



CONOCO INC.

MCA ELVIS TRUNKLINE LEAK

ENVIRONMENTAL SITE INVESTIGATION

PERFORMED BY:

BBC INTERNATIONAL, INC.
WORLD-WIDE ENVIRONMENTAL SPECIALISTS
1324 W. MARLAND BLVD.
P. O. BOX 805
HOBBS, NEW MEXICO 88240
(505)397-6388 • FAX (505)397-0397
EMAIL: bbc@bbcinternational.com
WEBSITE: www.bbcinternational.com

NOVEMBER 19, 2001

PREPARED FOR:

MR. LEO GATSON
CONOCO INC.
1410 W. COUNTY ROAD
HOBBS, NEW MEXICO 88240

*Conoco 217817
facility - PPAC0608132084
incident - nPAC0608132223*

application pPAC0608132317



PHONE (505) 397-6388 • FAX (505) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805
E-MAIL: bbc@bbcinternational.com

April 12, 2002

Chris Williams
NM Oil Conservation Division

Hobbs, NM 88240

RE: Conoco, Inc. – MCA Elvis Trunkline Leak

Dear Mr. Williams:

BBC International, Inc. respectfully submits this site investigation report for the ~~MCA Elvis Trunkline Leak~~ on behalf of Conoco, Inc.

This site is an area that was investigated due to an injection line leak that occurred on ~~September 24, 2001~~. Approximately ~~450 barrels of produced water~~ was released with ~~430 barrels recovered~~.

The initial investigation and sampling was conducted on November 30, 2001. This report details the results.

As can be found in the report, the chlorides are reduced greatly at depth. The recommendation is to halt any further investigations activities and conduct surface remediation measures only.

I look forward to your review of this report and the agreement to our recommendation. If you have any questions, please do not hesitate to contact me at (505)397-6388 or at the address above.

Sincerely,

BBC International, Inc.

A handwritten signature in cursive script that reads "Ken Swinney".

Ken Swinney, CEI, CRS
Director of Operations

KS:js

encl.

Conoco MCA Elvis Trunkline Leak

9/24/01

1.0 INTRODUCTION

The subject site is located south of Maljamar, New Mexico in Unit Letter C of Section 29, Township 17 South, Range 32 East. The site consists of undeveloped rangeland. On September 24, 2001 a trunkline leaked approximately 450 barrels of produced water, with approximately 430 barrels being recovered from the surface.

2.0 SITE CHARACTERIZATION

The leak area is in a depression surrounded by sand hills. The leak area runs North-South for approximately 160 feet. The leak area is approximately 135 feet wide at the widest point. The surface soil is red sand. There is no water source within 1,000 feet of the site. There is no surface water within 1,000 feet of the site. Based on data from the ground water monitoring well located at the Conoco Maljamar Plant, depth to ground water is approximately ~~90~~ feet.

3.0 SITE INVESTIGATION ACTIVITIES

On November 30, 2001, BBC personnel conducted an inspection of the site. Two sample points were drilled at the site using BBC's tractor mount drilling rig. Sample point Elvis 1 was drilled to a depth of 25 feet. Sample point Elvis 2 was drilled to a depth of 35 feet. Samples were taken at 1 foot, 5 feet, 15 feet, and at 25 feet at sample point Elvis 1, at 1 foot, 5 feet, 15 feet, 25 feet, 30 feet, and at 35 feet at sample point Elvis 2. Field screening for chloride was performed on site. Field screening data is located on Figure 1. Soil samples were then sent to Cardinal Laboratories for analysis. Laboratory data is located on Figure 1 and in Appendix I. Photographs of the investigation activities are located in Appendix II.

4.0 CONCLUSION AND RECOMMENDATION

The data shows a reduction in chloride concentrations from 1 foot to approximately 35 feet. At the 25 feet and 35 feet depths the chloride concentrations are 576 ppm and 144 ppm respectively, this reduction is significant. The lab results for chloride is located on Figure 1 and in Appendix I. Taking into consideration that the depth to groundwater is greater than fifty-five feet, and the subsurface soil lithology at the site consists of caliche and sandstone layers, it is evident that the migration of chlorides to groundwater is unlikely. Therefore it is recommended that only surface remediation is necessary. This could consist of the addition of gypsum, ammonium nitrate, Salt Block, or other amendments that will reduce the chloride concentrations in the soil to allow for revegetation.

