted above, OCD does not have numerical cleanup standards for soil. OCD's 1993 guidelines provide recommended remediation action levels for soils contaminated with petroleum hydrocarbons. OCD's guidelines note that soils contaminated with substances other than petroleum hydrocarbons (e.g., chlorides) may be required to be remediated based upon the nature of the contaminant and its potential to impact fresh waters, public health, and the environment. Given the shallow depth to ground water and

the fact that ground water has already been contaminated at concentrations that exceed the WQCC ground water protection standards, OCD may require removal of all remaining chloride contamination soil and bedrock.

OCD has several other issues with CEMC's Stage 1 AP that it would normally address during the technical review, but is briefly discussing them now to minimize the need for additional revisions.

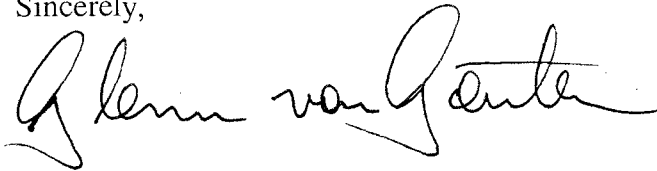
1. Section 1.1 provides a statement of the purpose of the Stage 1 AP that differs from OCD Rule 19E(3). CEMC should revise this section accordingly.
2. Neither Section 2.3 nor Appendix A provide sufficient details on the drilling pit, such as the size of the drill pit, dates of operations, the volume and composition of drilling fluids used, the extent of contamination in the vadose zone and in ground water, the volume of soil excavated, disposed, or stored, *etc.* CEMC should revise this section accordingly.
3. Section 2.5 refers to "two clean soil stockpiles." CEMC should specify what the average chlorides concentration is at each stockpile and how this was determined.
4. Section 3.1.1 specifies on page 7 that soil samples will be collected in 5-foot intervals. However, on page 8, 10-foot intervals for analysis are specified. CEMC should review this section for consistency.
5. Section 3.1.2 indicates that monitor wells will be drilled and completed in accordance with the Office of the State Engineer's specifications. CEMC should follow OCD's 1993 guidelines for monitor well construction.
6. Section 3.2 indicates that CEMC will handle drill cuttings by either disposal at an OCD permitted facility or by thin-spreading on-site. OCD will not approve "thin-spreading" on-site of chlorides contaminated drill cuttings.

CEMC shall submit two paper copies and an electronic copy of its revised Stage 1 Abatement Plan to OCD's Santa Fe office by March 16, 2007, with a copy provided to the OCD Hobbs District Office.

Mr. Steve Huddleson
February 12, 2007
Page 4

If you have any questions, please contact me at 505-476-3488.

Sincerely,

A handwritten signature in black ink that reads "Glenn von Gonten". The signature is fluid and cursive, with the first name "Glenn" being the most prominent part.

Glenn von Gonten
Senior Hydrologist

cc: Mr. Larry Johnson, OCD Hobbs District Office



**CONESTOGA-ROVERS
& ASSOCIATES**

2135 S. Loop 250 West
Midland, Texas 79703
Telephone: (432) 686-0086 Fax: (432) 686-0186
<http://www.craworld.com>

January 11, 2007

Reference No. 046121

Mr. Glenn VonGonten
NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

**Re: Stage I Abatement Plan
Mark Owen #9 Reserve Pit
Lea County, NM**

Dear Mr. VonGonten:

Per your request, enclosed is a copy of the Stage I Abatement Plan Mark Owen #9 Reserve Pit on CD.
Should you need anything further, please contact me at 432-686-0086.

Sincerely,

Conestoga-Rovers & Associates, Inc.

Tom Larson
Operations Manager

Equal
Employment Opportunity
Employer

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Thursday, May 25, 2006 1:52 PM
To: 'Huddleson, Steven M (SHuddleson)'
Cc: Williams, Larry (LCWL); Hall, Keith (Keith.Hall)
Subject: RE: Mark Owen No 9 Well (AP-56)

OCD hereby grants a 90 day extension.

From: Huddleson, Steven M (SHuddleson) [mailto:SHuddleson@chevron.com]
Sent: Thursday, May 25, 2006 1:30 PM
To: Price, Wayne, EMNRD
Cc: Williams, Larry (LCWL); Hall, Keith (Keith.Hall)
Subject: Mark Owen No 9 Well (AP-56)
Importance: High

Mr. Price.

The referenced project has been referred to my attention by Mr. Larry Williams of Chevron Operations. I have been assigned as the project manager for the environmental investigation of this property and should be the recipient of all future correspondence relating to its investigation. I have received a copy of your communication of May 19 requesting the submittal of an abatement plan pursuant to NMOCD Rule 19 within 30 days. Chevron respectfully requests an extension of time for the preparation and submittal of that plan. This is to allow an opportunity for me to become familiar with the project and to allow a transition from the current environmental contractor (Environmental Plus, Inc.) to one of Chevron Environmental Management Company's national alliance suppliers.

I look forward to working with you on this project. Please do not hesitate to contact me at any time if you have questions or comments. Your consideration of this request is greatly appreciated.

Please give my best wishes to Jack Ford on his retirement.. The lucky dog..

Steve Huddleson, P.G., C.P.G.
Sr. Environmental Project Manager
Chevron Environmental Management Company
11,111 S. Wilcrest
Houston, TX 77099

281-561-4995 Office
832-771-3275 Cellular

5/25/2006



ENVIRONMENTAL PLUS, INC.

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May 19, 2006

Mr. Wayne Price
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Notification of Groundwater Impact
Chevron USA (O-Grid #4323)
Mark Owen #9 Pit (Ref. #200056)
UL-J of Section 34, T21S, R37E
Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference *Figure 1*) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and submitted to you for approval. All official communication should be sent to:

ENVIRONMENTAL PLUS, INC.



