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 June 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: OXY USA, Inc.	Contact: Mark Andersen
Address: 6 Desta Drive, Suite 6000, Midland, TX 79705	Telephone No. (432) 685-5824
Facility Name: Dimaggio Tank Battery	Facility Type: Well

Surface Owner	Mineral Owner	Lease No. NM-1800

30-015-26930

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	16	26S	29E	1650'	South	1693'	East	Eddy

Latitude 32° 02' 24.2N **Longitude** 103° 59' 10.9W

NATURE OF RELEASE

Type of Release Oil	Volume of Release 40 bbls	Volume Recovered 35 bbls
Source of Release Tank Battery	Date and Hour of Occurrence 12-7-07 11:45 AM	Date and Hour of Discovery 12-7-07 @ 11:45 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? BLM – Terry Gregston, NMOCD – Gerry Guye	
By Whom? Johnny Burnett	Date and Hour 12-7-07 12:15 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
Oil production being produced to oil tank, tank filled up and equalizing line plugged up and allowed 40 barrels of oil to overflow

Describe Area Affected and Cleanup Action Taken.*
Vacuum truck was called and recovered 35 barrels of oil. Backhoe was utilized to pick up and remove saturated soil. Highlander (Tetra Tech) collected samples from excavation for evaluation. Impacted soils were excavated and hauled to disposal.

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: Tim Reed	OIL CONSERVATION DIVISION
Printed Name: Tim Reed (Tetra Tech, Agent for OXY)	Approved by District Supervisor: Chris Williams
Title: Sr. Project Manager	Approval Date: 10-1-08 Expiration Date: N/A
E-mail Address: timothy.reed@tetratech.com	Conditions of Approval: N/A Attached ☐ N/A
Date: 8/5/08 Phone: (432) 682-4559	

* Attach Additional Sheets If Necessary

2RP-136

TETRA TECH

AUG 15 2008
OCD-ARTESIA

August 5, 2008

Ms. Sherry Bonham
Environmental Bureau
Oil Conservation Division, District 2
1301 W. Grand Ave.
Artesia, New Mexico 88210

Re: Assessment and Closure Request for the Pogo Producing Company (Now OXY, USA, Inc.), DiMaggio #1 Tank Battery, Located in Unit Letter J, Section 16, Township 26 South, Range 29 East, Eddy County, New Mexico.

Ms. Bonham:

Tetra Tech, (Formerly Highlander Environmental Corp.) was contacted by Pogo Producing Company (now OXY) to collect confirmation samples from a release that occurred at the DiMaggio #1 Tank Battery located at Unit Letter J, Section 16, Township 26 South, Range 29 East, Eddy County, New Mexico. The site location coordinates are N 32.04009° W 103.98632°. The Site is shown on Figure 1.

Background

On December 7, 2008, the oil tank over-flowed, releasing 40 barrels of oil, which was contained inside the southern end of the facility firewalls. A vacuum truck was immediately called out to the site and approximately 35 barrels of oil was recovered from the ground. The impacted area measured approximately 32' x 50'. The State of New Mexico C-141 (Initial) is included in Appendix C.

Groundwater and Regulatory

According to the Ground Water Report 3, "Geology and Ground-Water Resources of Eddy County, New Mexico", there is one well in Section 16 (26.29.16.220) with a reported depth to groundwater of 125' below ground surface (bgs). Copies of the water level data are enclosed in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed

Tetra Tech
1910 North Big Spring, Midland, TX 79705
Tel 432.682.1559 Fax 432.682.3946 www.tetratech.com

RRAL for benzene was determined to be 10 mg/kg and 50 mg/kg for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based upon the apparent regional depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment

On January 23, 2008, Highlander inspected and assessed the spill area. Prior to sampling, Pogo supervised the removal of approximately 6" of impacted soil from the spill area and backfilled with clean caliche. A total of five (5) auger holes were installed inside the tank battery facility firewall to assess the spill area. Samples were collected to the top of a dense caliche layer. Soil samples collected were analyzed for evaluation by method 8015M, BTEX by method 8021B and chloride by method 300.0. The sample locations are shown on Figure 2. The sampling results are summarized in Table 1.

Soil Sample Results

Referring to Table 1, none of the samples exceeded the RRALs for TPH or BTEX. The chloride concentrations ranged from <100 mg/kg to 1980 mg/kg. AH-3 and AH-4 showed chloride concentrations of 181 mg/kg (0.5-1.0') and <100 mg/kg (0.5-1.0'), respectively. The remaining auger holes (AH-1, AH-3 and AH-5) were not vertically defined, with bottom hole samples exceeding 1,000 mg/kg.

Based on the data, the hydrocarbon stained soils inside the tank battery were excavated to a depth of 0.5' below surface and hauled to disposal. These areas were backfilled with clean material. In order to define the vertical extent of chloride impact, three backhoe trenches were installed. Due to piping and accessibility, a trench could not be placed in the vicinity of AH-5. The trench locations are shown on Figure 3. Chloride concentrations in the trenches declined with depth. The chloride concentration in T-1 (AH-1) at 3.0' bgs was 509 mg/kg. The concentration in T-2 (AH-2) declined to 681 mg/kg at 10.0' bgs and in T-3 (AH-3) to 175 mg/kg at 4.0' bgs.

Based upon the results of the sampling, depth to groundwater and location of the spill area inside the facility firewall, OXY requests closure of this site. A copy of the C-141 (Final) is included in Appendix A. If you have any question or comments concerning the assessment or the closure request, please call me at (432) 682-4559.

