ENVIRONMENTAL PLUS, INC.
CONSULTING ENVIRONMENTAL REMEDIATION

18 August 2008

Sherry Bonham
Environmental Engineer
New Mexico Oil Conservation Division
1301 West Grand
Artesia, New Mexico 88210

RE: Remediation Proposal
Exxon Mobil –Avalon TB Transfer Line
UL-C (NE ¼ of the NW ¼) of Section 31, T 20 S, R 28 E
Longitude: 32° 32' 5.22"; Latitude: 104° 13' 18.92"
Eddy County, New Mexico
EPI Ref. #190033

Dear Sherry Bonham:

On May 26, 2008 at an unknown time approximately 56-barrels of produced water were released from a tank battery flow line (2 7/8" dia.) when a leak developed due to internal corrosion. Zero (0) barrels of produced water were recovered. Fluids released impacted approximately 4,770 ft^2 of the surrounding terrain (reference *Figure #3*). NMOCD (M. Bratcher-Artesia) was notified of the release on May 26, 2008 at 8:30 am. This letter report documents results of delineation activities and provides a Remediation Proposal.

Site Background

The Site is located in UL-C (NE ¼ of the NW ¼) of Section 31, T 20 S, R 28 E at an approximate elevation of 3,280 feet above mean sea level (amsl). The property is owned by the Department of the Interior and managed by the Bureau of Land Management (BLM). A search for water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000 feet radius of the Site (reference *Figure 2*). Groundwater data indicates the average water depth is approximately 50 feet below ground surface (bgs). Based on available information, it was projected distance between impacted soil and groundwater is approximately 47 vertical feet. Utilizing this information, New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this Site were determined as follows:

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	100 parts per million

*Chloride residuals may not be capable of impacting local groundwater above NMWQCC Standards of 250 mg/L

P.O BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 575•394•3481 ••• FAX 575•394•2601

Field Work

On May 26, 2008 EPI reacted to an Emergency Response and started preventative remediation activities on the release area. During the period of May 26-29, 2008 soil contaminated with produce water was blended with clean soil to solidify the material. Excavated material was placed on a plastic liner to prevent contamination of surrounding area. Approximately 120-cubic yards of impacted material were transported to Sundance Services, Inc., for disposal. EPI also performed site assessment, GPS survey and photographed the site on May 26, 2008. On May 27, 2008 three (3) soil samples were collected, field tested and remitted to an independent laboratory for analysis of chloride concentrations. Due to the nature of the release being produced water, no analyses were conducted for BTEX or TPH concentrations. Fourteen (14) soil samples were collected on May 28, 2008 and field tested for chlorides. A LaMotte Chloride Test Kit (Titration Method) was used for analyses of chloride concentrations. EPI and Straub Corporation mobilized at the Site on July 23, 2008 to direct the locale and depth of four (4) soil borings (i.e., SB-1, SB-2, SB-3 and SB-4; reference *Figure 4*). Soil samples collected at three (3), five (5) and ten (10) feet bgs were field tested and submitted to an independent laboratory for analyses of chloride concentrations.

Soil samples designated for laboratory analyses were immediately placed in laboratory provided containers, appropriately labeled, placed in ice and transported to either XENCO (ELT) Laboratory, Odessa, Texas or Cardinal Laboratory, Hobbs, New Mexico for quantification of chloride concentrations.

Analytical Data

Field analysis of soil samples collected on May 27 and May 28, 2008 indicated chloride concentrations increased from north (pooling area) to south (release area). Except for two (2) locations (NSBTM-1 and NSBTM-2A) chloride concentrations were above NMOCD Remedial Threshold goals of 250 mg/Kg. As this phase of the project was for emergency response, soil samples were field tested to quantify areas of high chloride concentrations and remove the bulk of surficial contamination to prevent runoff (reference *Table 3*).

Field analysis of soil boring soil samples collected on July 23, 2008 indicated chloride concentrations decreased with depth. Laboratory analytical results indicated chloride concentrations ranged from 2,510 mg/kg (SB-1 @ 3-ft bgs) to 16.1 mg/Kg (SB-2 @ 5-ft bgs) confirming the values of field analyses results. Soil boring soil samples demonstrated the bulk of chloride concentrations reside in the zone from original ground surface to ±five (5) feet below ground surface (bgs).

Site Remedial Proposal

In view of the bulk of chloride concentrations above NMOCD Remedial Threshold goals of 250 mg/Kg residing within ±five (5) feet of original ground surface, excavate the area in the vicinity of SB-1 and original point of release a minimum of five (5) feet bgs. As excavation activities traverses from SB-1 towards SB-2, SB-3 and SB-4, depth will be determined by field analyses of chloride concentrations verified by laboratory analytical results. Horizontal limits of excavation will also be determined by chloride concentrations. With projected groundwater being ≤50-feet

bgs, all impacted material in excess of NMOCD Remedial Threshold goals will be excavated and disposed. Impacted material will be transported to Sundance Services, Inc., for disposal.

Following completion of excavation activities and disposal of impacted material, the excavation will be backfilled with imported clean top soil. The entire disturbed area is to be contoured for natural drainage, disked and drill seeded with a mixture approved by the BLM.

Upon approval of the *Remediation Proposal*, EPI will initiate remedial phase of the project. At conclusion of the project, a *Site Closure Report* will be submitted to NMOCD, ExxonMobil Corporation and BLM.

Should you have any technical questions or concerns, please contact me at (575) 394-3481 (office), (575) 441-7802 (mobile) or via email at dduncan@envplus.net. Official communications/correspondence should be submitted to Mr. Shelby Pennington at (432) 266-1454 (mobile), (432) 596-4211 ext. 14 (office) or via email at shelby.g.pennington@exxonmobil.com.

Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer

Cc: Shelby Pennington, Sr. Operations Compliance Technician, ExxonMobil Corporation
Cody Miller, General Manager, EPI
Roger Boone, Operations Superintendent, EPI
Paul Evans, Environmental Protection Specialist, BLM

Encl: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Soil Boring Location Map
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Attachment II – Laboratory Analytical Results and Chain-of-Custody Form
Attachment III – Soil Boring Logs
Attachment IV – Copy of Initial NMOCD Form C-141