ENVIRONMENTAL PLUS, INC.

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Chevron USA
Mr. Larry Williams
P.O. Box 1249
2401 Avenue O
Eunice, New Mexico 88231
Telephone: (505) 394-1237
e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

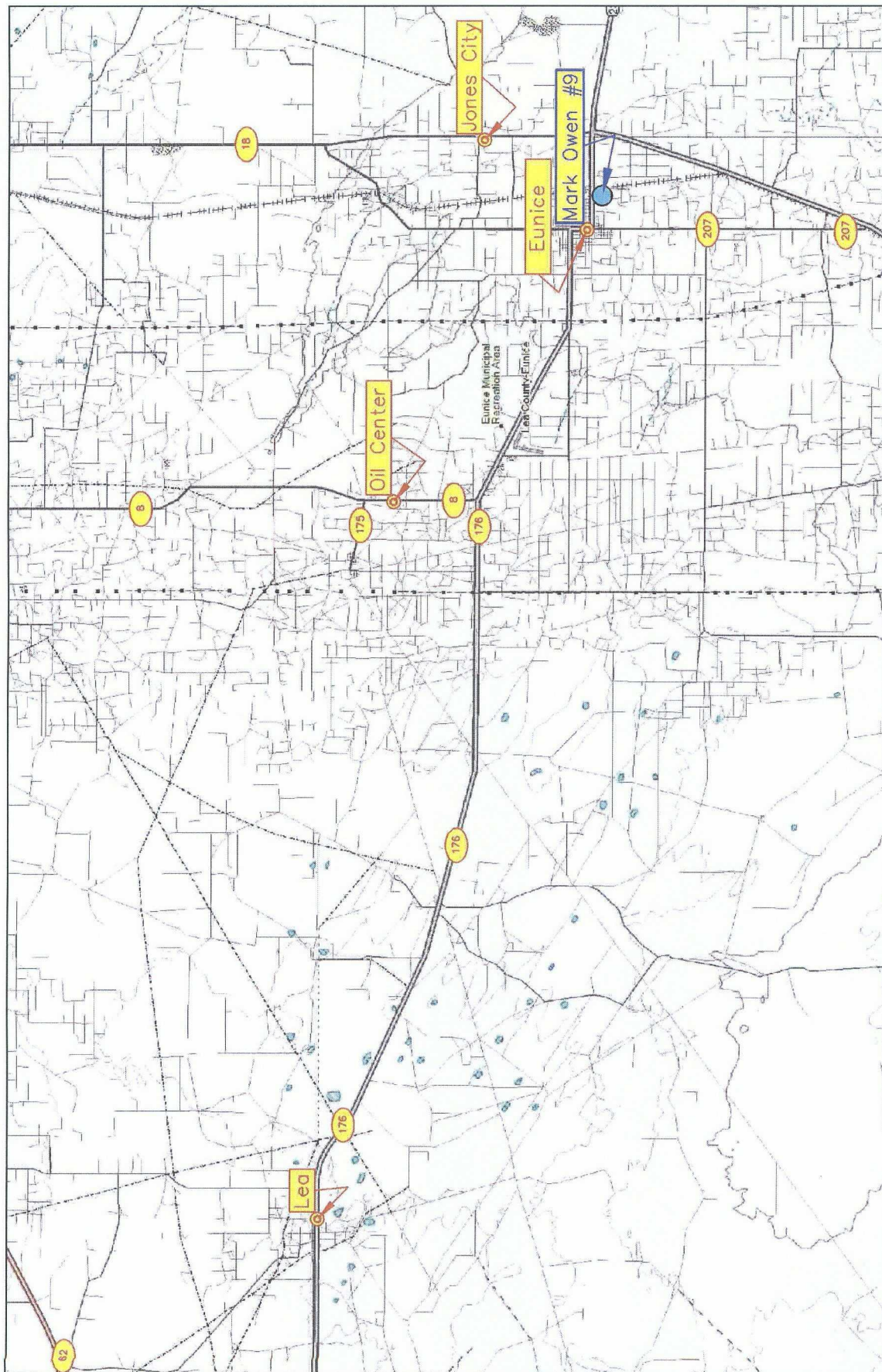
Pat McCasland
EPI Senior Consultant

cc: Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)
Larry Williams, Chevron (LCWL@Chevron.com)
Nathan Mouser, Chevron (NVMO@Chevron.com)
file

Enclosures:

Figure 1
Laboratory Report

ENVIRONMENTAL PLUS, INC.



<p>Figure 1 Area Map Chevron Corporation Mark Owen #9</p>	<p>Lea County, New Mexico NW 1/4 of the SE 1/4, Sec. 34, T21S, R37E N 32° 25' 56.9" W 103° 08' 47.9" Elevation: 3,405 feet amsl</p>		<p>DWG By: Daniel Dominguez November 2005</p>	<p>REVISED:</p>	
			<p>0 3 6 Miles</p>	<p>6 SHEET 1 of 1</p>	



ARDINAL LABORATORIES

PHONE (325) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC.

ATTN: PAT McCASLAND

P.O. BOX 1558

EUNICE, NM 88231

FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/03/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)
ANALYSIS DATE:		05/05/06	05/05/06
H11087-11	TMW3-10'	246	6478
H11087-12	TMW3-13'	124	5678
H11087-13	TMW3-18'	116	4447
H11087-14	TMW3-23'	161	6830
H11087-15	TMW3-28'	59.2	1711
H11087-16	TMW3	240	9697
Quality Control		27.3	960
True Value QC		25.0	1000
% Recovery		109.0	96
Relative Percent Difference		1.6	3.0
METHODS: EPA 600/4-79-020		375.4	SM 4500 Cl'B

NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Analyst

05-09-06
Date

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 client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. Cardinal shall not 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.