Respectfully submitted,
Tetra Tech

Tim Reed

Tim Reed, P.G.
Sr. Project Manager

cc: Mark Andersen – OXY

TETRA TECH
Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946
www.tetratech.com

TABLE

Table 1
Pogo Producing Company
DiMaggio #1 Tank Battery
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-1	X		1/23/2008	0.5-1.5	105	5.63	110.6	<0.0200	<0.0200	<0.0200	0.444	1,090
(T-1)	X		4/24/2008	2.0								1,920
	X		4/24/2008	3.0								509
AH-2	X		1/23/2008	0.5-1.5	89.8	50.2	140	<0.0200	<0.0200	<0.0200	0.0659	1,210
	X		1/23/2008	1.5-2.0	64.2	3.9	68.1	-	-	-	-	952
	X		1/23/2008	2.5-3.0	-	-	-	-	-	-	-	1,500
(T-2)	X		4/24/2008	3.0	-	-	-	-	-	-	-	1,730
	X		4/24/2008	4.0	-	-	-	-	-	-	-	2,150
	X		4/24/2008	5.0	-	-	-	-	-	-	-	714
	X		4/24/2008	6.0	-	-	-	-	-	-	-	1,800
	X		5/19/2008	8.0	-	-	-	-	-	-		1,500
	X		5/19/2008	10.0	-	-	-	-	-	-		681
AH-3	X		1/23/2008	0.5-1.0	1,930	3,020	4,950.0	0.897	9.02	6.08	23.6	181
(T-3)	X		4/24/2008	2.0	<50.0	<1.0	<50.0	<0.01	0.01	<0.01	<0.01	599
	X		4/24/2008	3.0	<50.0	<1.0	<50.0	<0.01	0.0249	<0.01	<0.01	1,010
	X		4/24/2008	4.0	-	-	-	-	-	-	-	175
	X		4/24/2008	5.0	-	-	-	-	-	-	-	275
AH-4	X		1/23/2008	0.5-1.0	70.3	17	87.3	<0.0100	0.019	<0.0100	0.0345	<100
AH-5	X		1/23/2008	0.5-1.0	<50.0	7.8	7.8	<0.0100	<0.0100	<0.0100	<0.0100	1,980

