Pat E,

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 ~~Latigo Petroleum, Inc.~~ OXY	Contact Lisa Hunt
Address P.O. Box 10340 Midland, TX 79702-7340	Telephone No. (432)685-8229
Facility Name Ainsworth Tank Battery well #1	Facility Type Tank Battery

Surface Owner	Mineral Owner	~~Lease No. 62439~~

API 30-025-23085

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	35	9S	33E	660	East	1980	North	Lea

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release Oil spill	Volume of Release 40 bbls	Volume Recovered 10 bbls
Source of Release 1 in ball valve on circ pump	Date and Hour of Occurrence 11/29/07	Date and Hour of Discovery 11/29/07 @ 12 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Richards	
By Whom? Lisa Hunt	Date and Hour 11/29/07 @ 4pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
I in ball valve froze and split on ciruclating pump. Replace ball valve.

Describe Area Affected and Cleanup Action Taken.*
Ran down lease road about 75 yards. Backhoe will clean up.

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: Lisa Hunt	OIL CONSERVATION DIVISION
Printed Name: Lisa Hunt	Approved by District Supervisor: Johnson ENVIRONMENTAL ENGINEER
Title: Permit Specialist	Approval Date: 10-5-08 Expiration Date: —
E-mail Address: lhunt@pxp.com	Conditions of Approval: — Attached ☐ IRP # 1675
Date: 11/29/2007 Phone: (432)685-8229	

* Attach Additional Sheets If Necessary

TETRA TECH

September 2, 2008

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division – District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Assessment Report for the OXY USA, Inc., Ainsworth Tank Battery, Unit H, Section 35, Township 9 South, Range 33 East, Tank Battery Release, Lea County, New Mexico.

Dear Mr. Johnson:

Tetra Tech (Formerly Highlander Environmental Corp.) was contacted by Plains Exploration and Production Company (Plains) to assess a spill from the Ainsworth Tank Battery, located in Unit H, Section 35, Township 9 South, Range 33 East, Lea County, New Mexico (Site). The spill site coordinates are N 32° 29' 30.18", W 103° 32' 0.60". According to the State of New Mexico C-141 Initial Report, approximately 40 barrels (bbls) of oil were released when a ball valve on the circulating pump failed on November 29, 2007. Of the 40 barrels released, 10 barrels were recovered. The State of New Mexico C-141 Initial is included in Appendix C. The Site is shown on Figure 1and Figure 2. As of March 1, 2008, OXY USA, Inc. (OXY) has retained the operating responsibilities of the site.

Groundwater and Regulatory

The New Mexico State Engineer's Office database showed no wells located in Section 35. However data collected from drilling at the site indicated groundwater was reported at a depth of 50 feet below ground surface.

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 RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 100 mg/kg.

Tetra Tech
1910 North Big Spring, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Assessment and Results

On December 27, 2007, Highlander personnel inspected and sampled the spill area located within the diked berm and to the southwest of the berm. The spill area measured approximately 35' x 12' within the berm and 420' x 11' outside the berm. A total of eight (8) auger holes (AH-1 through AH-8) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Of the samples collected, the TPH concentrations exceeded the RRAL in AH-2 to a depth of 1 foot, AH-3, AH-5, AH-6, AH-7, and AH-8 to a depth of 6 inches bgs. All three of the samples selected for BTEX (AH-6 through AH-8) were above the RRAL of 50 ppm total BTEX. The chloride concentrations were all below 100 mg/kg with the exception of AH-2 at a depth of 0 to 1 foot bgs, which had a chloride concentration of 1,800 mg/kg. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix A. The auger hole locations are shown in Figure 3. The results of the sampling are summarized in Table 1.