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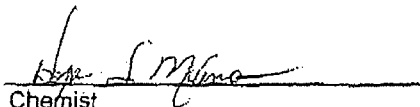
ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/09/06
Project Owner: CHEVRON USA (#200056)
Project Name: MARK OWEN #9 PIT
Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06
Sample Type: SOIL & WATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)	
ANALYSIS DATE:		05/05/06	05/05/06	
H11087-1	TMW1-5'	< 1	16	Soil
H11087-2	TMW1-20'	27.3	16	
H11087-3	TMW1-35'	58.8	32	Water
H11087-4	TMW1	181	80	
H11087-5	TMW2-5'	128	48	Soil
H11087-6	TMW2-20'	< 1	176	
H11087-7	TMW2-35'	54.2	128	Water
H11087-8	TMW2	116	80	
H11087-9	SB3-5'	27.3	16	Soil
H11087-10	SB3-30'	277	16	
Quality Control		27.3	960	
True Value QC		25.0	1000	
% Recovery		109.0	96	
Relative Percent Difference		1.6	3.0	
METHODS: EPA 600/4-79-020		375.4	SM 4500 ClB	

NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

05-04-06
Date

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ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/08/06
Project Owner: CHEVRON USA (#20056)
Project Name: MARK OWEN #9 PIT
Project Location: NOT GIVEN

Sampling Date: 05/01, 05/02, & 05/03/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		05/05/06	05/05/06	05/05/06	05/05/06
H11087-4	TMW1	<0.002	<0.002	<0.002	<0.006
H11087-8	TMW2	<0.002	<0.002	<0.002	<0.006
H11087-16	TMW3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.094	0.092	0.093	0.294
True Value QC		0.100	0.100	0.100	0.300
% Recovery		94.4	92.0	93.4	97.9
Relative Percent Difference		1.3	0.4	1.9	3.0

Water

METHOD: EPA SW-846 8260

Thurston J. Corbe
Chemist

5/8/06
Date

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 client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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.



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PHONE (505) 383-2326 • 101 E MARLAND • HOBBS, NM 88240

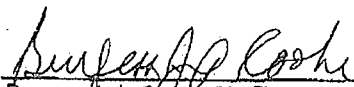
ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/10/06
Project Owner: CHEVRON TEXACO (#200056)
Project Name: MARK OWENS #9 PIT
Project Location: NOT GIVEN

Sampling Date: 04/28, 05/02, & 05/03/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (C ₁₀ -C ₂₀) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06
H11087-2	TMW1-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-6	TMW2-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-12	TMW3-13'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-14	TMW3-23'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		553	517	0.095	0.092	0.092	0.277
True Value QC		500	500	0.100	0.100	0.100	0.300
% Recovery		111	103	95.0	92.4	92.0	92.3
Relative Percent Difference		5.8	9.0	0.6	0.5	1.6	6.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.


Burgess J. A. Cooke, Ph. D.

5/10/06
Date

H11087A

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 client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (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.


Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

1 of 2

Company Name		Environmental Plus, Inc.	
EPI Project Manager	Pat McCasland		
Billing 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	Mark Owen #9 Pñ		
Project Reference	#200056		
EPI Sampler Name	Geroge Blackburn		

 Chevron USA P.O. Box 1949 Eunice, NM 88231 Attention: Mr. Larry Williams	
--	--

LAB.I.D.	SAMPLE I.D.	MATRIX			PRESERV.				SAMPLING		BTEX 8021B	TPH 8015M	CHLORIDES (CI)	SULFATES (SO ₄)	PH	TCLP	OTHER VV	
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER								DATE
110877 - 1	TMW1-5'	G 1		X						4/28/06	11:47			X				
- 2	TMW1-20'	G 1		X						4/28/06	11:58	X	X	X				
- 3	TMW1-35'	G 1		X						4/28/06	12:21			X				
- 4	TMW1	G 3	X							5/1/06	9:00	X		X				
- 5	TMW2-5'	G 1		X						5/2/06	9:36			X				
- 6	TMW2-20'	G 1		X						5/2/06	9:51	X	X	X				
- 7	TMW2-35'	G 1		X						5/2/06	10:10			X				
- 8	TMW2	G 3	X							5/2/06	12:00	X		X				
- 9	SB3-5'	G 1		X						5/2/06	10:54			X				
- 10	SE3-30'	G 1		X						5/2/06	11:28			X				

Sampler Relinquished:	Date	5-04-06	Received By:
Relinquished by:	Time	4:26	Received By: (lab staff)
Delivered by:	Time	4:26	Checked By:
			Sample Cool & Intact
			Yes No

Fax Results To Pat McCasland - EPI @ 505-394-2601
REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.

Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax: 915-673-7020

2 of 2

Company Name	Environmental Plus, Inc.
EPI Project Manager	Pat McCasland
Billing 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	Mark Owen #9 Pit
Project Reference	#200056
EPI Sampler Name	Geroge Blackburn



Chevron USA
P. O. Box 1949
Eunice, NM 88231
Attention: Mr. Larry Williams

LAB I.D.	SAMPLE I.D.	MATRIX						PRESERV.			SAMPLING						OTHER >>>
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (CI)	SULFATES (SO ₄)	
H11087 - 11	TMW3-10'	G 1		X							5/3/06	4:42			X	X	
12	TMW3-13'	G 1		X							5/3/06	4:49	X	X	X	X	
13	TMW3-18'	G 1		X							5/3/06	4:59			X	X	
14	TMW3-23'	G 1		X							5/3/06	5:10	X	X	X	X	
15	TMW3-28'	G 1		X							5/3/06	5:20			X	X	
16	TMW3	G 3	X								5/3/06	6:00	X		X	X	
7																	
8																	
9																	
10																	