FIGURES

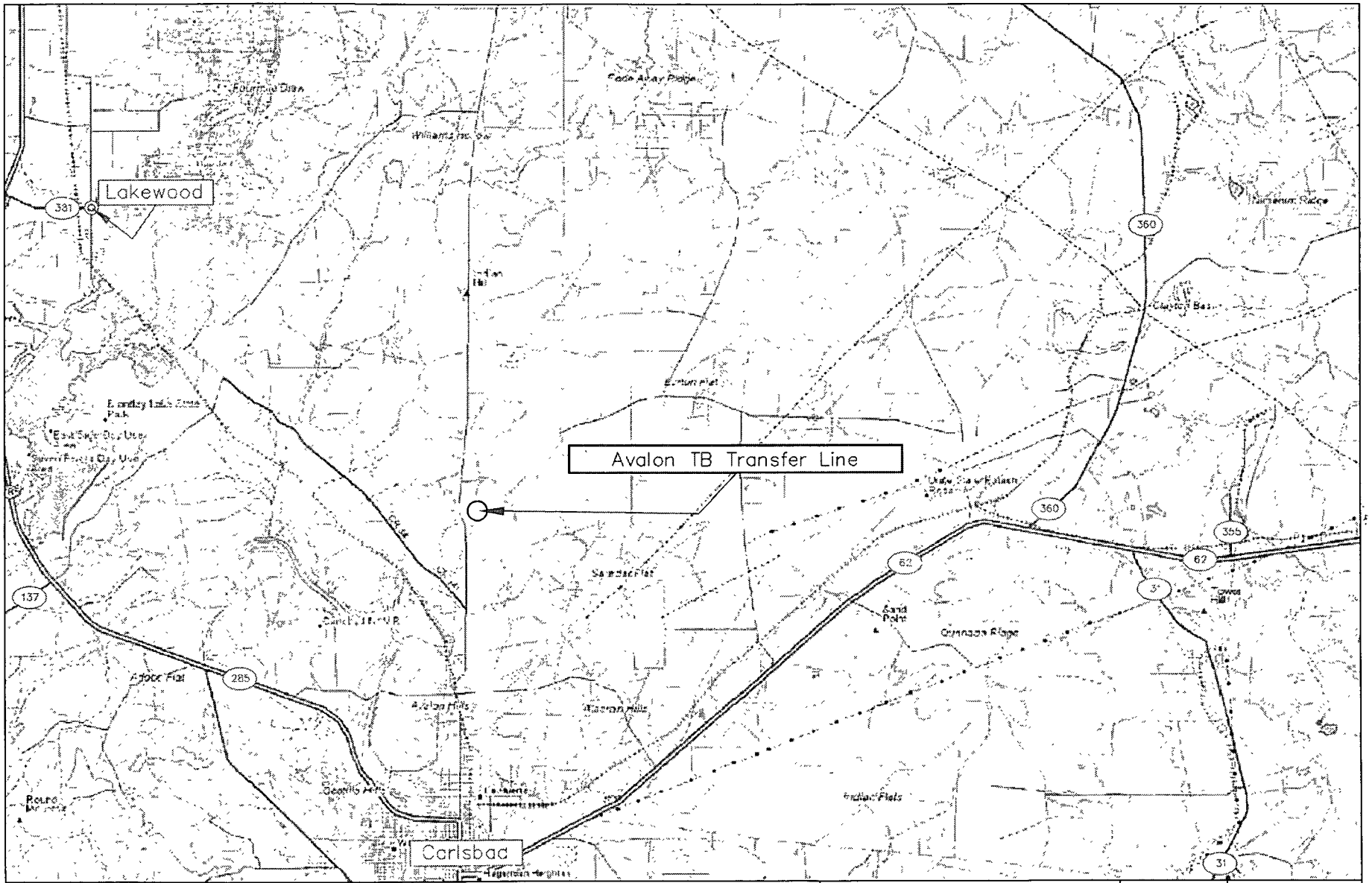

Figure 1
Area Map
ExxonMobil
Avalon TB Transfer Line

Eddy County, New Mexico
NE 1/4 of the NW 1/4, Sec. 31, T20S, R28E
N 32° 32' 5.22" W 104° 13' 18.92"
Elevation: 3,280 feet amsl

DWG By: D Dominguez
May 2008

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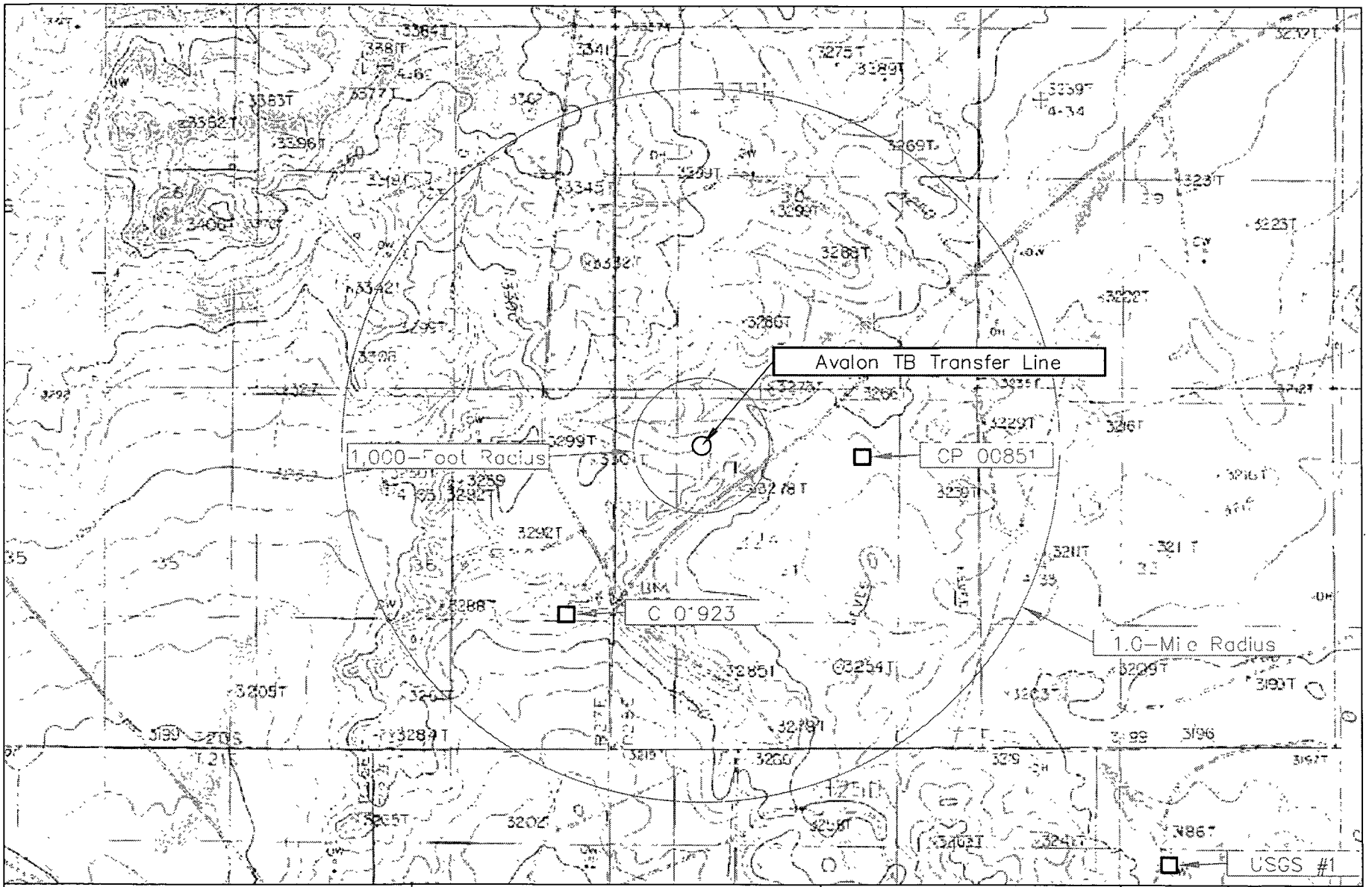