CONOCO

Conoco Inc.

**Record of Accidental Discharge
of Crude Oil, Water or
Hazardous Substances**SPILL CATEGORY: B

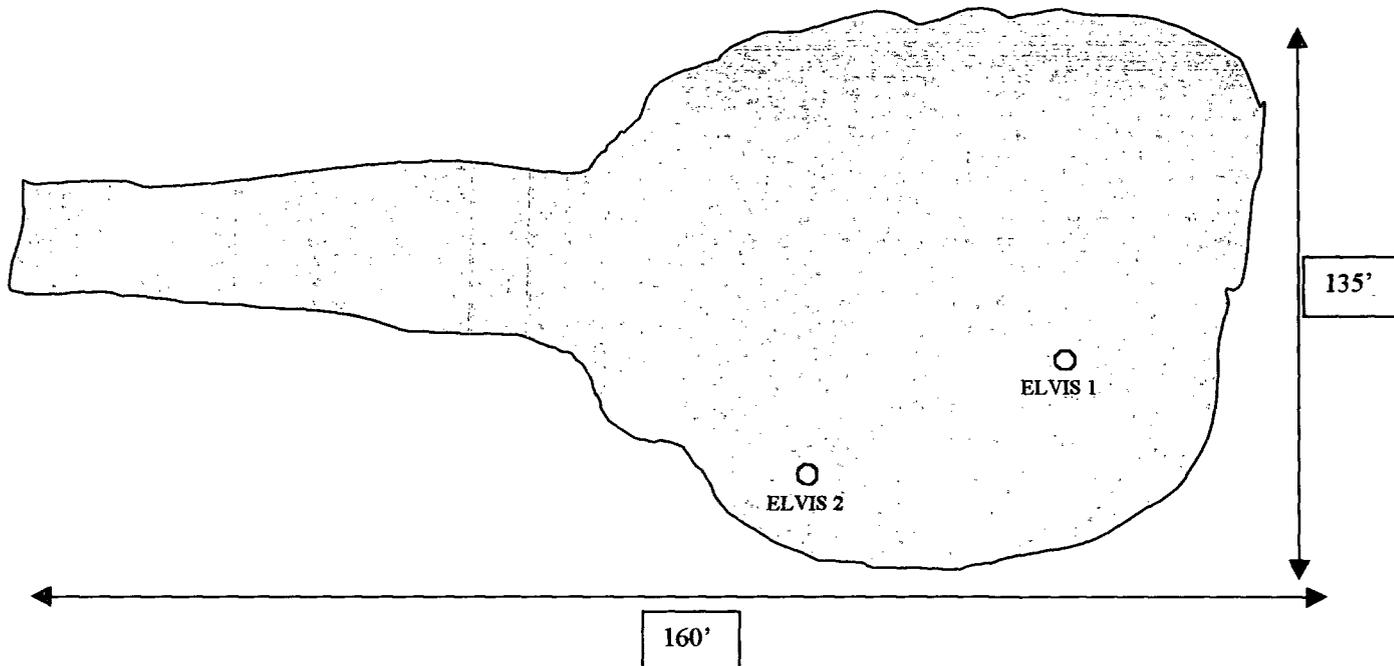
EP - Americas

10/18/99

1. Lease MCA PROD. WTR TRUNK LINE		2. Field BMP		3. Person In Charge of Site LARRY MINNICK	
4. Person Reporting Discharge KEN ANDERSEN			Person Receiving Report DEEN, GATSON, RITTER		
5. Discharge Discovered By KEVIN McNABB			Date and Time Discovered 9/24/01 @ 08:00am		
Witnesses KEVIN McNABB					
6. How Did Company Learn of Discharge SAW LEAK FROM TRUCK					
7. Date and Time Discharge Began 9/24/01 @ 03:00am		7a. Date and Time Discharge Ended 9/24/01 @ 08:30am		8. Date and Time Initial Report Received	
9. Discharge Site	Unit Letter C	Section 29	Blk./ TWP 17S	Survey/Range 32E	County LEA State NM
Highway Map Location GO SOUTH FROM MALJAMAR ON MALJAMAR ROAD 3.25 MILES, THEN WEST FOR 1.5 MILES					
10. Location of Discharge Click Here Feet to Wellhead No. Other 4" PROD WTR TRUNK LINE 200' NORTH OF MCA # 110					
11. Source of Discharge - Pipe Piping Size (In Inches) 4"		Type Fiberglass	Placement Buried	Coating Bare	Other Source of Discharge N/A
12. Possible Reason for Discharge Fatigue(Pressure)		12a. Describe Cause of Discharge and Action Taken to Prevent Recurrence 4" TEE SETTLED ON LINE PULLING OUT OF LINE. WILL PUT BRACING UNDER LINE UNDER GROUND AND ABOVE GROUND. ALARM LINE WITH TRANSDUCER.			
13. Names and Volumes of Substances Involved Bbls. Oil Bbls. Water 450 Salt Other Other Volume			14. Remedial Action - Picked Up Bbls. Oil Other Volume Bbls. Water 430 Salt		
15. Describe Nature and Extent of Area Affected and Cleanup Action Taken 100'X200' OF SANDY PASTURE DAMP FROM RAIN WITH NO COWS PRESENT. WILL CORE AREA AND TAKE APPROPRIATE ACTION TO REMEDIATE LEAK.					
16. Water Courses Reached Name		Type None	Condition N/A	Volume Entering Water Bbls. Oil Bbls. Water Other	
17. How Was Discharge Stopped SHUT VALVES @ BTRY # 1, ELVIS, & 4000 BBL TANK.					
18. Operating Conditions at Time of Discharge Click Here BOPD		Injection Well	BWPD @	PSI	