(-) Not Analyzed

FIGURES

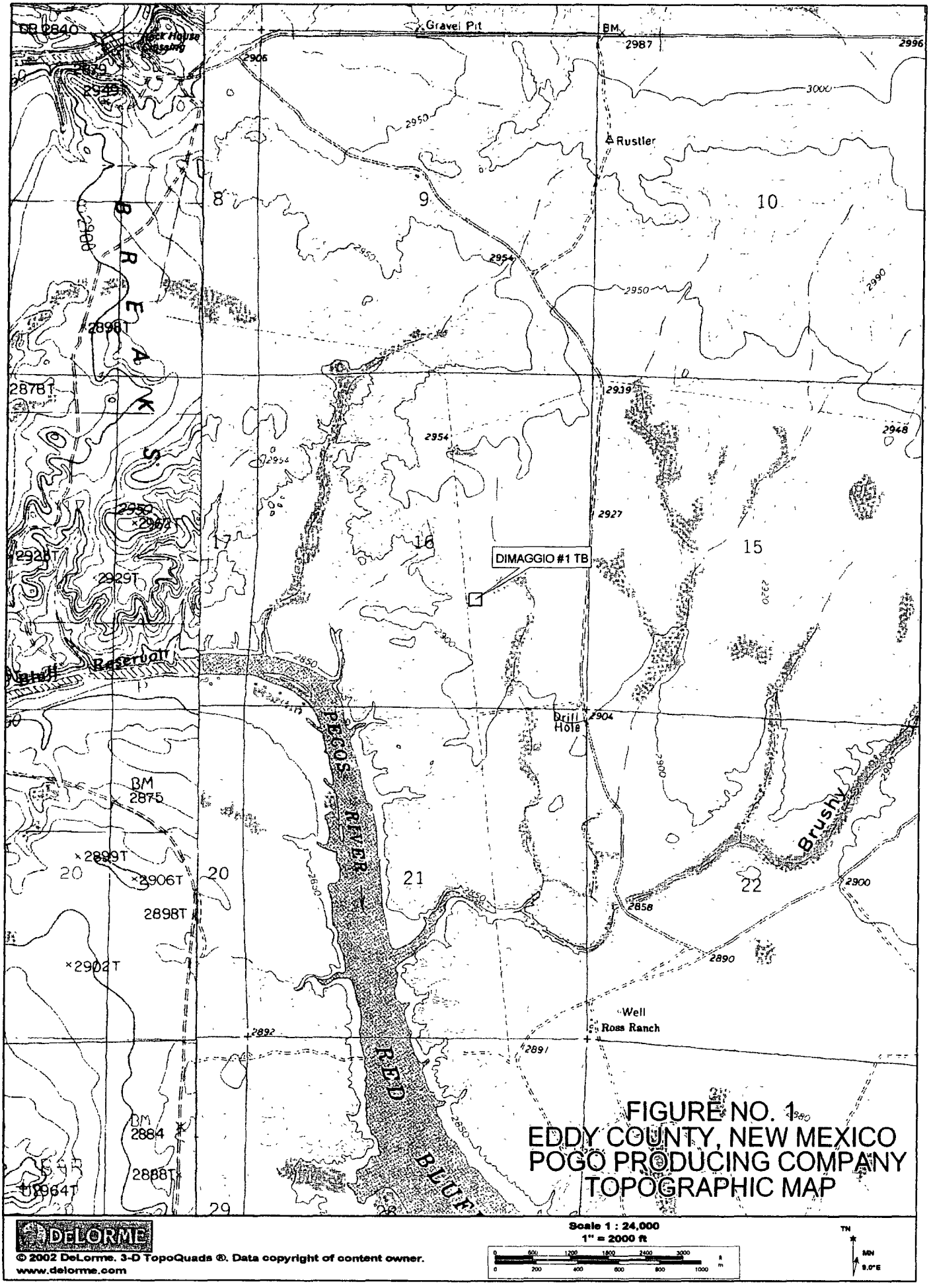
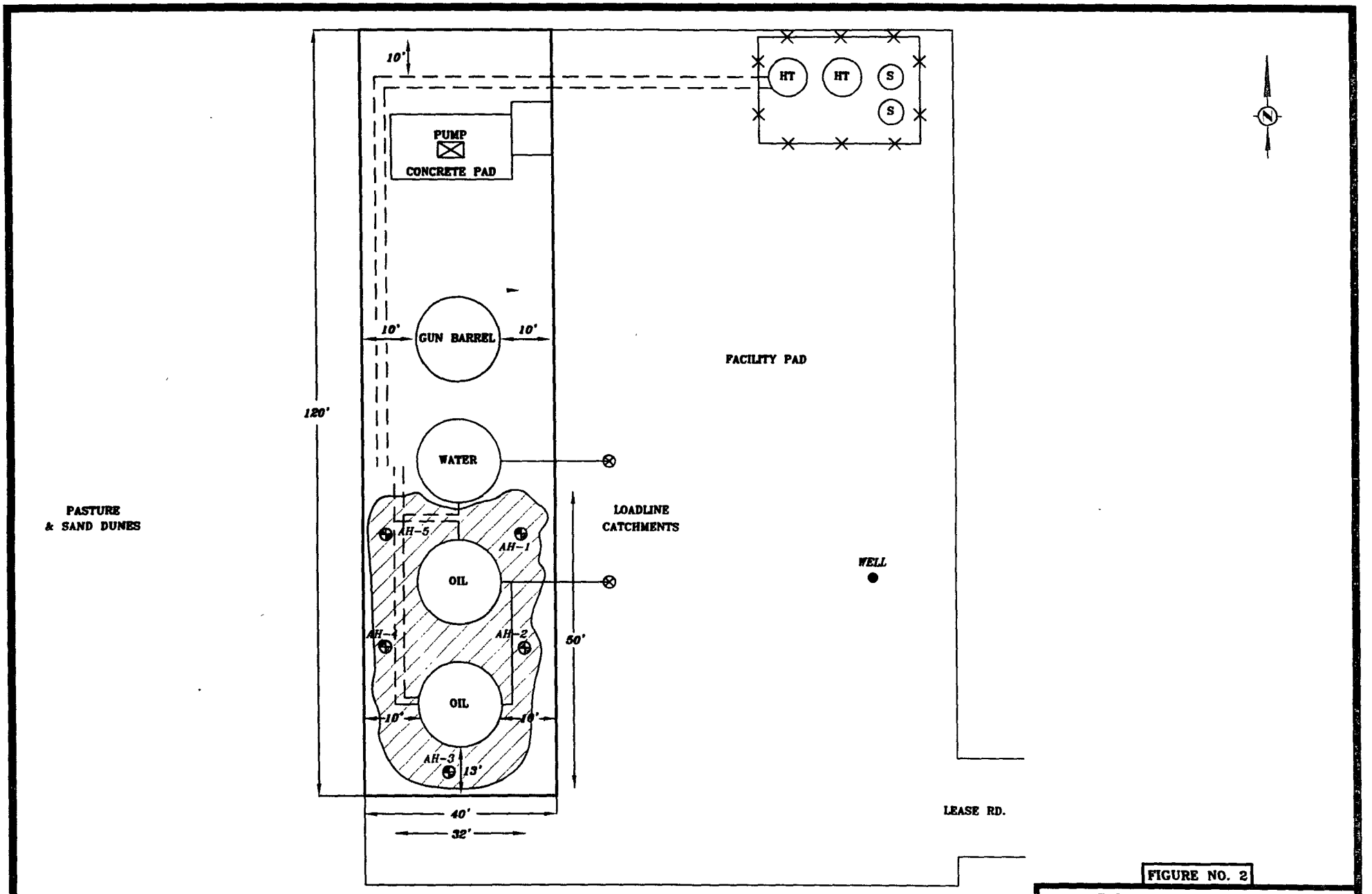
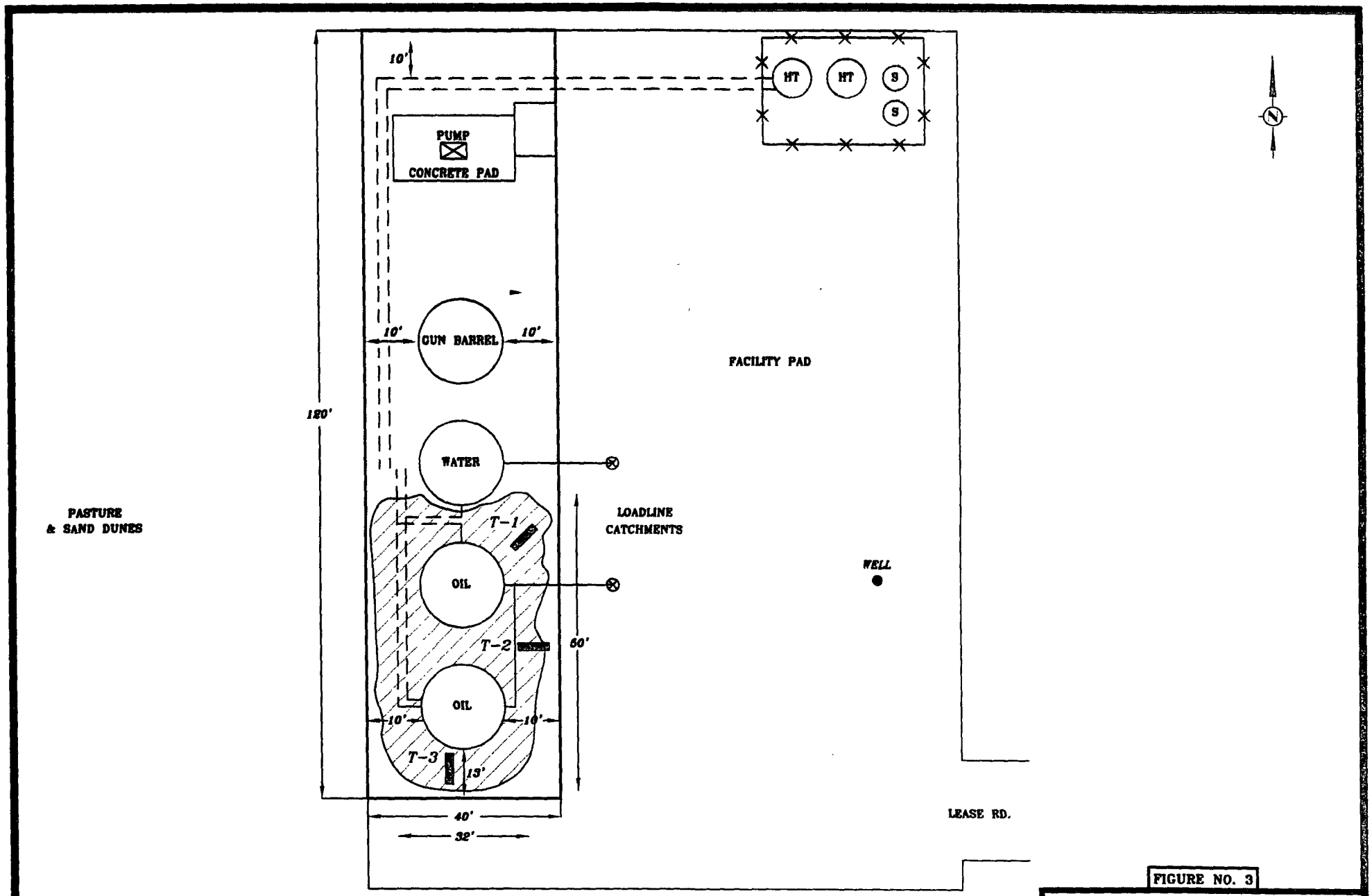


FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
TOPOGRAPHIC MAP


10'
HT
HT
S
S
PUMP
CONCRETE PAD
10'
GUN BARREL
10'
FACILITY PAD
120'
WATER
PASTURE
& SAND DUNES
LOADLINE
CATCHMENTS
AH-5
AH-1
OIL
WELL
AH-4
AH-2
50'
OIL
10'
10'
AH-3
13'
40'
32'
LEASE RD.
SPILL AREA
AUGER HOLE
NOT TO SCALE
FIGURE NO. 2
EDDY COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
DIMAGGIO #1 TB
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS
DATE:
1/25/08
DWN. BY:
RC
FILE:


10'
HT
HT
S
S
PUMP
CONCRETE PAD
10'
GUN BARREL
10'
FACILITY PAD
120'
WATER
PASTURE
& SAND DUNES
LOADLINE
CATCHMENTS
T-1
OIL
WELL
T-2
60'
OIL
10'
10'
T-3
13'
40'
32'
LEASE RD.
SPILL AREA
T- BACKHOE TEST TRENCH
NOT TO SCALE
FIGURE NO. 3
EDDY COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
DIMAGGIO #1 TB
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS
DATE: 1/25/08
DWN. BY: RC
FILE:

APPENDIX A
GROUNDWATER DATA

Water Well - Average Depth to Groundwater

Pogo - Damaggio #, Eddy County, New Mexico

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16 125	15	14	13
19	20	21	22	23	24
30	29	28	27	26 85	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

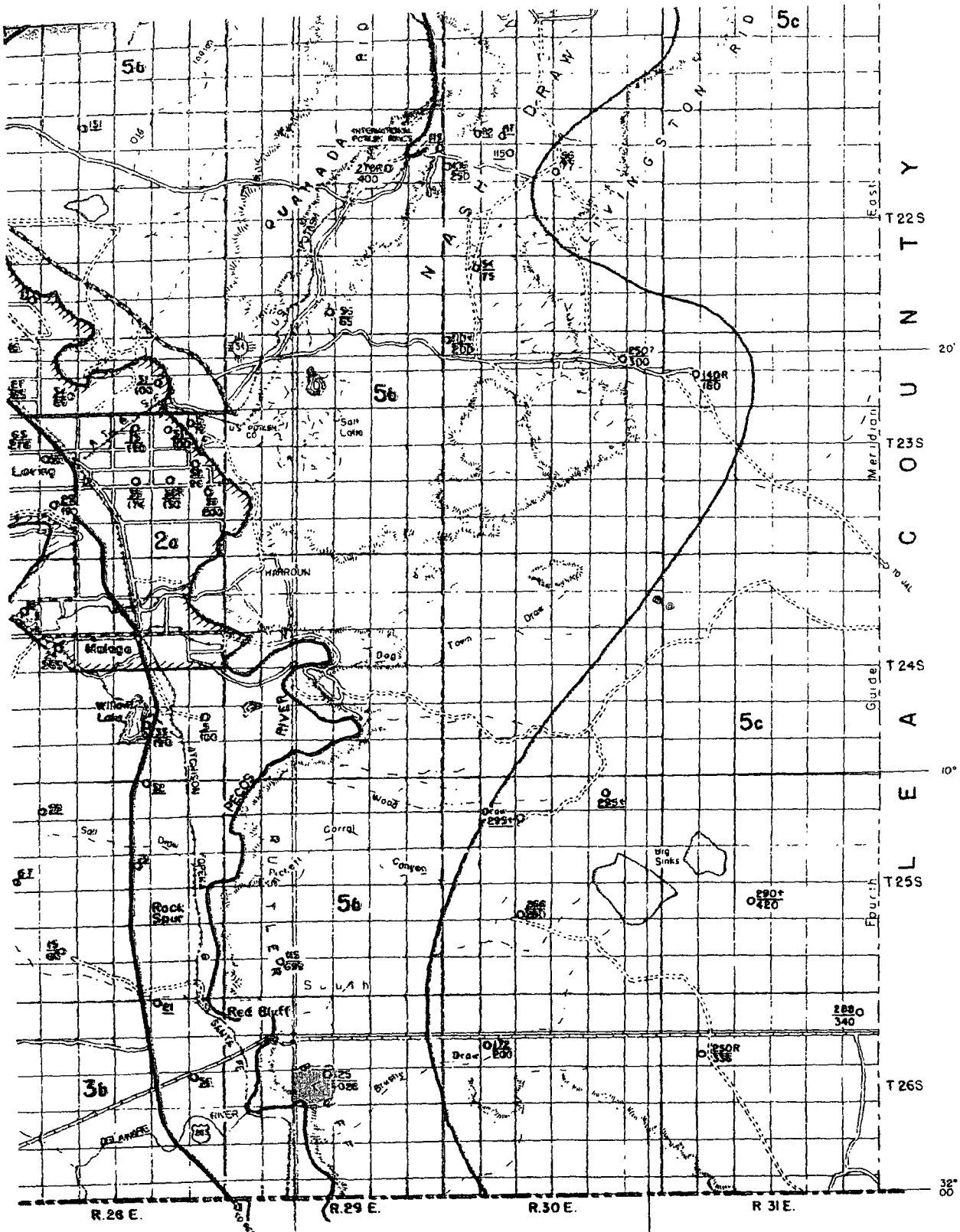
South East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