Figure 2 Site Location Map ExxonMobil Avalon TB Transfer Line	Eddy County, New Mexico NE 1/4 of the NW 1/4, Sec. 31, T20S, R28E N 32° 32' 5.22" W 104° 13' 18.92" Elevation: 3,280 feet amsl	DWG By: D Dominguez May 2008 0 2,000 4,000 Feet	REVISED: SHEET 1 of 1

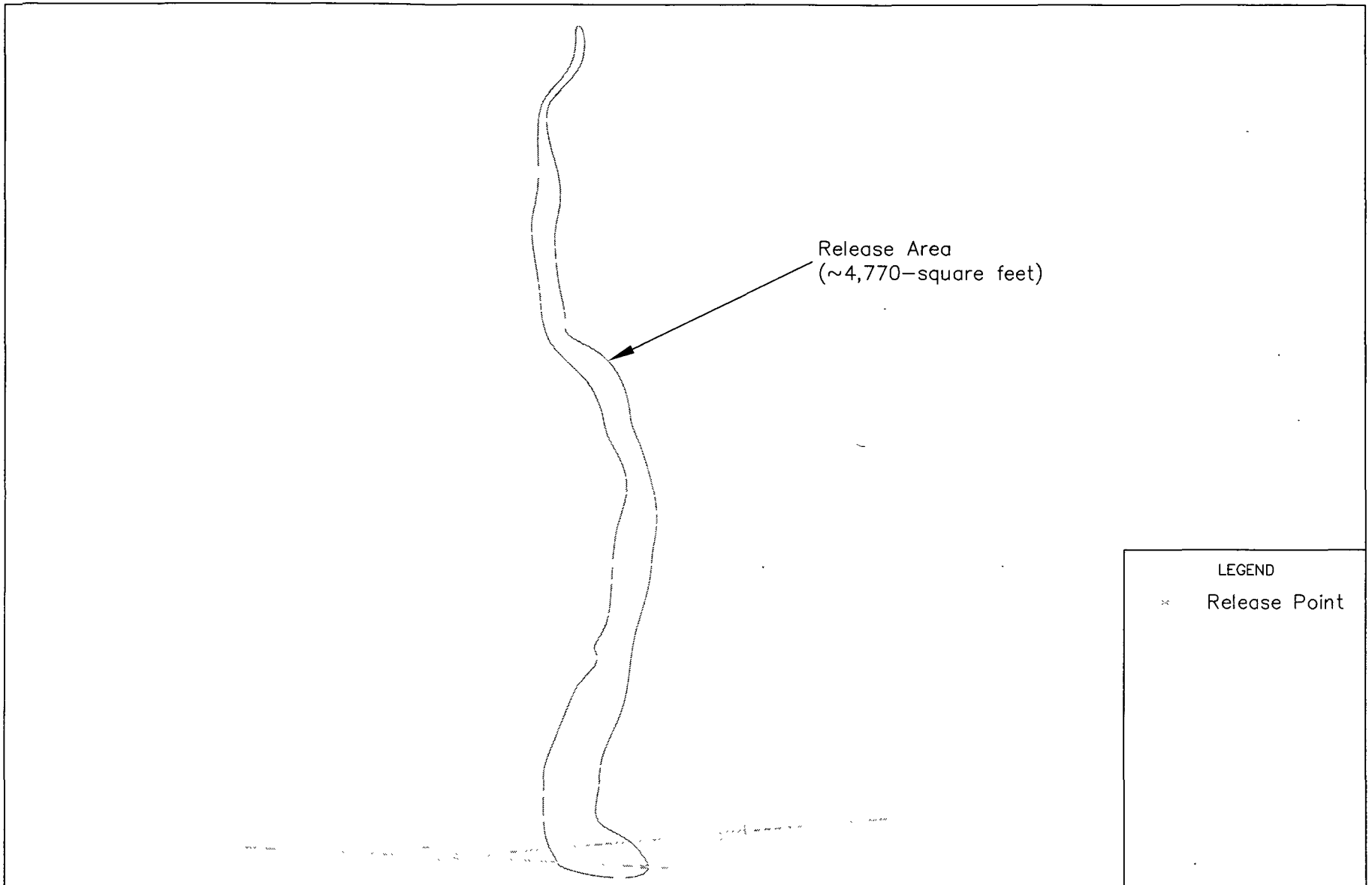

Figure 3 Site Map ExxonMobil Avalon TB Transfer Line	Eddy County, New Mexico NE 1/4 of the NW 1/4, Sec. 31, T20S, R28E N 32° 32' 5.22" W 104° 13' 18.92" Elevation: 3,280 feet amsl	DWG By: D Dominguez May 2008 0 60 120 Feet	REVISED: SHEET 1 of 1

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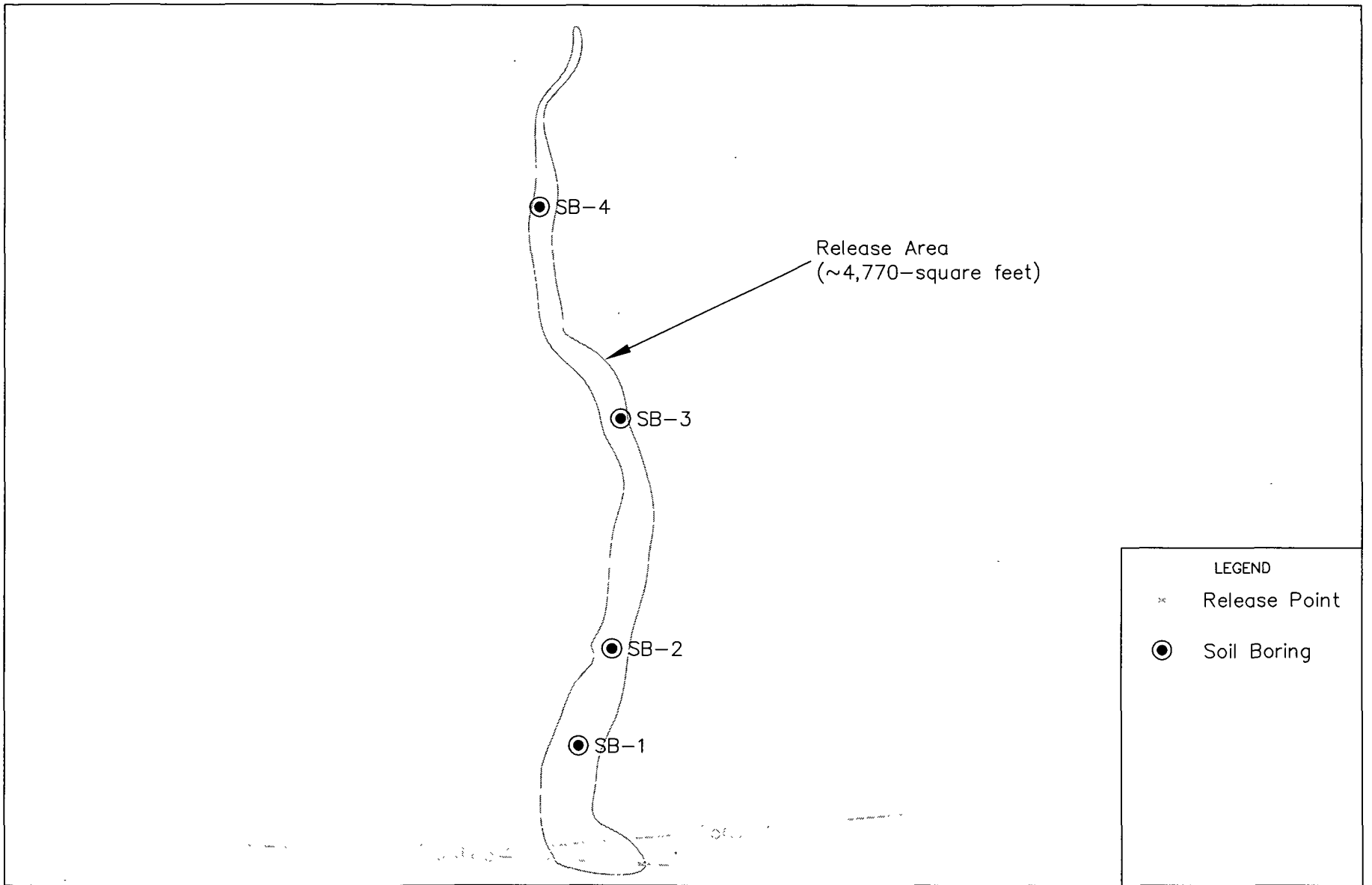