19. General Weather Conditions at Time of Discharge CLEAR AND COOL		20. Cost of Repair/Cleanup \$2,000.00			
21. Federal, State, and Local Agencies Notified and/or Non - Company On - Site Investigators					
Agency	Person Notified	Date Notified	Time Notified	Method Used	Person Notifying
BLM	ANDREA	09/24/01		PHONE	KEN ANDERSEN
NMOCD	SILVIA DICKEY	09/25/01	10:10 AM	PHONE	KEN ANDERSEN
22. Federal Lease No. LC - 029410A		Unit/CA No. 8920003410		Right of Way No. ONE CALL # 2001390409	
23. Landowner/ Tenant		Telephone Number:			
I Hereby Certify That The Information Above Is True and Complete To The Best of My Knowledge.					
Kenneth N. Andersen MSO			9/25/01 @ MALJAMAR, NM		
Signature and Title			Date and Location		

Figure 1

CONOCO MCA ELVIS TRUNKLINE



SAMPLE DEPTH	ELVIS 1 FIELD CI-	ELVIS 1 LAB CI-	ELVIS 2 FIELD CI-	ELVIS 2 LAB CI-
1 FOOT	2800 PPM	3679 PPM	1840 PPM	1056 PPM
5 FEET	3550 PPM	5758 PPM	5560 PPM	7518 PPM
15 FEET	1330 PPM	2159 PPM	3810 PPM	4799 PPM
25 FEET	440 PPM	576 PPM	2550 PPM	3119 PPM
30 FEET	-	-	1350 PPM	1951 PPM
35 FEET	-	-	360 PPM	144 PPM

LEGEND

○ BBC sample point - grab sample

BBC INTERNATIONAL, INC.

CONOCO ELVIS TRUNKLINE

Date: 12-20-01

Drawn By: Ken

Disk:

Sheet of Sheets

Scale: Not to Scale

File Name

Appendix I



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
ATTN: CLIFF BRUNSON
P.O. BOX 805
HOBBS, NM 88241
FAX TO: (505) 397-0397

Receiving Date: 12/07/01
Reporting Date: 12/10/01
Project Owner: CONOCO
Project Name: ELVIS TRUNKLINE
Project Location: MALJAMAR, NM

Analysis Date: 12/10/01
Sampling Date: 11/30, 12/03, 12/06/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H6329-1	ELVIS 1-1'	3679
H6329-2	ELVIS 1-5'	5758
H6329-3	ELVIS 1-15'	2159
H6329-4	ELVIS 1-25'	576
H6329-5	ELVIS 2-1'	1056
H6329-6	ELVIS 2-5'	7518
H6329-7	ELVIS 2-15'	4799
H6329-8	ELVIS 2-25'	3119
H6329-9	ELVIS 2-30'	1951
H6329-10	ELVIS 2-35'	144
Quality Control		1050
True Value QC		1000
% Accuracy		105
Relative Percent Difference		5.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Amy Hill
Chemist

12-10-01
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.