In order to complete delineation of the site, on January 17 and 29, 2008, B&R Trucking, Inc. of Carlsbad, New Mexico was onsite to trench four locations (T-1 through T-4) in the spill area. Trenches T-1 to T-3 were placed between auger holes AH-5 and AH-8, while Trench T-4 was placed at auger hole AH-2. Select samples were analyzed for TPH, BTEX, and chlorides. Of the samples collected, the TPH concentrations exceeded the RRAL at T-1 at a depth of 2.0 feet bgs and T-3 at a depth of 1 foot bgs with results of 391 mg/kg and 406 mg/kg, respectively. All BTEX samples were below the RRAL. The chloride concentration in T-4 remained elevated throughout the column with a result of 1,720 mg/kg at 7.0 feet bgs. Copies of the laboratory analysis and chain-of-custody documentation are included in Appendix A. The trench locations are shown on Figure 4. The results of the sampling are summarized in Table 1.

During the week of January 21, 2008, B&R Trucking was onsite to excavate and remove the soils which exceeded 100 mg/kg TPH within the spill area. The spill area was trenched to a depth of 2 to 3 feet bgs and the soils stockpiled on plastic adjacent to the site. On January 29 to 30, 2008, approximately 380 cubic yards of soil were transported offsite for disposal at Gandy-Marley, Inc. located in Roswell, New Mexico.

In order to complete delineation of the chlorides adjacent to trench T-4, on February 6, 2008 Scarborough Drilling, Inc. of Lamesa, Texas was onsite to install one soil boring (SB-1) in the vicinity of T-4. Soil samples were collected at 5-foot intervals, starting at 10 feet bgs, utilizing a split spoon sampler. The samples were submitted to the laboratory for analysis of chlorides. The chloride concentration increased with depth ranging from 771 mg/kg at 10 feet bgs to 1,870 mg/kg at 20 feet bgs. On August 25, 2008, the boring was redrilled and extended to a depth of 45 feet bgs with samples collected at 5-foot intervals, starting at 20 feet bgs. Analytical results indicate chloride

concentrations decreased with depth to less then 250 mg/kg at 45 feet bgs. Copies of the laboratory analysis and chain-of-custody documentation are included in Appendix A. The soil boring log is included in Appendix B. The results of the sampling are summarized in Table 1.

Conclusions

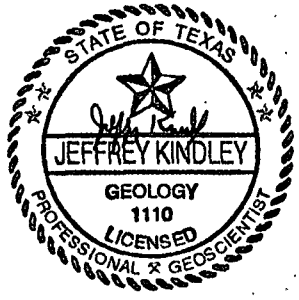
The initial impacted area was confined to a 35' x 12' area within the berm and 420' x 11' area outside the berm. The first 2 to 3 feet of soils were excavated and transported offsite for disposal. No remaining TPH or BTEX concentrations currently exceed the RRAL. No chloride concentrations from the initial release of November 29, 2007 were above 100 mg/kg. However, historic chloride concentrations only in the vicinity of AH-2 (SB-1) exceeding 250 mg/kg remain to a maximum depth of 40 feet bgs with concentrations less than 250 mg/kg at 45 feet bgs. Based on the depth to groundwater at 50 feet bgs, the small areal extent of the chloride impact, a proposed impervious liner to prevent further downward migration of chlorides, and the decreasing chloride concentrations with depth, it appears the residual chloride concentrations do not pose an imminent threat to groundwater.

The remaining chloride impacted area is located within an active tank battery adjacent to a heater treater. Soils below 3 feet consist of a hard limestone layer which is not conducive of further excavation without risking possible damage to surrounding equipment. As such, OXY proposes to excavate a 10' x 10' x 3' area and install a 20 mil liner at 3 feet bgs in order to impede further migration of chlorides through the soil. Upon completion of the liner, a final C-141 will be submitted along with a closure letter to the NMOCD. If you require any additional information or have any questions or comments concerning this Assessment Report, please call at (432) 682-4559.

Respectfully submitted,
Tetra Tech

Jeffrey Kindley, P.G.
SeniorEnvironmental Geologist

cc: Mark Anderson – OXY USA, Inc.