Figure 4
Soil Boring Location Map
ExxonMobil
Avalon TB Transfer Line

Eddy County, New Mexico
NE 1/4 of the NW 1/4, Sec. 31, T20S, R28E
N 32° 32' 5.22" W 104° 13' 18.92"
Elevation: 3,280 feet amsl

DWG By: D Dominguez
May 2008

REVISED:
July 2008

SHEET
1 of 1

TABLES

TABLE 1

Well Data

ExxonMobil - Avalon TB Transfer Line (Ref # 190033)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Depth to Water (ft bgs)
CP 00851	3	EXXON CORPORATION	SAN	20S	28E	31 2 1 4	N32° 32' 3.69"	W104° 12' 51.09"	14-Sep-95	3,236	115
C 01923	3	MWJ PRODUCING COMPANY	PRO	20S	27E	36 4 2	N32° 31' 40.75"	W104° 13' 41.97"	03-Sep-80	3,275	
USGS #1				21S	27E	4 1 3 2			14-Dec-76	3,192	22.04
C 01333	3	HUMBLE OIL	PRO	21S	27E	05 4 1 1	N32° 30' 29.60"	W104° 12' 39.00"	11-May-66	3,333	350
C 03163	3	DAVID MARLEY	STK	21S	27E	06 2 1 3	N32° 30' 48.43"	W104° 13' 40.73"	10-Mar-05	3,199	175
C 02699	0	BONNEVILLE FUELS	PRO	21S	26E	01 4 1 1	N32° 30' 29.41"	W104° 14' 42.02"	19-May-00	3,179	89
USGS #2				21S	27E	5 4 3 3			01-Dec-55	3,285	206.13
USGS #3				21S	27E	5 4 1 4			14-Jan-86	3,299	196
USGS #4				21S	27E	6 1 4 1			24-Jan-57	3,186	36.57

* = Data obtained from the New Mexico Office of the State Engineer Website (http://waters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet) and the USGS website (http://waterdata.usgs.gov/nwis)

Shaded areas indicate well locations not shown on Figure 2

[A] = in acre feet per annum

[B] = Elevation interpolated from USGS topographical map based on referenced location

SAN = 72-12-1 Sanitary in Conjunction with a Commercial Use

PRO = 72-12-1 Prospecting or development of natural resource

STK = 72-12-1 Livestock watering

quarters are 1=NW, 2=NE, 3=SW, 4=SE, quarters are biggest to smallest

TABLE 2

Summary of Soil Boring Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Tank Battery Transfer Line (EPI Ref. #190033)

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges C6-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
SB-1	3	In Situ	23-Jul-08	--	2,200	--	--	--	--	--	--	--	--	--	2,510
	5	In Situ	23-Jul-08	--	240	--	--	--	--	--	--	--	--	--	63.8
	10	In Situ	23-Jul-08	--	160	--	--	--	--	--	--	--	--	--	24
SB-2	3	In Situ	23-Jul-08	--	120	--	--	--	--	--	--	--	--	--	40.9
	5	In Situ	23-Jul-08	--	120	--	--	--	--	--	--	--	--	--	16.1
SB-3	3	In Situ	23-Jul-08	--	1,200	--	--	--	--	--	--	--	--	--	535
	5	In Situ	23-Jul-08	--	240	--	--	--	--	--	--	--	--	--	93.6
	10	In Situ	23-Jul-08	--	240	--	--	--	--	--	--	--	--	--	17 5
SB-4	3	In Situ	23-Jul-08	--	240	--	--	--	--	--	--	--	--	--	110
	5	In Situ	23-Jul-08	--	180	--	--	--	--	--	--	--	--	--	36.7
NMOCD Remedial Thresholds				100		10				50				100	250

Bold values exceed NMOCD remedial threshold goals

J = Analyte detected, but below the reporting limit, therefore, result is an estimated concentration

-- = Not Analyzed

TABLE 3

Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Tank Battery Transfer Line (EPI Ref. #190033)

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C12 (mg/Kg)	DRO C12 C28 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
BG-1	0.5	In situ	05/27/08	--	80	--	--	--	--	--	--	--	--	<16
NSBTM-1	2	In situ	05/27/08	--	240	--	--	--	--	--	--	--	--	32
NSBTM-2	2	Excavated	05/27/08	--	1,840	--	--	--	--	--	--	--	--	--
NSBTM-2A	4	In situ	05/27/08	--	240	--	--	--	--	--	--	--	--	32
NSBTM-3	0.5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-3A	1 5'	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-4	0.5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-4A	1.5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-5	0 5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-5A	1 5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-6	0.5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-6A	1.5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-7	0.5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-7A	1.5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-8	0.5	Excavated	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-9	0.5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NSBTM-10	0.5	In situ	05/28/08	--	4,000+	--	--	--	--	--	--	--	--	--
NMOCD Remedial Thresholds				100		10				50			100	250