150 Average depth to groundwater (ft) - New Mexico State Engineer Well Reports

56 Groundwater Depth (ft) - Geology and Groundwater Resources of Eddy County, New Mexico (Report 3)

☐ Site Location



F GROUND WATER

EXICO

Note Most well depths are reported. Depths to water are measured except those followed by the letter R which are reported Measurements made 1947 to 1950

LOCATION NUMBER	WATER LEVEL: BELOW LAND SURFACE (feet)	WATER LEVEL: DATE OF MEASUREMENT	YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
26.28.13.110	56.0	Dec. 15, 1948	3	W	S	See analysis, Table 3.
26.29.16.220	125.0	Mar. 11, 1949	–	W	S	
26.30.8.110	172.0	Dec. 15, 1948	3 E.	W	S	Depth to water measured while pumping. See analysis, Table 3.
26.31.1.000	287.7	Mar. 10, 1949	–	W	S	East well of two. See analysis, Table 3.
8.310	250	–	–	W	D & S	See analysis, Table 3.
8.310a	278.5	Mar. 10, 1949	–	N	N	100 ft. southwest of above well.

See explanation at beginning of table.

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 26S Range: 29E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 09/01/2005

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
C	26S	29E	26				1	85	85	85

Record Count: 1

APPENDIX B
LAB ANALYSIS

LAB ANALYSIS
APRIL 30, 2008

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: April 30, 2008

Work Order: 8042515

Project Location: Eddy County, NM
Project Name: OXY/Dimaggio #1 TB
Project Number: 3376

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157899	T-1 2.0'	soil	2008-04-24	00:00	2008-04-25
157900	T-1 3.0'	soil	2008-04-24	00:00	2008-04-25
157904	T-2 3.0'	soil	2008-04-24	00:00	2008-04-25
157905	T-2 4.0'	soil	2008-04-24	00:00	2008-04-25
157906	T-2 5.0'	soil	2008-04-24	00:00	2008-04-25
157907	T-2 6.0'	soil	2008-04-24	00:00	2008-04-25
157908	T-3 2.0'	soil	2008-04-24	00:00	2008-04-25
157909	T-3 3.0'	soil	2008-04-24	00:00	2008-04-25
157910	T-3 4.0'	soil	2008-04-24	00:00	2008-04-25
157911	T-3 5.0'	soil	2008-04-24	00:00	2008-04-25

	BTEX				TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
157908 - T-3 2.0'	<0.0100	**0.0101**	<0.0100	<0.0100	<50.0	<1.00
157909 - T-3 3.0'	<0.0100	**0.0249**	<0.0100	<0.0100	<50.0	<1.00

Sample: 157899 - T-1 2.0'

Param	Flag	Result	Units	RL
Chloride		**1920**	mg/Kg	2.00

Sample: 157900 - T-1 3.0'

Param	Flag	Result	Units	RL
Chloride		**509**	mg/Kg	2.00

Sample: 157904 - T-2 3.0'

Param	Flag	Result	Units	RL
Chloride		**1730**	mg/Kg	2.00

Sample: 157905 - T-2 4.0'

Param	Flag	Result	Units	RL
Chloride		**2150**	mg/Kg	2.00

Sample: 157906 - T-2 5.0'

Param	Flag	Result	Units	RL
Chloride		**714**	mg/Kg	2.00

Sample: 157907 - T-2 6.0'

Param	Flag	Result	Units	RL
Chloride		**1800**	mg/Kg	2.00

Sample: 157908 - T-3 2.0'

Param	Flag	Result	Units	RL
Chloride		**599**	mg/Kg	3.25

Sample: 157909 - T-3 3.0'

Param	Flag	Result	Units	RL
Chloride		**1010**	mg/Kg	3.25

Sample: 157910 - T-3 4.0'

Param	Flag	Result	Units	RL
Chloride		**175**	mg/Kg	2.00

Sample: 157911 - T-3 5.0'

Param	Flag	Result	Units	RL
Chloride		**275**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: April 30, 2008

Work Order: 8042515

Project Location: Eddy County, NM
Project Name: OXY/Dimaggio #1 TB
Project Number: 3376

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157899	T-1 2.0'	soil	2008-04-24	00:00	2008-04-25
157900	T-1 3.0'	soil	2008-04-24	00:00	2008-04-25
157904	T-2 3.0'	soil	2008-04-24	00:00	2008-04-25
157905	T-2 4.0'	soil	2008-04-24	00:00	2008-04-25
157906	T-2 5.0'	soil	2008-04-24	00:00	2008-04-25
157907	T-2 6.0'	soil	2008-04-24	00:00	2008-04-25
157908	T-3 2.0'	soil	2008-04-24	00:00	2008-04-25
157909	T-3 3.0'	soil	2008-04-24	00:00	2008-04-25
157910	T-3 4.0'	soil	2008-04-24	00:00	2008-04-25
157911	T-3 5.0'	soil	2008-04-24	00:00	2008-04-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 157899 - T-1 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1920**	mg/Kg	50	2.00