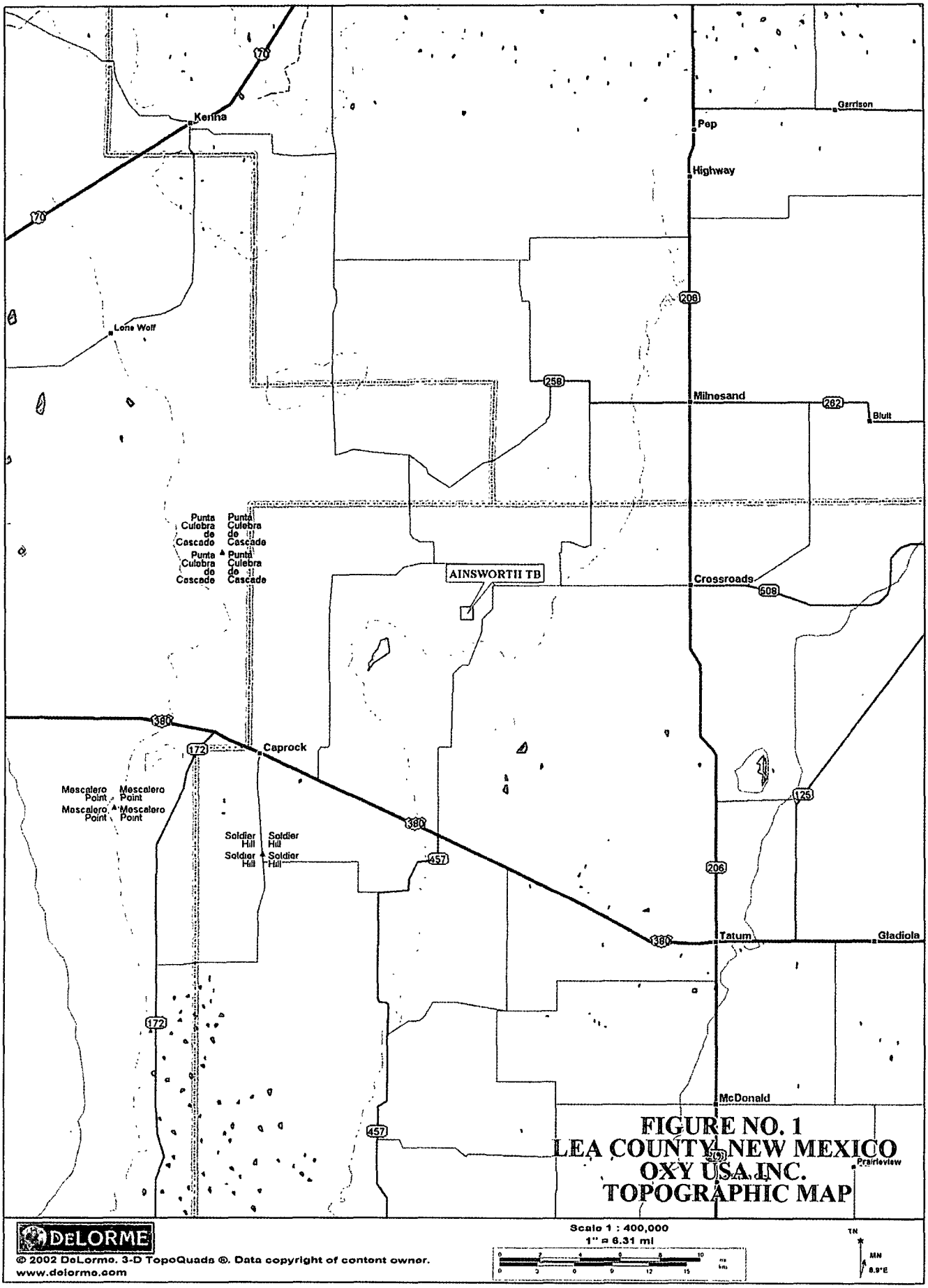


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
OXY USA INC.
TOPOGRAPHIC MAP