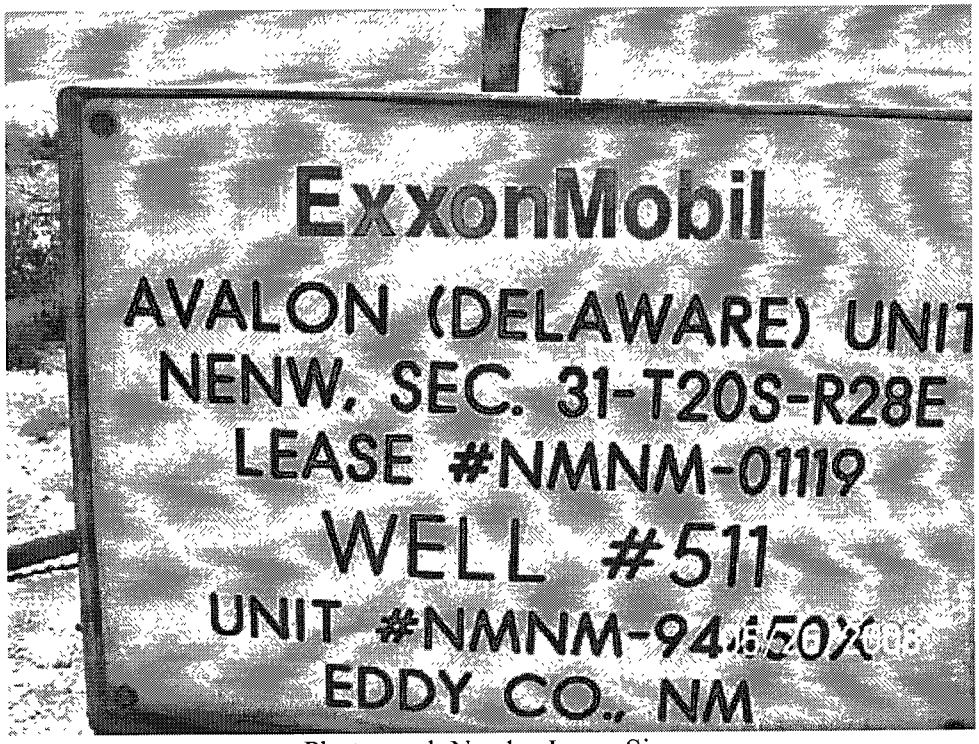
Bold values exceed NMOCD remedial threshold goals

Nomenclature. SP= Sample Point, T = Trench, SW = Sidewall, BTM = Bottom Hole, N = North, S = South, W = West and E = East