Sample: 157900 - T-1 3.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**509**	mg/Kg	50	2.00

Sample: 157904 - T-2 3.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1730**	mg/Kg	50	2.00

Sample: 157905 - T-2 4.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2150**	mg/Kg	50	2.00

Sample: 157906 - T-2 5.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**714**	mg/Kg	50	2.00

Sample: 157907 - T-2 6.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1800**	mg/Kg	50	2.00

Sample: 157908 - T-3 2.0'

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	47923	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0101**	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.857	mg/Kg	1	1.00	86	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	59.2 - 162

Sample: 157908 - T-3 2.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47954	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41239	Sample Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**599**	mg/Kg	10	3.25

Sample: 157908 - T-3 2.0'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47932	Date Analyzed:	2008-04-29	Analyzed By:	RM
Prep Batch:	41218	Sample Preparation:	2008-04-29	Prepared By:	RM

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		132	mg/Kg	1	100	132	49.5 - 185

Sample: 157908 - T-3 2.0'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<1.00		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	1.00	134	78.5 - 139

Sample: 157909 - T-3 3.0'

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	47923	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		**0.0249**		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		<0.0100		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.943	mg/Kg	1	1.00	94	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	59.2 - 162

Sample: 157909 - T-3 3.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47954	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41239	Sample Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1010**		mg/Kg	10	3.25

Sample: 157909 - T-3 3.0'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47932	Date Analyzed:	2008-04-29	Analyzed By:	RM
Prep Batch:	41218	Sample Preparation:	2008-04-29	Prepared By:	RM

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		168	mg/Kg	1	100	168	49.5 - 185

Sample: 157909 - T-3 3.0'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	1	1.00	113	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	1.00	136	78.5 - 139

Sample: 157910 - T-3 4.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**175**	mg/Kg	50	2.00

Sample: 157911 - T-3 5.0'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47899	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41187	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**275**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 47898

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41186 | QC Preparation: 2008-04-29 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 47899

QC Batch: 47899 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41187 | QC Preparation: 2008-04-29 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 47923

QC Batch: 47923 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00347	mg/Kg	0.01
Toluene		<0.00525	mg/Kg	0.01
Ethylbenzene		<0.00607	mg/Kg	0.01
Xylene		<0.00724	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.816	mg/Kg	1	1.00	82	70.4 - 111
4-Bromofluorobenzene (4-BFB)	[1]	0.424	mg/Kg	1	1.00	42	42.4 - 99.7

Method Blank (1) QC Batch: 47924

QC Batch: 47924 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

[1] BFB surrogate recovery within control chart limits.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.974	mg/Kg	1	1.00	97	85 - 116
4-Bromofluorobenzene (4-BFB)		0.561	mg/Kg	1	1.00	56	45.2 - 98.8

Method Blank (1) QC Batch: 47932

QC Batch: 47932 | Date Analyzed: 2008-04-29 | Analyzed By: RM
Prep Batch: 41218 | QC Preparation: 2008-04-29 | Prepared By: RM

Parameter	Flag	MDL Result	Units	RL
DRO		<6.77	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		166	mg/Kg	1	100	166	49.5 - 185

Method Blank (1) QC Batch: 47954

QC Batch: 47954 | Date Analyzed: 2008-04-30 | Analyzed By: RG
Prep Batch: 41239 | QC Preparation: 2008-04-30 | Prepared By: RG

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Laboratory Control Spike (LCS-1)

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41186 | QC Preparation: 2008-04-29 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<0.500	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 47899 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41187 | QC Preparation: 2008-04-29 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.6	mg/Kg	1	100	<0.500	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 47923 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.911	mg/Kg	1	1.00	<0.00347	91	77.2 - 116
Toluene	0.904	mg/Kg	1	1.00	<0.00525	90	77.4 - 116
Ethylbenzene	0.908	mg/Kg	1	1.00	<0.00607	91	77.4 - 112
Xylene	2.72	mg/Kg	1	3.00	<0.00724	91	78.8 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.935	mg/Kg	1	1.00	<0.00347	94	77.2 - 116	3	20
Toluene	0.928	mg/Kg	1	1.00	<0.00525	93	77.4 - 116	3	20
Ethylbenzene	0.930	mg/Kg	1	1.00	<0.00607	93	77.4 - 112	2	20
Xylene	2.79	mg/Kg	1	3.00	<0.00724	93	78.8 - 111	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.911	0.914	mg/Kg	1	1.00	91	91	74.2 - 114
4-Bromofluorobenzene (4-BFB)	0.884	0.891	mg/Kg	1	1.00	88	89	75.7 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 47924 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.96	mg/Kg	1	10.0	<0.144	100	76.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.70	mg/Kg	1	10.0	<0.144	97	76.4 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.996	0.941	mg/Kg	1	1.00	100	94	80.3 - 113
4-Bromofluorobenzene (4-BFB)	0.972	0.953	mg/Kg	1	1.00	97	95	70.7 - 110

Laboratory Control Spike (LCS-1)

QC Batch: 47932 | Date Analyzed: 2008-04-29 | Analyzed By: RM
Prep Batch: 41218 | QC Preparation: 2008-04-29 | Prepared By: RM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	265	mg/Kg	1	250	<6.77	106	73.9 - 138

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	262	mg/Kg	1	250	<6.77	105	73.9 - 138	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	119	121	mg/Kg	1	100	119	121	49.5 - 185

Laboratory Control Spike (LCS-1)

QC Batch: 47954 | Date Analyzed: 2008-04-30 | Analyzed By: RG
Prep Batch: 41239 | QC Preparation: 2008-04-30 | Prepared By: RG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.1	mg/Kg	1	100	<1.80	99	96.8 - 103

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.7	mg/Kg	1	100	<1.80	100	96.8 - 103	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 157910

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41186 | QC Preparation: 2008-04-29 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5220	mg/Kg	50	5000	174.74	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5300	mg/Kg	50	5000	174.74	102	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 157935