Sampler Relinquished:	Date	5-04-06	Received By:	
	Time			
Relinquished by:	Date	5-4-06	Received By: (lab stat)	
	Time	4:20		
Delivered by:	Sample Cool & Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Checked By:	

Fax Results To Pat McCasland - EPI @ 505-394-2601

REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, May 19, 2006 11:33 AM
To: 'Pat Mccasland'
Cc: Johnson, Larry, EMNRD; Sheeley, Paul, EMNRD; Larry Williams (Chevron); Nathan Mouser; 'Cody Miller'; 'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'Iain Olness'; 'Jason Stegemoller'; 'Roger Boone'
Subject: RE: Chevron Mark Owen #9 Notification of Groundwater Impact

Dear Mr. Williams and Mr. Mccasland:

You are hereby required to submit an abatement plan pursuant OCD rule 19 within 30 days. Your site has been assigned the abatement plan number AP-56. Please use this number on all future documents.

From: Pat Mccasland [mailto:pmccasland@envplus.net]
Sent: Friday, May 19, 2006 9:56 AM
To: Price, Wayne, EMNRD
Cc: Johnson, Larry, EMNRD; Sheeley, Paul, EMNRD; Larry Williams (Chevron); Nathan Mouser; 'Cody Miller'; 'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'Iain Olness'; 'Jason Stegemoller'; 'Roger Boone'
Subject: Chevron Mark Owen #9 Notification of Groundwater Impact

Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits the attached Notification of Groundwater Impact and supporting documentation for the Chevron Mark Owen #9 drill pit. Hard copies will follow.

If there are any questions or more information is needed, please feel free to call Iain Olness or me at 505.394.3481 or Larry Williams (Chevron) at 505.394.1237.

Sincerely,

Pat McCasland
Senior Consultant
Environmental Plus, Inc.
P.O. Box 1558
2100 Avenue O
Eunice, New Mexico 88231

Office: 505.394.3481
Cellular: 505.390.7864
FAX: 505.394.2601
address: pmccasland@envplus.net

5/19/2006

Price, Wayne, EMNRD

From: Pat Mccasland [pmccasland@envplus.net]
Sent: Friday, May 19, 2006 9:56 AM
To: Price, Wayne, EMNRD
Cc: Johnson, Larry, EMNRD; Sheeley, Paul, EMNRD; Larry Williams (Chevron); Nathan Mouser; 'Cody Miller'; 'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'Iain Olness'; 'Jason Stegemoller'; 'Roger Boone'
Subject: Chevron Mark Owen #9 Notification of Groundwater Impact
Attachments: Chevron Mark Owen #9 Groundwater Notification.pdf

Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits the attached Notification of Groundwater Impact and supporting documentation for the Chevron Mark Owen #9 drill pit. Hard copies will follow.

If there are any questions or more information is needed, please feel free to call Iain Olness or me at 505.394.3481 or Larry Williams (Chevron) at 505.394.1237.

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P.O. Box 1558
2100 Avenue O
Eunice, New Mexico 88231

Office: 505.394.3481
Cellular: 505.390.7864
FAX: 505.394.2601
eddress: pmccasland@envplus.net

5/19/2006



ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

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May 19, 2006

Mr. Wayne Price
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

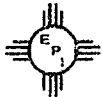
Re: Notification of Groundwater Impact
Chevron USA (O-Grid #4323)
Mark Owen #9 Pit (Ref. #200056)
UL-J of Section 34, T21S, R37E
Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference *Figure 1*) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and submitted to you for approval. All official communication should be sent to:

ENVIRONMENTAL PLUS, INC.



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Chevron USA
Mr. Larry Williams
P.O. Box 1249
2401 Avenue O
Eunice, New Mexico 88231
Telephone: (505) 394-1237
e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