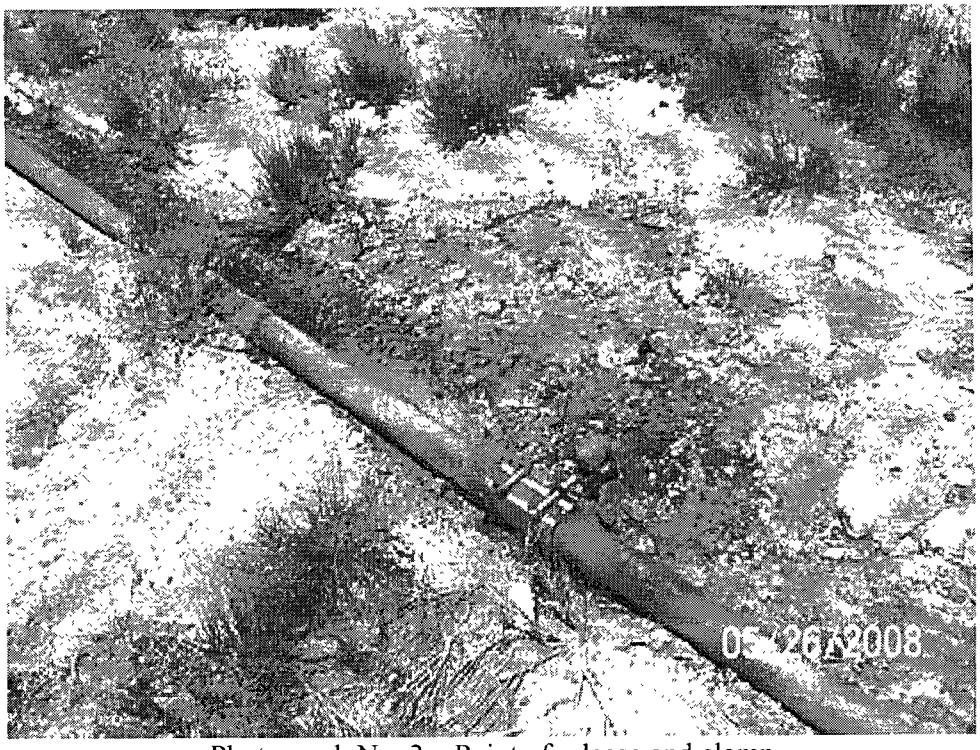
-- = Not Analyzed

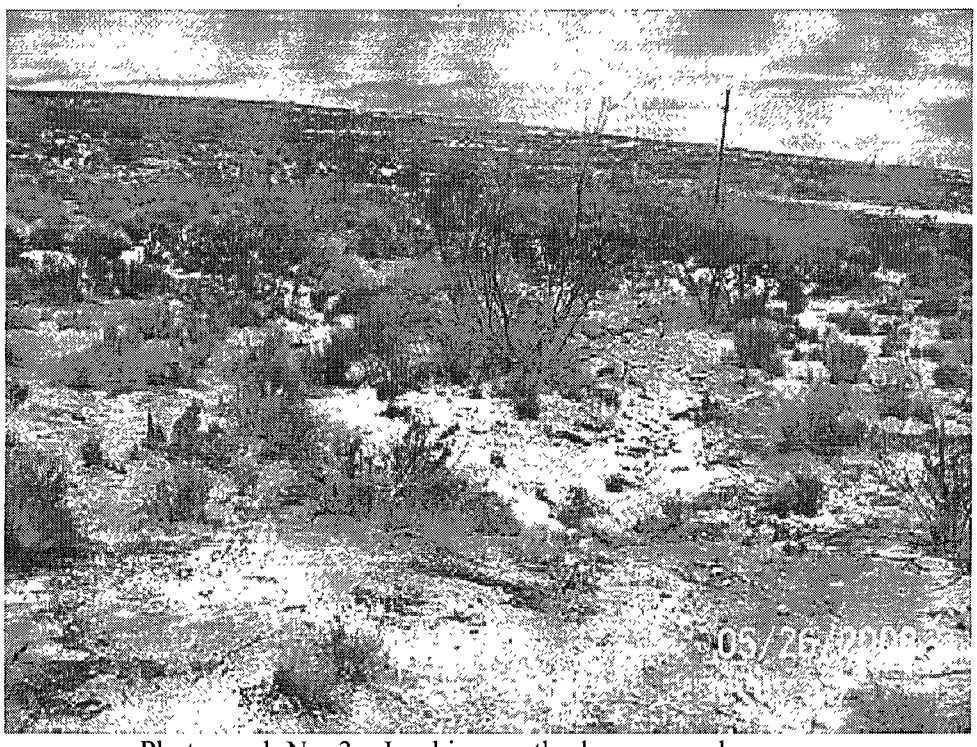
ATTACHMENTS

ATTACHMENT I
PHOTOGRAPHS

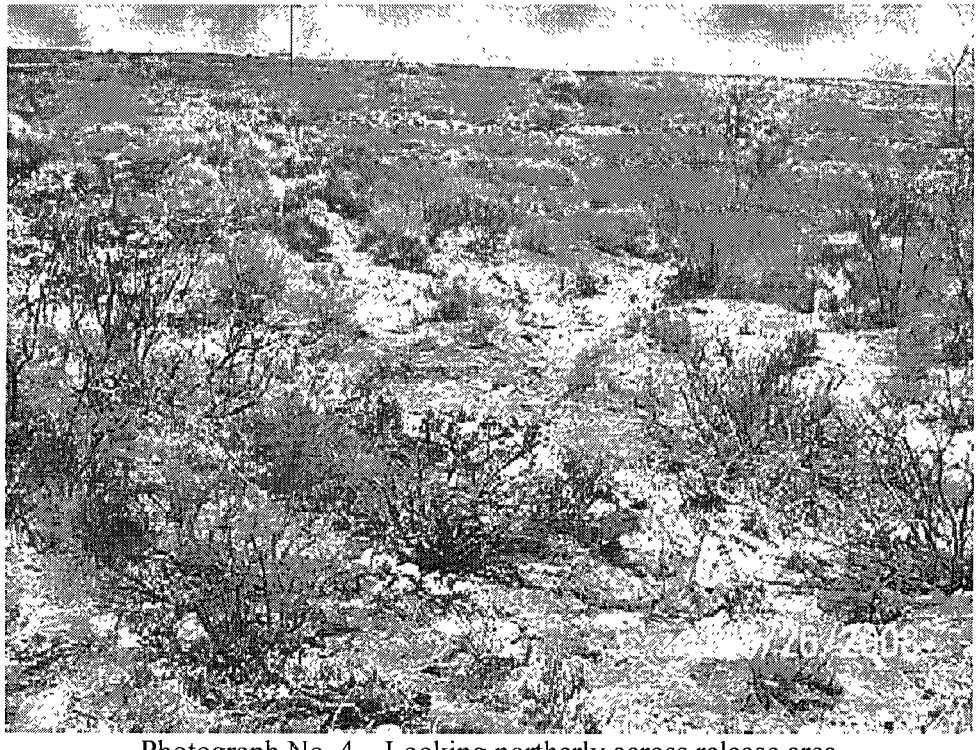


Photograph No. 1 – Lease Sign

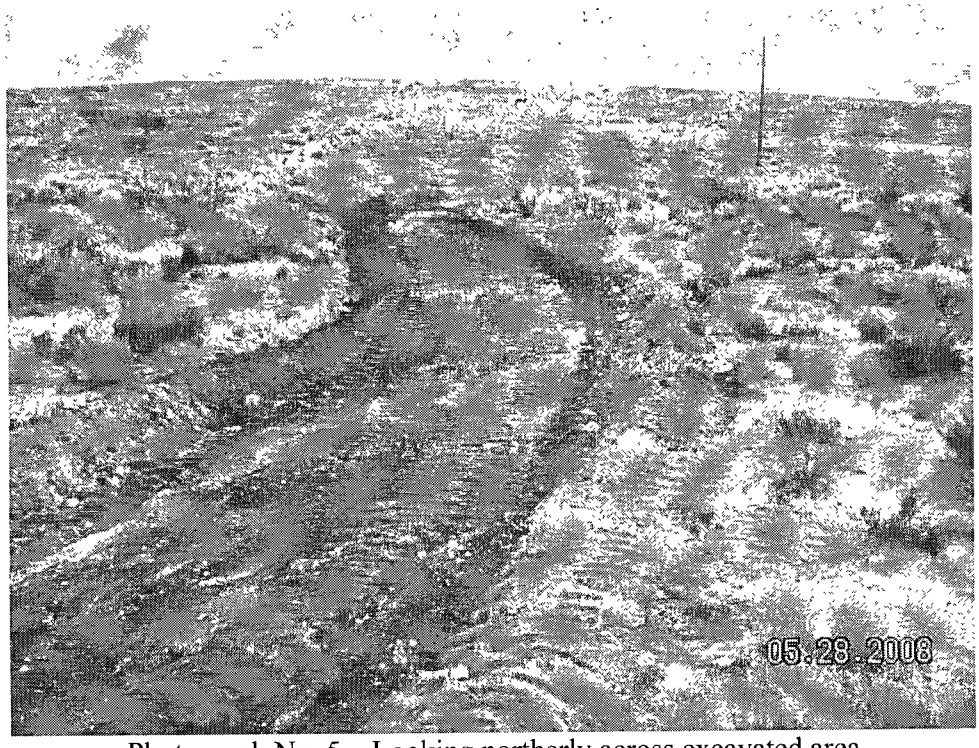

Photograph No. 2 – Point of release and clamp



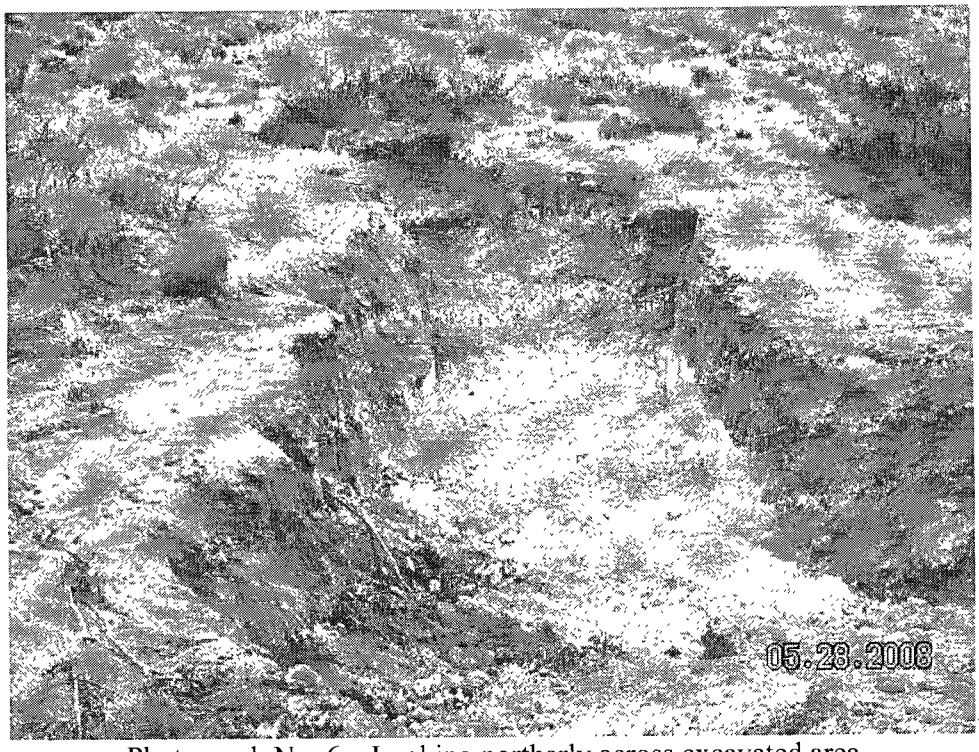
Photograph No. 3 – Looking northerly across release area



Photograph No. 4 – Looking northerly across release area



Photograph No. 5 – Looking northerly across excavated area



Photograph No. 6 – Looking northerly across excavated area

ATTACHMENT II
LABORATORY ANALYTICAL DATA
AND
CHAIN-OF-CUSTODY FORM

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC
ATTN: DAVID P. DUNCAN
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (575) 394-2601