H6329



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79803 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

Company Name: RMC International
 Project Manager: Cliff Bowers
 Address: 1324 W. Packard
 City: Hobbs State: NM Zip: 88240
 Phone #: (505) 397-2388 Attn: Same
 Fax #: (505) 397-0897 City: Same
 Project #: State: Zip:
 Project Name: Elvis Truckline Phone #:
 Project Location: Malpais Fax #:

FOR LAB USE ONLY

LAB I.D.	Sample I.D.	(G)RAB OR (C)COMP.	# CONTAINERS	MATRIX						PRES.	SAMPLING	DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H10389-1	Elvis 1-1'	G	1								11-30-01	10:00a	✓	Chloride
	Elvis 1.5'	G	1								11-30-01	10:15a	✓	
	Elvis 1-95'	G	1								11-30-01	11:45AM	✓	
	Elvis 1-25'	G	1								11-30-01	2:45pm	✓	
	Elvis 2-1'	G	1								11-30-01	2:40pm	✓	
	Elvis 1-5'	G	1								12-3-01	2:55pm	✓	
	Elvis 2-15'	G	1								12-3-01	9:10am	✓	
	Elvis 2-25'	G	1								12-3-01	1:25pm	✓	
	Elvis 2-30'	G	1								12-6-01	1:30pm	✓	
	Elvis 2-35'	G	1								12-6-01	2:35pm	✓	

PLEASE NOTE: Liability and safety and safety'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 interruption, 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. Payment of whether such claim is based upon any of the above stated reasons or otherwise.

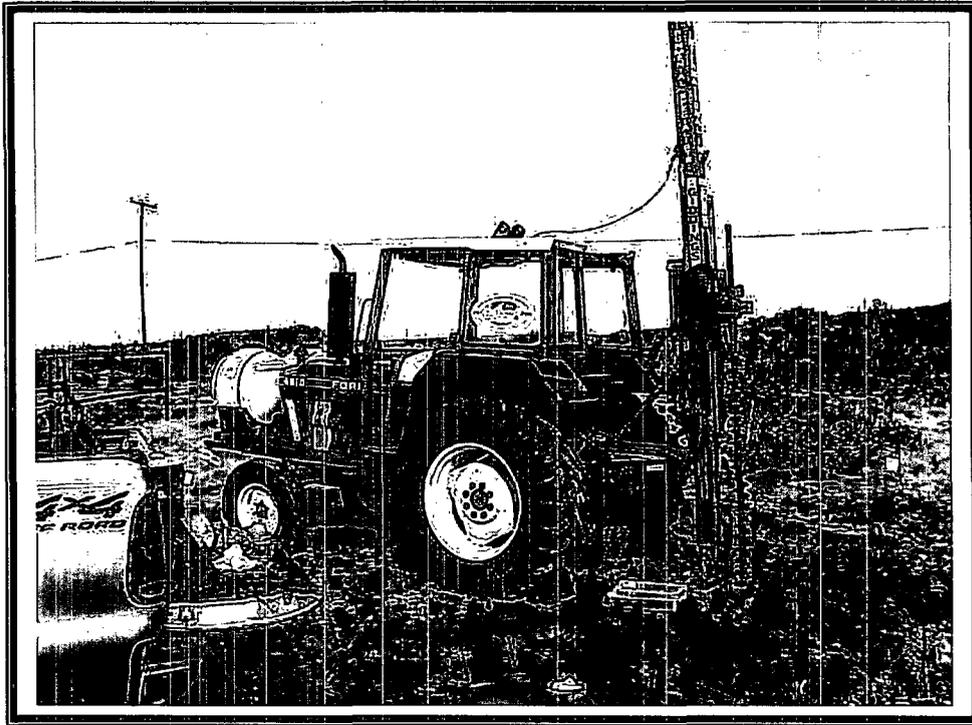
Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 2 1/2% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Date: 12-1-01 Received By:
 Relinquished By: Ken Seering Time:
 Date: 12/7/01 Received By: (Lab Staff)
 Time:
 Delivered By: (Circle One) Sample Condition CHECKED BY:
 (Initials)
 (Sample) - UPS - Bus - Other: Yes No Yes No

REMARKS:

* Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

Appendix II



Elvis Truckline – Spill date 9-24-01 – Sample taken at 1', 5', 15', 25',
30', 35' on 11-30-01, 12-03-01, 12-6-01