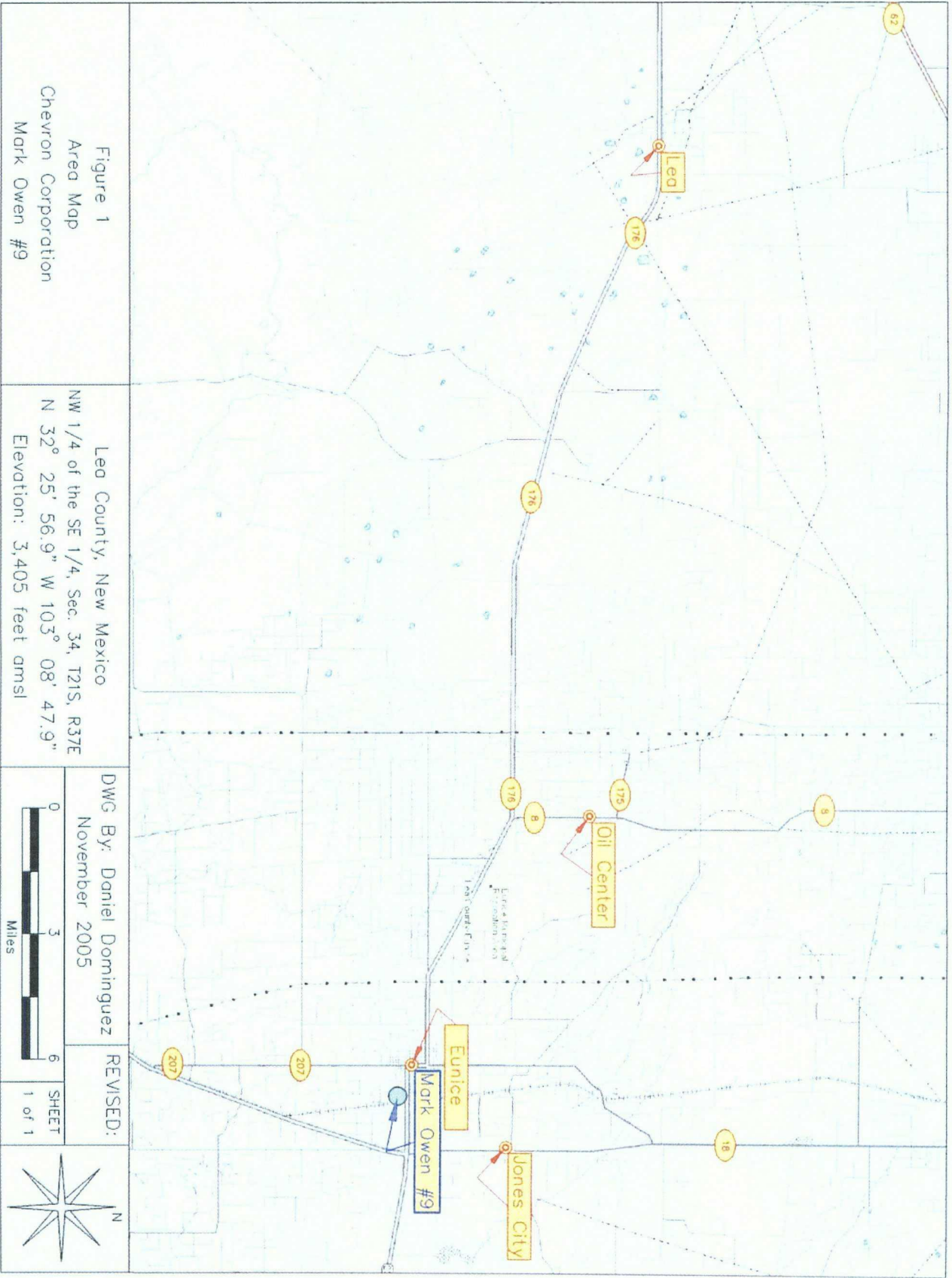
Pat McCasland
EPI Senior Consultant

cc: Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)
Larry Williams, Chevron (LCWL@Chevron.com)
Nathan Mouser, Chevron (NVMO@Chevron.com)
file

Enclosures:

Figure 1
Laboratory Report

ENVIRONMENTAL PLUS, INC.



<p>Figure 1 Area Map Chevron Corporation Mark Owen #9</p>	<p>Leona County, New Mexico NW 1/4 of the SE 1/4, Sec. 34, T21S, R37E N 32° 25' 56.9" W 103° 08' 47.9" Elevation: 3,405 feet amsl</p>	<p>DWG By: Daniel Dominguez November 2005</p>	<p>REVISED: 1 of 1</p>	<p>SHEET 1 of 1</p>
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ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/09/06
Project Owner: CHEVRON USA (#200056)
Project Name: MARK OWEN #9 PIT
Project Location: NOT GIVEN

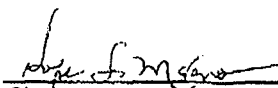
Sampling Date: 05/03/06
Sample Type: SOIL & WATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)
ANALYSIS DATE:		05/05/06	05/05/06
H11087-11	TMW3-10'	246	6478
H11087-12	TMW3-13'	124	5678
H11087-13	TMW3-18'	116	4447
H11087-14	TMW3-23'	161	6830
H11087-15	TMW3-28'	59.2	1711
H11087-16	TMW3	240	9697
Quality Control		27.3	960
True Value QC		25.0	1000
% Recovery		109.0	96
Relative Percent Difference		1.6	3.0

Soil
Water

METHODS: EPA 600/4-79-020	375.4	SM 4500 ClB
---------------------------	-------	-------------

NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

05-09-06
Date

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 client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. This shall not limit Cardinal's liability 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.



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PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC.

ATTN: PAT McCASLAND

P.O. BOX 1558

EUNICE, NM 88231

FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)	
ANALYSIS DATE:		05/05/06	05/05/06	
H11087-1	TMW1-5'	< 1	16	Soil
H11087-2	TMW1-20'	27.3	16	
H11087-3	TMW1-35'	58.8	32	
H11087-4	TMW1	181	80	Water
H11087-5	TMW2-5'	128	48	Soil
H11087-6	TMW2-20'	< 1	176	
H11087-7	TMW2-35'	54.2	128	
H11087-8	TMW2	116	80	Water
H11087-9	SB3-5'	27.3	16	Soil
H11087-10	SB3-30'	277	16	
Quality Control		27.3	960	
True Value QC		25.0	1000	
% Recovery		109.0	96	
Relative Percent Difference		1.6	3.0	

METHODS: EPA 600/4-79-020 375.4 SM 4500 ClB

NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

05-04-06
Date

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PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

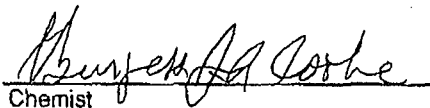
Receiving Date: 05/04/06
Reporting Date: 05/08/06
Project Owner: CHEVRON USA (#20056)
Project Name: MARK OWEN #9 PIT
Project Location: NOT GIVEN

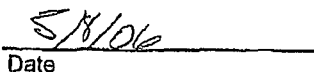
Sampling Date: 05/01, 05/02, & 05/03/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		05/05/06	05/05/06	05/05/06	05/05/06
H11087-4	TMW1	<0.002	<0.002	<0.002	<0.006
H11087-8	TMW2	<0.002	<0.002	<0.002	<0.006
H11087-16	TMW3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.094	0.092	0.093	0.294
True Value QC		0.100	0.100	0.100	0.300
% Recovery		94.4	92.0	93.4	97.9
Relative Percent Difference		1.3	0.4	1.9	3.0

Water

METHOD: EPA SW-846 8260


Chemist


Date

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PHONE (505) 383-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/10/06
Project Owner: CHEVRON TEXACO (#200056)
Project Name: MARK OWENS #9 PIT
Project Location: NOT GIVEN

Sampling Date: 04/28, 05/02, & 05/03/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (C ₁₀ -C ₂₈) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06
H11087-2	TMW1-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-6	TMW2-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-12	TMW3-13'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-14	TMW3-23'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		553	517	0.085	0.092	0.092	0.277
True Value QC		500	500	0.100	0.100	0.100	0.300
% Recovery		111	103	95.0	92.4	92.0	92.3
Relative Percent Difference		5.8	9.0	0.6	0.5	1.6	6.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

5/10/06
Date

H11087A

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 client for 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 thirty (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.

Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

1 of 2

Company Name Environmental Plus, Inc.

EPI Project Manager Pat McCasland

Billing 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 Mark Owen #9 PM

Project Reference #200056

EPI Sampler Name George Blackburn



Chevron USA

P. O. Box 1949

Eunice, NM 88231

Attention: Mr. Larry Williams

LAB I.D.	SAMPLE I.D.	MATRIX				PRESERV.				SAMPLING				BTEX 8021B	TPH 8015M	CHLORIDES (CI)	SULFATES (SO ₄)	PH	TCLP	OTHER >>
		GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME								
111687	1 TMW1-5'	G 1		X							4/28/06	11:47		X		X	X			
	2 TMW1-20'	G 1		X							4/28/06	11:58		X	X	X	X			
	3 TMW1-35'	G 1		X							4/28/06	12:21				X	X			
	4 TMW1	G 3	X								5/1/06	9:00		X		X	X			
	5 TMW2-5'	G 1		X							5/2/06	9:36				X	X			
	6 TMW2-20'	G 1		X							5/2/06	9:51		X	X	X	X			
	7 TMW2-35'	G 1		X							5/2/06	10:10				X	X			
	8 TMW2	G 3	X								5/2/06	12:00		X		X	X			
	9 SB3-5'	G 1		X							5/2/06	10:54				X	X			
	10 SB3-30'	G 1		X							5/2/06	11:28				X	X			

Sampler Relinquished:

Date 5-04-06 Received By:

Time

Relinquished by:

Date 5-4-06 Received By: (lab staff)

Time

Delivered by:

Sample Cool & Intact

Yes

No

Checked By:

Fax Results To Pat McCasland - EPI @ 505-394-2601

REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

2 of 2

Fax Results To Pat McCasland - EPI @ 505-394-2601
REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.



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STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

May 19, 2006

Mr. Wayne Price

Energy, Minerals, and Natural Resources Department

New Mexico Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

Re: Notification of Groundwater Impact

Chevron USA (O-Grid #4323)

Mark Owen #9 Pit (Ref. #200056)

UL-J of Section 34, T21S, R37E

Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference *Figure 1*) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD **Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)**" and submitted to you for approval. All official communication should be sent to:

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ENVIRONMENTAL PLUS, INC.

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Chevron USA
Mr. Larry Williams
P.O. Box 1249
2401 Avenue O
Eunice, New Mexico 88231
Telephone: (505) 394-1237
e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