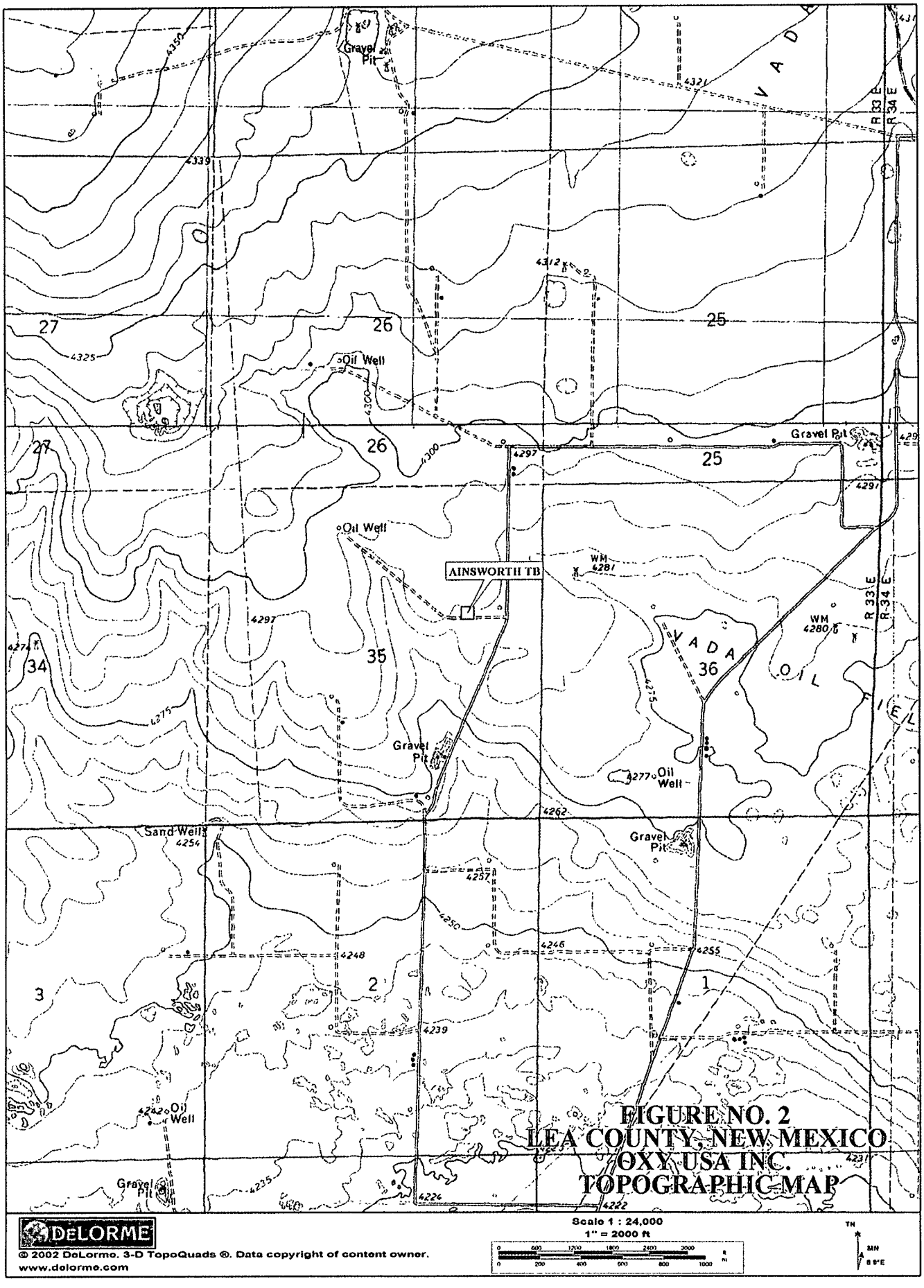