Receiving Date: 05/29/08
Reporting Date: 05/29/08
Project Owner: EXXON MOBIL (190033)
Project Name: AVALON TB TRANSFER LINE
Project Location: UL-C, SEC. 31, T20S, R28E

Analysis Date: 05/29/08
Sampling Date: 05/27/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: KS

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H14885-1	BG-1 (0.5')	< 16
H14885-2	NSBTM-1 (2')	32
H14885-3	NSBTM-2A (4')	32
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

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

Kristen Dupuis
Chemist

05/29/08
Date

H14885 EPI

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 Results relate only to the samples identified above This report shall not be reproduced except in full with written approval of Cardinal Laboratories

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 *P.O. Box 1558, Eunice, NM 88231*
(505) 394-3481 FAX: (505) 394-2601

LAB: Cardinal

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ExxonMobil
Facility Name	Avalon TB Transfer Line
Location	UL-C, Sec. 31, T20S, R28E
Project Reference	190033
EPI Sampler Name	Kendall McCasland

Bill To:

Attn: David P. Duncan
P.O. Box 1558
Eunice, NM 88231

ANALYSIS REQUEST

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH				
171485-1	1	BG-1 (0.5')	G	1			X					X		27-May-08	8:45			X								
-2	2	NSBTM-1 (2')	G	1			X					X		27-May-08	9:45			X								
-3	3	NSBTM-2A (4')	G	1			X					X		27-May-08	14:35			X								
	4		G	1			X					X														
	5		G	1			X					X														
	6		G	1			X					X														
	7		G	1			X					X														
	8		G	1			X					X														
	9		G	1			X					X														
	10		G	1			X					X														

Sampler Relinquished: Kendall McCasland	5/29/2008 Time 0800	Received By:	E-mail results to: dduncan@envplus.net
Relinquished by:	5/29/2008 Time 0902	Received By (lab staff):	
Delivered by:	Sample Cool & Intact: Yes / No	Checked By: MCBB	

Analytical Report 308654

for

Environmental Plus, Incorporated

Project Manager: David P. Duncan

Avalon TB Transfer Line

190033

30-JUL-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

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

30-JUL-08

Project Manager: **David P. Duncan**
Environmental Plus, Incorporated
P.O. Box 1558
Eunice, NM 88231

Reference: XENCO Report No: **308654**
Avalon TB Transfer Line
Project Address: UL-C, Sec. 31, T20S, R28E

David P. Duncan:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 308654. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 308654 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY
Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

Sample Cross Reference 308654

Environmental Plus, Incorporated, Eunice, NM

Avalon TB Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 (3')	S	Jul-23-08 08 30		308654-001
SB-1 (5')	S	Jul-23-08 08:41		308654-002
SB-1 (10')	S	Jul-23-08 08 48		308654-003
SB-2 (3')	S	Jul-23-08 09.25		308654-004
SB-2 (5')	S	Jul-23-08 09 45		308654-005
SB-3 (3')	S	Jul-23-08 10 00		308654-006
SB-3 (5')	S	Jul-23-08 10 15		308654-007
SB-3 (10')	S	Jul-23-08 10:30		308654-008
SB-4 (3')	S	Jul-23-08 11 00		308654-009
SB-4 (5')	S	Jul-23-08 11:35		308654-010

Certificate of Analysis Summary 308654

Environmental Plus, Incorporated, Eunice, NM

Project Name: Avalon TB Transfer Line

Project Id: 190033
Contact: David P Duncan
Project Location: UL-C, Sec 31, T20S, R28E

Date Received in Lab: Fri Jul-25-08 12 06 pm
Report Date: 30-JUL-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id.	308654-001		308654-002		308654-003		308654-004		308654-005		308654-006	
	Field Id:	SB-1 (3')		SB-1 (5')		SB-1 (10')		SB-2 (3')		SB-2 (5')		SB-3 (3')	
	Depth												
	Matrix	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled.	Jul-23-08 08 30		Jul-23-08 08 41		Jul-23-08 08 48		Jul-23-08 09 25		Jul-23-08 09 45		Jul-23-08 10 00	
Inorganic Anions by EPA 300	*Extracted:*												
	Analyzed:	Jul-28-08 21 06		Jul-28-08 21 06		Jul-28-08 21 06		Jul-28-08 21 06		Jul-28-08 21 06		Jul-28-08 21 06	
	Units/RL.	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2510	50 0	63 8	5 00	24 0	5 00	40 9	10 0	16 1	5 00	535	10 0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 308654

Environmental Plus, Incorporated, Eunice, NM

Project Name: Avalon TB Transfer Line

Project Id: 190033
Contact: David P Duncan
Project Location: UL-C, Sec 31, T20S, R28E

Date Received in Lab: Fri Jul-25-08 12 06 pm
Report Date: 30-JUL-08
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id.*	308654-007		308654-008		308654-009		308654-010			
	Field Id:	SB-3 (5')		SB-3 (10')		SB-4 (3')		SB-4 (5')			
	Depth.										
	Matrix.	SOIL		SOIL		SOIL		SOIL			
	Sampled	Jul-23-08 10 15		Jul-23-08 10 30		Jul-23-08 11 00		Jul-23-08 11 35			
Inorganic Anions by EPA 300	*Extracted:*										
	Analyzed	Jul-28-08 21 06		Jul-28-08 21 06		Jul-28-08 21 06		Jul-29-08 08 36			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		93 6	5 00	17 5	5 00	110	10 0	36 7	10 0		

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Brent Barron
Odessa Laboratory Director

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Blank Spike Recovery

Project Name: Avalon TB Transfer Line

Work Order #: 308654 **Project ID:** 190033

Lab Batch #: 729238 **Sample:** 729238-1-BKS **Matrix:** Solid
Date Analyzed: 07/28/2008 **Date Prepared:** 07/28/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10 0	11 6	116	75-125	

Lab Batch #: 729326 **Sample:** 729326-1-BKS **Matrix:** Solid
Date Analyzed: 07/29/2008 **Date Prepared:** 07/29/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10 0	11 7	117	75-125	

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

Form 3 - MS Recoveries

Project Name: Avalon TB Transfer Line

Work Order #: 308654

Lab Batch #: 729238 **Project ID:** 190033

Date Analyzed: 07/28/2008 **Date Prepared:** 07/28/2008 **Analyst:** LATCOR

QC- Sample ID: 308584-043 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	93 9	200	334	120	75-125	

Lab Batch #: 729326

Date Analyzed: 07/29/2008 **Date Prepared:** 07/29/2008 **Analyst:** LATCOR

QC- Sample ID: 308654-010 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	36 7	200	284	124	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Sample Duplicate Recovery

Project Name: Avalon TB Transfer Line

Work Order #: 308654

Lab Batch #: 729238 **Project ID:** 190033

Date Analyzed: 07/28/2008 **Date Prepared:** 07/28/2008 **Analyst:** LATCOR

QC- Sample ID: 308584-043 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	93 9	92 6	1	20	

Lab Batch #: 729326

Date Analyzed: 07/29/2008 **Date Prepared:** 07/29/2008 **Analyst:** LATCOR

QC- Sample ID: 308654-010 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	36 7	32 7	12	20	