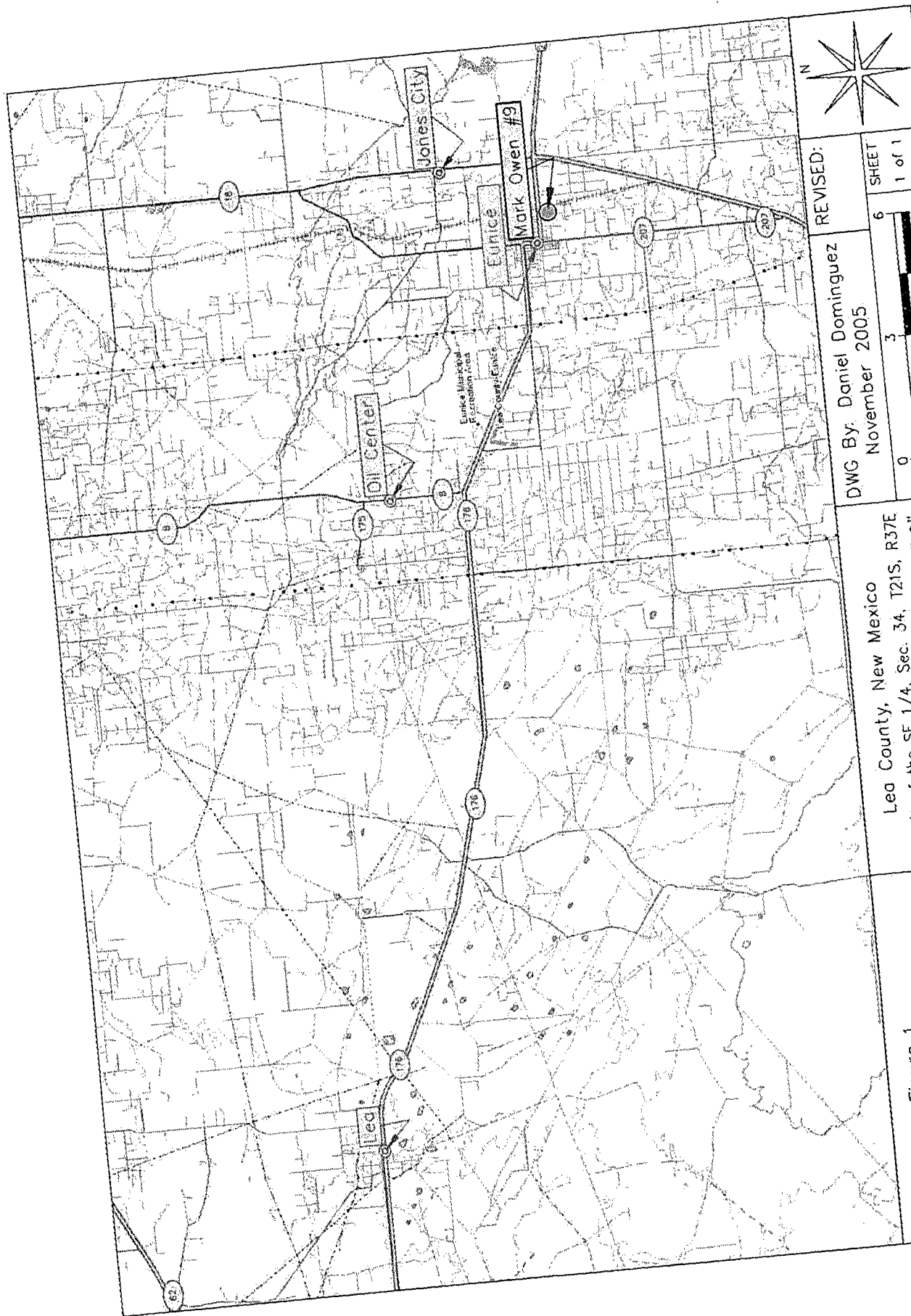
Pat McCasland
EPI Senior Consultant

cc: Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)
Larry Williams, Chevron (LCWL@Chevron.com)
Nathan Mouser, Chevron (NVMO@Chevron.com)
file

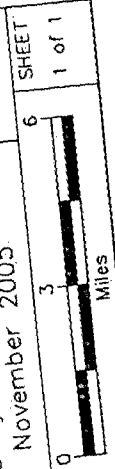
Enclosures:

Figure 1
Laboratory Report

ENVIRONMENTAL PLUS, INC.



DWG By: Daniel Dominguez
 November 2005
 REVISED:



Lea County, New Mexico
 NW 1/4 of the SE 1/4, Sec. 34, T21S, R37E
 N 32° 25' 56.9" W 103° 08' 47.9"
 Elevation: 3,405 feet amsl

Figure 1
 Area Map
 Chevron Corporation
 Mark Owen #9



ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC.

ATTN: PAT McCASLAND

P.O. BOX 1558

EUNICE, NM 88231

FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/03/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)
ANALYSIS DATE:		05/05/06	05/05/06
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H11087-12	TMW3-13'	124	5678
H11087-13	TMW3-18'	116	4447
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H11087-16	TMW3	240	9697
Quality Control		27.3	960
True Value QC		25.0	1000
% Recovery		109.0	96
Relative Percent Difference		1.6	3.0

soil
water

METHODS: EPA 600/4-79-020	375.4	SM 4500 ClB
---------------------------	-------	-------------

NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Pat McCasland
Chemist

05-09-06
Date

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 client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. Cardinal shall 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.



ARDINAL LABORATORIES

PHONE (325) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/09/06
Project Owner: CHEVRON USA (#200056)
Project Name: MARK OWEN #9 PIT
Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06
Sample Type: SOIL & WATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: AB

LAB NUMBER	SAMPLE ID	SO ₄ (ppm)	Cl (ppm)	
ANALYSIS DATE:		05/05/06	05/05/06	
H11087-1	TMW1-5'	< 1	16	Soil
H11087-2	TMW1-20'	27.3	16	
H11087-3	TMW1-35'	58.8	32	Water
H11087-4	TMW1	181	80	
H11087-5	TMW2-5'	128	48	Soil
H11087-6	TMW2-20'	< 1	176	
H11087-7	TMW2-35'	54.2	128	Water
H11087-8	TMW2	116	80	
H11087-9	SB3-5'	27.3	16	Soil
H11087-10	SB3-30'	277	16	
Quality Control		27.3	960	
True Value QC		25.0	1000	
% Recovery		109.0	96	
Relative Percent Difference		1.6	3.0	

METHODS: EPA 600/4-79-020	375.4	SM 4500 Cl ⁻ B
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NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

05-09-06
Date

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ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.

ATTN: PAT McCASLAND

P.O. BOX 1558

EUNICE, NM 88231

FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/08/06

Project Owner: CHEVRON USA (#20056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/01, 05/02, & 05/03/06

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

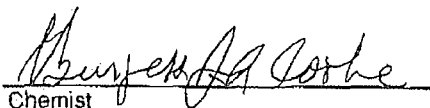
Sample Received By: AB

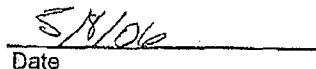
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		05/05/06	05/05/06	05/05/06	05/05/06
H11087-4	TMW1	<0.002	<0.002	<0.002	<0.006
H11087-8	TMW2	<0.002	<0.002	<0.002	<0.006
H11087-16	TMW3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.094	0.092	0.093	0.294
True Value QC		0.100	0.100	0.100	0.300
% Recovery		94.4	92.0	93.4	97.9
Relative Percent Difference		1.3	0.4	1.9	3.0

Water

METHOD: EPA SW-846 8260


Chemist


Date

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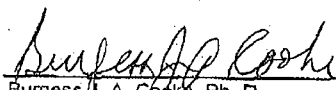
ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: PAT McCASLAND
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 05/04/06
Reporting Date: 05/10/06
Project Owner: CHEVRON TEXACO (#200056)
Project Name: MARK OWENS #9 PIT
Project Location: NOT GIVEN

Sampling Date: 04/28, 05/02, & 05/03/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (C ₁₀ -C ₂₈) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06
H11087-2	TMW1-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-6	TMW2-20'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-12	TMW3-13'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H11087-14	TMW3-23'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		553	517	0.085	0.092	0.092	0.277
True Value QC		500	500	0.100	0.100	0.100	0.300
% Recovery		111	103	95.0	92.4	92.0	92.3
Relative Percent Difference		5.8	9.0	0.6	0.5	1.6	6.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.


Burgess A. Cooke, Ph. D.