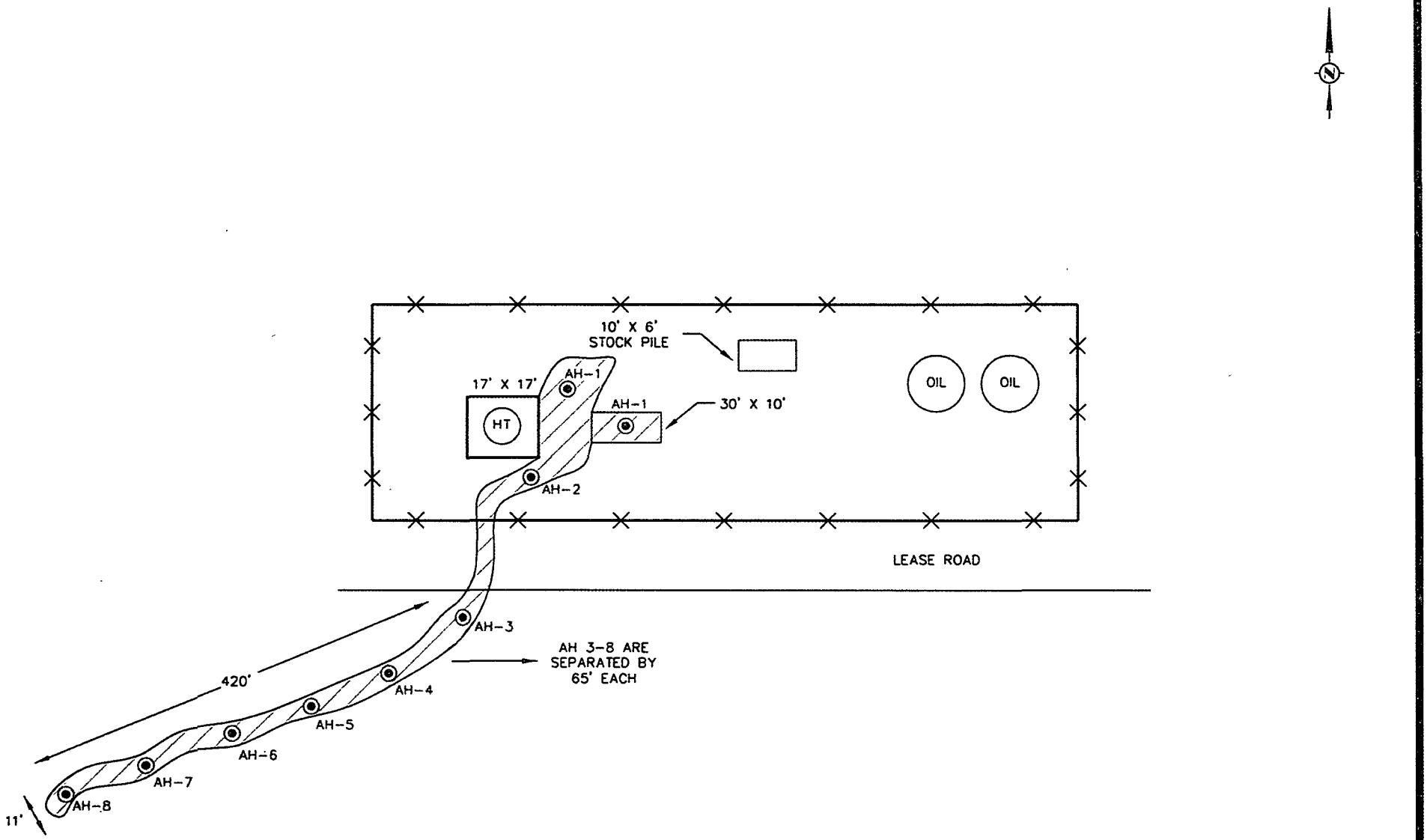