QC Batch: 47899 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41187 | QC Preparation: 2008-04-29 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5390	mg/Kg	50	5000	223.14	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5450	mg/Kg	50	5000	223.14	104	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 157555

QC Batch: 47924 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO [2]	272	mg/Kg	20	10.0	240	320	40.1 - 154

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO [3]	313	mg/Kg	20	10.0	240	730	40.1 - 154	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.12	1.13	mg/Kg	20	1	112	113	16.6 - 155
4-Bromofluorobenzene (4-BFB) [4 5]	15.3	24.1	mg/Kg	20	1	1530	2410	40.1 - 176

Matrix Spike (MS-1) Spiked Sample: 157720

QC Batch: 47932 | Date Analyzed: 2008-04-29 | Analyzed By: RM
Prep Batch: 41218 | QC Preparation: 2008-04-29 | Prepared By: RM

[2] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[3] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[4] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[5] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	279	mg/Kg	1	250	<6.77	112	50.7 - 134

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	284	mg/Kg	1	250	<6.77	114	50.7 - 134	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	132	132	mg/Kg	1	100	132	132	49.5 - 185

Matrix Spike (MS-1) Spiked Sample: 158068

QC Batch: 47954 | Date Analyzed: 2008-04-30 | Analyzed By: RG
Prep Batch: 41239 | QC Preparation: 2008-04-30 | Prepared By: RG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	522	mg/Kg	10	500	23.1	100	76.4 - 123

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	508	mg/Kg	10	500	23.1	97	76.4 - 123	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47899 | Date Analyzed: 2008-04-29 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47899 Date Analyzed: 2008-04-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	95.9	96	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47923 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0927	93	85 - 115	2008-04-29
Toluene		mg/Kg	0.100	0.0910	91	85 - 115	2008-04-29
Ethylbenzene		mg/Kg	0.100	0.0917	92	85 - 115	2008-04-29
Xylene		mg/Kg	0.300	0.275	92	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47923 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0935	94	85 - 115	2008-04-29
Toluene		mg/Kg	0.100	0.0925	92	85 - 115	2008-04-29
Ethylbenzene		mg/Kg	0.100	0.0929	93	85 - 115	2008-04-29
Xylene		mg/Kg	0.300	0.279	93	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47924 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.920	92	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47924 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.954	95	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47932 Date Analyzed: 2008-04-29 Analyzed By: RM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	256	102	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47932 Date Analyzed: 2008-04-29 Analyzed By: RM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	271	108	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47954 Date Analyzed: 2008-04-30 Analyzed By: RG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-30

Standard (CCV-1)

QC Batch: 47954 Date Analyzed: 2008-04-30 Analyzed By: RG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2008-04-30

WO# 8042515

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 2

CLIENT NAME: Oxy

SITE MANAGER: ? Tavarez

PROJECT NO.: 3376

PROJECT NAME: Oxy / Dimaggio #1 TB Eddy Co. NM.

ANALYSIS REQUEST (Circle or Specify Method No.): BTEX 8021B, TPH 8015 MOD. TX1005 (Ext. to C35), PAH 8270, RCRA Metals Ag As Ba Cd Cr Pb Hg Se, TCLP Metals Ag As Ba Cd Vr Pd Hg Se, TCLP Volatiles, TCLP Semi Volatiles, RCI, GC.MS Vol. 8240/8260/624, GC.MS Semi. Vol. 8270/625, PCB's 8080/608, Pest. 808/608, Chloride (circled), Gamma Spec., Alpha Beta (Air), PLM (Asbestos), Major Anions/Cations, pH, TDS

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	Analysis
157898	4-24-08		S		✓	T-1 (1.0')	1				✓		Hold
899	↓		S		✓	T-1 (2.0')	1				✓		Chloride X
900			S		✓	T-1 (3.0)	1				✓		Chloride X
901			S		✓	T-1 (4.0)	1				✓		Hold
902			S		✓	T-2 (1.0)	1				✓		Hold
903			S		✓	T-2 (2.0)	1				✓		Hold
904			S		✓	T-2 (3.0)	1				✓		Chloride X
905			S		✓	T-2 (4.0)	1				✓		Chloride X
906			S		✓	T-2 (5.0)	1				✓		Chloride X
907	↓		S		✓	T-2 (6.0)	1				✓		Chloride X

RELINQUISHED BY: (Signature) [signature] Date: 4/25/08 Time: 9:40
RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) ? Tavarez Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

HIGHLANDER CONTACT PERSON: [signature]

Results by:

RUSH Charges Authorized: Yes No (circled)

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature] DATE: 4/25/08 TIME: 9:40

SAMPLE CONDITION WHEN RECEIVED: 3.2 intact

REMARKS: all tests - Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

WO # 8042515

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 2

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Oxy

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3376

PROJECT NAME: Oxy Dimaggio #1 TB
Eddy Co NM.

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
157908	4-24-08		S		G	T-3 (2.0)	1				✓		X	X											X			
909	↓		S		G	T-3 (3.0')	1				✓		X	X											X			
910	↓		S		G	T-3 (4.0')	1				✓														X			
911	↓		S		G	T-3 (5.0')	1				✓														X			

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 4/25/08 Time: 9:40	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) Ike Tavarez Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #: OTHER:

RECEIVING LABORATORY: Trace

ADDRESS: CITY: STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) DATE: 4/25/08 TIME: 9:40

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes (No)

SAMPLE CONDITION WHEN RECEIVED: 3.2 intact

REMARKS: all tests - midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

LAB ANALYSIS
MAY 29, 2008

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: May 29, 2008

Work Order: 8052235

Project Location: Eddy County, NM
Project Name: OXY/Dimaggio TB
Project Number: 3376

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
160960	#2 8.0'	soil	2008-05-19	00:00	2008-05-22
160961	#2 10.0'	soil	2008-05-19	00:00	2008-05-22

Sample: 160960 - #2 8.0'