5/10/06
Date

H11087A

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505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

1 of 2

Company Name Environmental Plus, Inc.

EPI Project Manager Pat McCasland

Billing 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 Mark Owen #9 PII

Project Reference #200056

EPI Sampler Name George Blackburn



Chevron USA
P. O. Box 1949
Eunice, NM 88231

Attention: Mr. Larry Williams

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	MATRIX						PRESERV.			SAMPLING	
			GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME
111687	1 TMW1-5'	G 1			X							4/28/06	11:47
	2 TMW1-20'	G 1			X							4/28/06	11:58
	3 TMW1-35'	G 1			X							4/28/06	12:21
	4 TMW1	G 3	X									5/7/06	9:00
	5 TMW2-5'	G 1			X							5/2/06	9:36
	6 TMW2-20'	G 1			X							5/2/06	9:51
	7 TMW2-35'	G 1			X							5/2/06	10:10
	8 TMW2	G 3	X									5/2/06	12:00
	9 SB3-5'	G 1			X							5/2/06	10:54
	10 SB3-30'	G 1			X							5/2/06	11:28

CHLORIDES (Cl)

TPH 8015M

BTEX 8021B

SULFATES (SO₄)

pH

TCLP

OTHER >>>

Sampler Requisitioned:

Date 5-04-06 Received By:

Relinquished by:

Date 5-4-06 Received By: (lab staff)

Delivered by:

Sample Cool & Intact

Checked By:

Fax Results To Pat McCasland - EPI @ 505-394-2601


REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.

Cardinal Laboratories Inc.

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2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

2 of 2

Company Name		Environmental Plus, Inc.		 Chevron USA P. O. Box 1949 Eunice, NM 88231 Attention: Mr. Larry Williams	
EPI Project Manager		Pat McCasland			
Billing 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		Mark Owen #9 Pit			
Project Reference		#200056			
EPI Sampler Name		Geroge Blackburn			

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX								DATE	TIME	BTX 8021B	TPH 8015M	CHLORIDES (Cl ⁻)	SULFATES (SO ₄ ²⁻)	pH	TCLP	OTHER >>>
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL									
H11687 - 11	TMAW-3-10'	G	1			X						5/3/06	4:42			X	X			
12	TMAW-3-13'	G	1			X						5/3/06	4:49	X	X	X	X			
13	TMAW-3-18'	G	1			X						5/3/06	4:59			X	X			
14	TMAW-3-23'	G	1			X						5/3/06	5:10	X	X	X	X			
15	TMAW-3-28'	G	1			X						5/3/06	5:20			X	X			
16	TMAW-3	G	3	X								5/3/06	6:00	X		X	X			
7																				
8																				
9																				
10																				

Sampler Relinquished:	Date: 5-04-06	Received By:
Relinquished by:	Date: 5-4-06	Received By: (lab staff)
Delayed by:	Date: 4-28	Received By: (lab staff)
Sample Cool & Intact		Checked By:
Yes		Yes

Fax Results To Pat McCasland - EPI @ 505-394-2601
REM/ARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI.

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

AP 56
Form C-144
June 1, 2004
For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: CHEVRON U.S.A. INC. Telephone: 432-687-7375 e-mail address: LEAKEJD@CHEVRONTEXACO.COM
Address: 15 SMITH ROAD, MIDLAND, TEXAS 79705
Facility or well name: MARK OWEN #9 API #: 30-025-37189 U/L or Qtr/Qtr J Sec 34 T 21-S R 37-E
County: LEA Latitude 32 25' 56.49" N Longitude 103 08' 46.27" W NAD: 1927
Surface Owner: Private

Pit Type: Drilling Lined <input type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness 20 mil Pit Volume 4106 bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)
Ranking Score (Total Points)		10

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 4-07-2005

Printed Name/Title MARK GARZA DRILLING ENGINEER

Signature

Mark Garza

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title _____

Signature

ORIGINAL SIGNED BY
PAUL F. KAUTZ
PETROLEUM ENGINEER

Date

APR 11 2005

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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

PC
3/10/06
Form C-144
June 1, 2004
For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☒

Operator: Chevron USA Telephone: 505.394.3133 e-mail address: (wrbe@chevrontexaco.com)		
Address: PO Box 1949 2401 Avenue O Eunice, New Mexico 88231		
Facility or well name: Mark Owen #9 API #: 30-025-37189 Unit Letter (UL): J Qtr/Qtr: NW¼ SE¼ Section: 34, T21S, R37E		
County: Lea Latitude: 32°25'56.9"N Longitude: 103°08'47.9"W NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> WGS 84 <input checked="" type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private (Chevron USA) <input type="checkbox"/> Indian <input type="checkbox"/>		
Pit		
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/>		
Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/>		
Liner type: Synthetic <input checked="" type="checkbox"/> Thickness: 12 mil Clay <input type="checkbox"/>		
Pit Volume: ~3,000 bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) ~68' bgs		
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)		
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)		
Ranking Score (Total Points)		
10		

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: This pit is closed consistent with the "ChevronTexaco Drilling and Reserve Pit Closure General Plan, December 2004" and the NMOCD Pit and Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD Rule 50 (19.15.2.50 NMAC).

Pit Status: Liner intact ☒ Liner punctured or torn ☐

Method of Closure: Encapsulation in place according to the NMOCD Pit Rules and the ChevronTexaco Drilling and Reserve Pit Closure General Plan. (i.e., pit contents will be stiffened, pit liner folded over contents, overlay 20-mil polyethylene liner, cover with 3-feet of clean soil, contour and seed.)

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank will be closed according to NMOCD guidelines ☒, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.

Date: 1-7-06 Printed Name/Title: Bill Beck Construction Rep. Signature: [Signature]

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title: L.W. JENSEN - ENVIRONMENTAL ENGINEER Signature: [Signature] Date: 1-9-06