FIGURE NO. 2
LEA COUNTY, NEW MEXICO
OXY USA INC.
TOPOGRAPHIC MAP



NOT TO SCALE

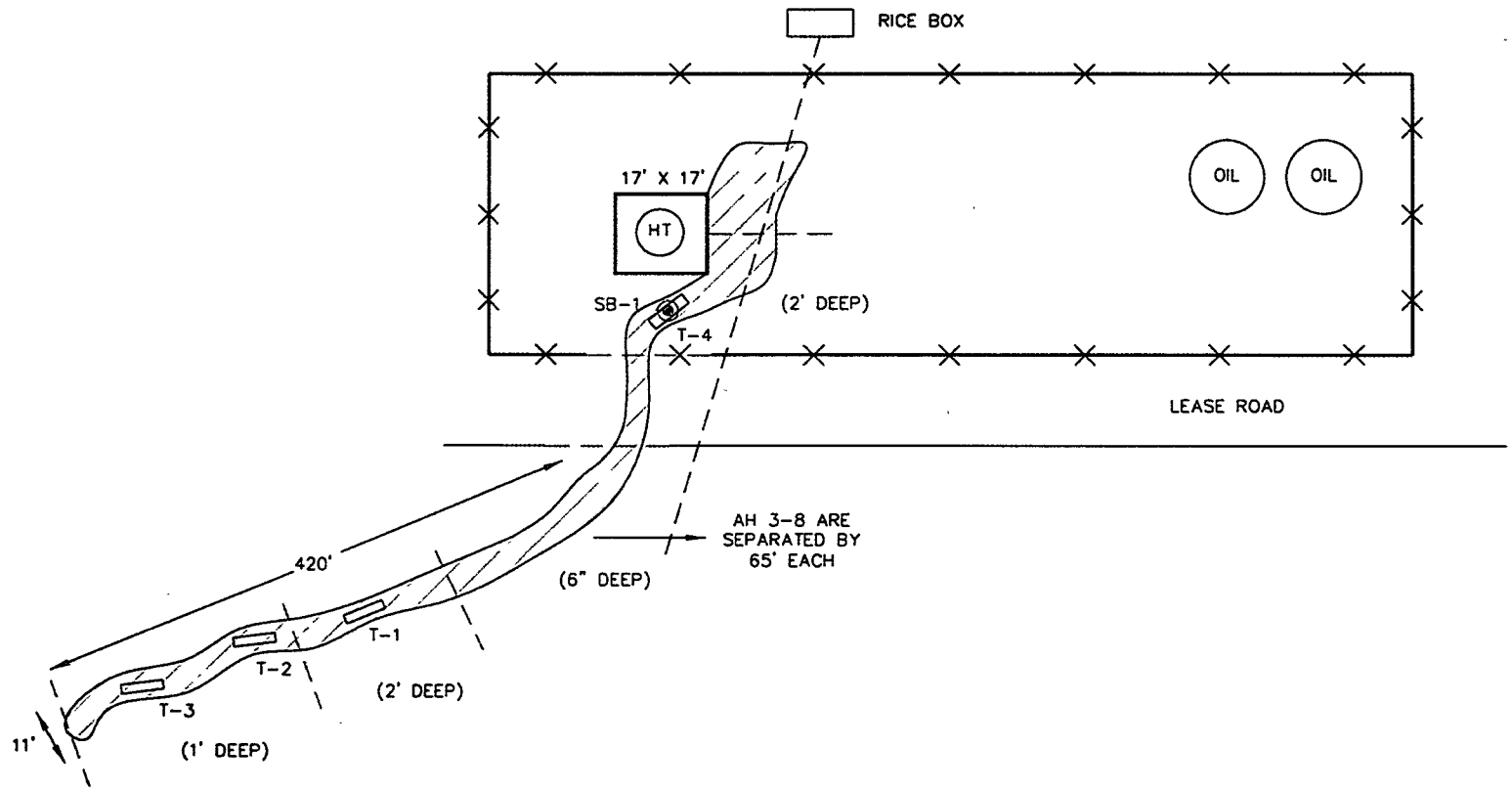
FIGURE NO. 3

LEA COUNTY, NEW MEXICO

OXY USA INC.
AINSWORTH TB
AUGER HOLE LOCATIONS

DATE: 1/2/07
DWN. BY: RC
FILE: C:\P0007\2617\AINSWORTH

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS



BORE HOLE
SPILL AREA
TRENCH LOCATION

NOT TO SCALE

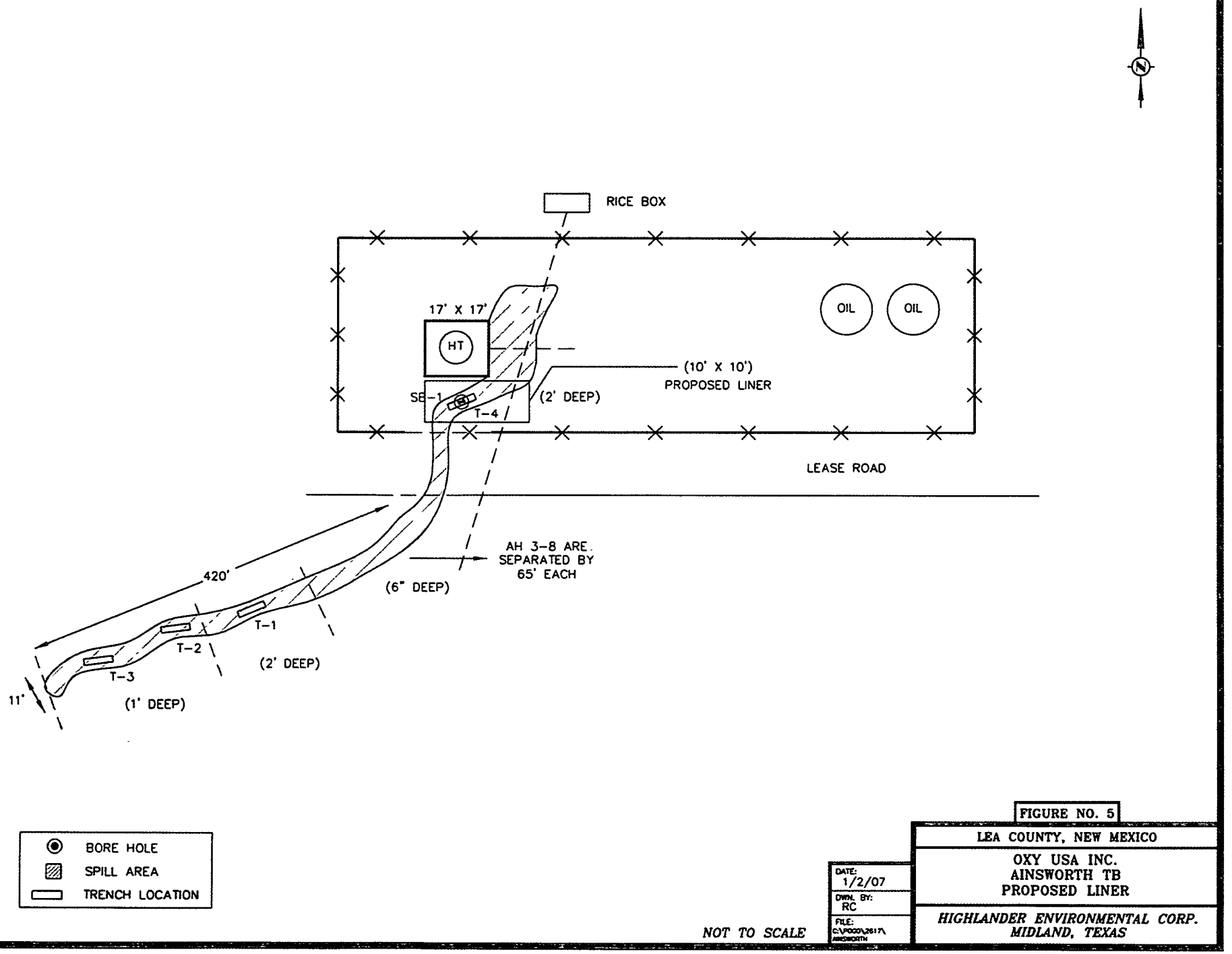
FIGURE NO. 4

LEA COUNTY, NEW MEXICO

OXY USA INC.
AINSWORTH TB
TRENCH/SOIL BORING LOCATIONS

DATE: 1/2/07
DWN. BY: RC
FILE: C:\P000\2617\AINSWORTH

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS


RICE BOX
17' X 17'
HT
OIL
OIL
(10' X 10')
PROPOSED LINER
SB-1
(2' DEEP)
T-4
LEASE ROAD
AH 3-8 ARE
SEPARATED BY
65' EACH
420'
(6" DEEP)
T-1
T-2
T-3
(2' DEEP)
11'
(1' DEEP)
BORE HOLE
SPILL AREA
TRENCH LOCATION
NOT TO SCALE
DATE: 1/2/07