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

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231 (505) 394-3481 FAX (505) 394-2601
P O Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB XENCO (FL1)

Company Name	Environmental Plus, Inc
EPI Project Manager	David P Duncan
Mailing Address	P O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ExxonMobil
Facility Name	Avalon TB Transfer Line
Location	UL-C, Sec 31, T20S, R28E
Project Reference	190033
EPI Sampler Name	Kendall McCasland

Bill To

Attn David P Duncan
P O Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I D	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER	PRESERV: ACID/BASE	PRESERV: ICE/COOL	PRESERV: OTHER	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
30606 54																								
1	SB-1 (3')	G	1			X					X		23-Jul-05	8 30			X							
2	SB-1 (5')	G	1			X					X		23-Jul-05	8 41			X							
3	SB-1 (10')	G	1			X					X		23-Jul-05	8 48			X							
4	SB 2 (3')	G	1			X					X		23-Jul-05	9 25			X							
5	SB-2 (5')	G	1			X					X		23-Jul-05	9 45			X							
6	SB-3 (3')	G	1			X					X		23-Jul-05	10 00			X							
7	SB-3 (5')	G	1			X					X		23-Jul-05	10 15			X							
8	SB-3 (10')	G	1			X					X		23-Jul-05	10 30			X							
9	SB-4 (3')	G	1			X					X		23-Jul-05	11 00			X							
10	SB-4 (5')	G	1			X					X		23-Jul-05	11.35			X							

Sample Relinquished	07/25/08	Received By	E-mail results to dduncan@envplus.net
Relinquished by	Time 12.00	Received By (lab staff)	
Delivered by	07/25/08 Time 12.06	Checked By	
	Sample Cool & Intact (Yes) No		2.0 w/labels 4oz glass

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Env Plus

Date/ Time: 7.25.08 12:00

Lab ID #: 308654

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	2.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

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

ATTACHMENT III
SOIL BORING LOGS

Log Of Test Borings

(NOTE - Page 1 of 1)

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

Project Number: 190033

Project Name: ExxonMobil-Avalon Tank Battery Line Transfer

Location: UL-C, Section 31, Township 20 South, Range 28 East

Boring Number: SB-1

Surface Elevation: 3,280-feet amsl

Start Date: 7-23-08 Time: 0830 hrs

Completion Date: 7-23-08 Time: 0848 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
0830					2,200		0	3' SAND, Tan - fine
0841					240		5	5' SAND, Tan - fine
0848					160		10	10' SAND, Tan - fine
								End of Soil Boring at 10' bgs
							15	
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: Auger Trailer

Backfill Method: Bentonite

Field Representative: KM

Log Of Test Borings

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

Project Number: 190033

Project Name: ExxonMobil-Avalon Tank Battery Line Transfer

Location: UL-C, Section 31, Township 20 South, Range 28 East

Boring Number: SB-2 | Surface Elevation: 3,280-feet amsl

Start Date: 7-23-08 Time: 0925 hrs

Completion Date: 7-23-08 Time: 0945 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
0925					120		0	3' SAND/Caliche, Tan - fine
0945					120		5	5' SAND/Caliche, Tan - fine
								End of Soil Boring at 5' bgs
							10	
							15	
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: Auger Trailer

Backfill Method: Bentonite

Field Representative: KM

Log Of Test Borings

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

Project Number: 190033

Project Name: ExxonMobil-Avalon Tank Battery Line Transfer

Location: UL-C, Section 31, Township 20 South, Range 28 East

Boring Number: SB-3 | Surface Elevation: 3,280-feet amsl

Start Date: 7-23-08 Time: 1000 hrs

Completion Date: 7-23-08 Time: 1030 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1000					1,200		0	3' SAND, Tan - fine
1015					240		5	5' SAND, Tan - fine
1030					240		10	10' SAND, Tan - fine
								End of Soil Boring at 10' bgs
							15	
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: Auger Trailer

Backfill Method: Bentonite

Field Representative: KM

Log Of Test Borings

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

Project Number: 190033

Project Name: ExxonMobil-Avalon Tank Battery Line Transfer

Location: UL-C, Section 31, Township 20 South, Range 28 East

Boring Number: SB-4 | Surface Elevation: 3,280-feet amsl

Start Date: 7-23-08 Time: 1100 hrs

Completion Date: 7-23-08 Time: 1135 hrs

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Description
1100					240		0	3' SAND, Tan - fine
1135					180		5	5' SAND, Tan - fine
								End of Soil Boring at 5' bgs
							10	
							15	
							20	
							25	
							30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
-	-	-	-	-	-
-	-	-	-	-	-

Drilling Method: Auger Trailer

Backfill Method: Bentonite

Field Representative: KM

ATTACHMENT IV
COPY OF NMOCD FORM C-141

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 ExxonMobil	Contact Toni Collier
Address P O. Box 4358, Houston, TX 77210	Telephone No 281-654-1133
Facility Name Avalon Delaware Unit	Facility Type Flowline

Surface Owner BLM	Mineral Owner BLM	Lease No NMNM 0119

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	31	20S	28E					Eddy

Latitude N32.32 5 22 **Longitude** 104 13 18 92

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 56 bbls	Volume Recovered 0 bbls
Source of Release 2 7/8" flowline	Date and Hour of Occurrence 5/26/08	Date and Hour of Discovery 5/26/08 8 30AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bractcher	
By Whom? Shelby Pennington	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully *
N/A

Describe Cause of Problem and Remedial Action Taken *
2 7/8" flowline, 4 years old leaked due to internal corrosion Line was isolated

Describe Area Affected and Cleanup Action Taken *
Contaminated soil was immediately excavated. Delineation plan is being worked to submit to NMOCD

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations

Signature	OIL CONSERVATION DIVISION	
Printed Name Kevin M Dillow	Approved by District Supervisor	
Title: Compliance Supervisor	Approval Date	Expiration Date
E-mail Address Kevin.M Dillow@exxonmobil.com	Conditions of Approval	Attached ☐
Date: 6/4/08 Phone. 281-654-1557		

* Attach Additional Sheets If Necessary

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

ExxonMobil
PO Box 4358
Houston, TX 77210

RE: Avalon TB Transfer Line (Closest facility: Avalon Delaware #511 30-015-24524)
C-31-20S-28E Eddy County, New Mexico
2RP-201

Dear Operator:

The New Mexico Oil Conservation Division District 2 Office (OCD) is in receipt of a work plan proposal (plan) for remediation of a release of produced fluids that occurred at the above referenced facility.

The plan is accepted with the following stipulations:

- Confirmation samples are to be obtained and submitted to OCD prior to backfilling.
- Notify the OCD 48 hours prior to obtaining samples where analyses are to be submitted to the OCD.
- Submit a Final Report Form C-141 upon satisfactory completion of activities.
- Remediation requirements may be subject to change as site conditions warrant.
- Remediation to be completed by October 22, 2008.

Please be advised that NMOCD acceptance of this plan 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 this plan does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

Respectfully,

Sherry Bonham
NMOCD District II

Oil Conservation Division
1301 West Grand Avenue • Artesia, NM 88210
Phone 575.748.1283 • Fax 575.748.9720 • www emnrd state nm us/OCD