Param	Flag	Result	Units	RL
Chloride		**1500**	mg/Kg	2.00

Sample: 160961 - #2 10.0'

Param	Flag	Result	Units	RL
Chloride		**681**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
200 East Sunset Road, Suite E | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•4944
5002 Basin Street, Suite A1 | Midland, Texas 79703 | | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: May 29, 2008

Work Order: 8052235

Project Location: Eddy County, NM
Project Name: OXY/Dimaggio TB
Project Number: 3376

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
160960	#2 8.0'	soil	2008-05-19	00:00	2008-05-22
160961	#2 10.0'	soil	2008-05-19	00:00	2008-05-22

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX
El Paso - NELAP T104704221-08-TX

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project OXY/Dimaggio TB were received by TraceAnalysis, Inc. on 2008-05-22 and assigned to work order 8052235. Samples for work order 8052235 were received intact at a temperature of 3.2 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Chloride (Titration)	SM 4500-Cl B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8052235 since the sample was chosen at random.. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 160960 - #2 8.0'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	48805	Date Analyzed:	2008-05-28	Analyzed By:	AR
Prep Batch:	41939	Sample Preparation:	2008-05-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1500**	mg/Kg	50	2.00

Sample: 160961 - #2 10.0'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	48830	Date Analyzed:	2008-05-28	Analyzed By:	AR
Prep Batch:	41963	Sample Preparation:	2008-05-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**681**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 48805

QC Batch:	48805	Date Analyzed:	2008-05-28	Analyzed By:	AR
Prep Batch:	41939	QC Preparation:	2008-05-22	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 48830

QC Batch:	48830	Date Analyzed:	2008-05-28	Analyzed By:	AR
Prep Batch:	41963	QC Preparation:	2008-05-22	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch: 48805 | Date Analyzed: 2008-05-28 | Analyzed By: AR
Prep Batch: 41939 | QC Preparation: 2008-05-22 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.6	mg/Kg	1	100	<0.500	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 48830 | Date Analyzed: 2008-05-28 | Analyzed By: AR
Prep Batch: 41963 | QC Preparation: 2008-05-22 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<0.500	103	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 160960

QC Batch: 48805 | Date Analyzed: 2008-05-28 | Analyzed By: AR
Prep Batch: 41939 | QC Preparation: 2008-05-22 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	6410	mg/Kg	50	5000	1503.34	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	6760	mg/Kg	50	5000	1503.34	105	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 161252

QC Batch: 48830 | Date Analyzed: 2008-05-28 | Analyzed By: AR
Prep Batch: 41963 | QC Preparation: 2008-05-22 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13700	mg/Kg	50	5000	8612	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13800	mg/Kg	50	5000	8612	104	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 48805 | Date Analyzed: 2008-05-28 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2008-05-28

Standard (CCV-1)

QC Batch: 48805 | Date Analyzed: 2008-05-28 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-05-28

Standard (ICV-1)

QC Batch: 48830 | Date Analyzed: 2008-05-28 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2008-05-28

Standard (CCV-1)

QC Batch: 48830 | Date Analyzed: 2008-05-28 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-05-28

WO# 80522335

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Oxy

SITE MANAGER: ~~IKE~~ Tavarez

PROJECT NO.: 3376

PROJECT NAME: Oxy / Dimaggio YB
Eddy Co. NM.

LAB I.D. NUMBER	DATE	TIME	MATRIX	# CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLE IDENTIFICATION	BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi Vol. 8270/625	PCB's 8080/608	Pest. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
160960	5-19-08		S	1				✓		#2 8.0'														X			
160961	5-19-08							✓		#2 10.0'														X			

RELINQUISHED BY: (Signature)	Date: 5/22/08 Time: 1345	RECEIVED BY: (Signature)	Date: 5/22/08 Time: 1345
SAMPLED BY: (Print & Sign)	Date: Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL # HAND DELIVERED UPS OTHER:			
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RECEIVING LABORATORY: Trace		RECEIVED BY: (Signature)	
ADDRESS:			
CITY: STATE: ZIP:		DATE: TIME:	
CONTACT: PHONE:			
HIGHLANDER CONTACT PERSON: Ike Tavarez		Results by:	
		RUSH Charges Authorized: Yes No	
SAMPLE CONDITION WHEN RECEIVED: Good / Intact 3.2°	MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other	REMARKS: all tests - Midland	

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

APPENDIX C
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 Pogo Producing Co.	Contact PAT Ellis
Address P.O. Box 10340 Midland, TX 79702	Telephone No. (432) 685-8100
Facility Name D'Maggio Tank Battery	Facility Type Tank Battery

Surface Owner	Mineral Owner	Lease No. NM-1800

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	16	26S	29E	1650	South	1693	East	Eddy

Latitude 32 02 24.2N Longitude 103 59 10.9 W

NATURE OF RELEASE

Type of Release Oil	Volume of Release 40 BBLS	Volume Recovered 35 BBLS
Source of Release Tank Battery	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom? 12-7-07 11:45 AM NMOCD Gerry Guye 12-7-07 12:15 PM BLM Terry 12-7-07 12:15 pm	
By Whom? Johnny Burnett	Date and Hour 12-7-07 12:15 PM	
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.*

Oil production being produced to oil tank, tank filled up and equalizing line plugged up and allowed 40 BBLS of oil to overflow.

Describe Area Affected and Cleanup Action Taken.*

Vacuum truck was called and recovered 35 BBLS of oil. Backhoe was utilized to pick up and remove saturated soil. Highlander Environmental will take soil samples and review for closure workplan.

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: Patrick L. Ellis	OIL CONSERVATION DIVISION
Printed Name: PATRICK L. ELLIS	Approved by District Supervisor:
Title: EH+S Supervisor	Approval Date: / Expiration Date:
E-mail Address: ellispl@pogoproducing.com	Conditions of Approval: / Attached ☐
Date: 1-22-08 Phone: (432) 685-8100	

* Attach Additional Sheets If Necessary