DWN. BY: RC
FILE: C:\P000\2617\AINSWORTH
FIGURE NO. 5
LEA COUNTY, NEW MEXICO
OXY USA INC.
AINSWORTH TB
PROPOSED LINER
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

TABLE

Table 1
OXY USA, Inc.
Ainsworth Tank Battery
Lea County, NM

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					
Tank Battery												
AH-1	X		12/07/07	0-1	<50.0	42.8	42.8	-	-	-	-	<100
AH-2		X	12/07/07	0-1	1350	340	1690	-	-	-	-	1800
Pasture Area												
AH-3		X	12/07/07	0-6"	811	160	971	-	-	-	-	<100
AH-4	X		12/07/07	0-6"	<50.0	17.3	17.3	-	-	-	-	<100
AH-5		X	12/07/07	0-6"	10600	149	10749	-	-	-	-	<100
AH-6		X	12/07/07	0-6"	19200	3290	22490	35.3	199	78.6	323	<100
AH-7		X	12/07/07	0-6"	21100	2900	24000	9.55	95.6	52.3	233	<100
AH-8		X	12/07/07	0-6"	17200	2690	19890	7.02	89.7	45.2	197	<100
T-1		X	01/17/08	1.0	12800	6070	18870	-	-	-	-	-
T-1		X	01/17/08	1.5	1140	1820	2960	-	-	-	-	-
T-1		X	01/17/08	2.0	270	121	391	0.0400	0.344	0.286	1.62	-
T-2	X		01/17/08	1.0	<50.0	6.81	6.81	0.0139	0.0181	<0.0100	0.0360	-
T-3		X	01/17/08	1.0	250	156	406	0.0909	1.04	0.604	4.78	-
Tank Battery												
T-4		X	01/17/08	1.5	<50.0	6.49	6.49	-	-	-	-	2440
T-4		X	01/17/08	2.0	-	-	-	-	-	-	-	1970
T-4	X		01/29/08	3.0	-	-	-	-	-	-	-	1200
T-4	X		01/29/08	4.0	-	-	-	-	-	-	-	972
T-4	X		01/29/08	5.0	-	-	-	-	-	-	-	924
T-4	X		01/29/08	6.0	-	-	-	-	-	-	-	1800
T-4	X		01/29/08	7.0	-	-	-	-	-	-	-	1720
SB-1	X		02/06/08	8-10	-	-	-	-	-	-	-	771
SB-1	X		02/06/08	13-15	-	-	-	-	-	-	-	1480
SB-1	X		02/06/08	18-20	-	-	-	-	-	-	-	1870
SB-1	X		08/25/08	23-25	-	-	-	-	-	-	-	832
SB-1	X		08/25/08	28-30	-	-	-	-	-	-	-	421
SB-1	X		08/25/08	33-35	-	-	-	-	-	-	-	523
SB-1	X		08/25/08	38-40	-	-	-	-	-	-	-	315
SB-1	X		08/25/08	43-45	-	-	-	-	-	-	-	188

(-) Not Analyzed