REMEDIATION PROPOSAL EXTON MOBIL N. G. PENROSE TANK BATTERY NO. 1

NMOCD REF: 1RP-1135 EPI REF: #190027

UL-G (SW¼ OF THE NE¼) OF SECTION 13, T22S, R37E ~4.1 Miles Southwest of Eunice, Lea County, New Mexico

LATITUDE: N 32° 23' 40.83"

LONGITUDE: W 103° 06' 54.10"

DECEMBER 2006

PREPARED BY:



ENVIRONMENTAL PLUS, INC. 2100 AVENUE O EUNICE, NEW MEXICO 88231

PREPARED FOR:







15 December, 2006

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



RE: Remediation Proposal
Exxon Mobil – N. G. Penrose Tank Battery #1
UL-G SW ¼ of the NE ¼ Section 13, T 22 S, R 37 E
Longitude: 32° 23' 40.83"; Latitude: 103° 06' 54.10"
NMOCD Ref. #1RP-1135; EPI Ref. #190027

Dear Mr. Johnson:

On October 24, 2006 at 12:00 p.m. approximately 17-barrels (bbls) of produced water and 16bbls of petroleum products were released from a heater treater due to a malfunction. Approximately 15-bbls of water and 15-bbls of petroleum product were recovered. The combined fluid covered the fenced area surrounding the tank battery and flowed onto the caliche pad and road. ExxonMobil retained the services of Environmental Plus, Inc., (EPI) to respond to an Emergency Call to contain the release. After containing and stockpiling the surface impacted soil, EPI delineated the vertical and horizontal extent of impacted soil at the Site. This letter report documents the results of the delineation activities and provides a Remediation Proposal.

Site Background

The Site is located in UL-G SW ¼ of the NE ¼ of Section 13, T22S, R37E at an approximate elevation of 3,337 feet above mean sea level (amsl). The property is owned by Mr. Tom Kennann. A search for water wells was completed utilizing the <u>New Mexico Office of the State Engineers</u> 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 72 feet below ground surface (bgs). Based on available information, it was determined the distance between the impacted soil and groundwater is less than 70 feet. Utilizing this information, the 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 | 1,000 parts per million |

2100 AVENUE O

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

EUNICE, NEW MEXICO 88231

P.O. BOX 1558

TELEPHONE 505+394+3481 +++ FAX 505+394+2601



Field Work

EPI responded to an Emergency Call from ExxonMobil on October 24, 2006. The surface area was remediated by use of soil to stabilize produced water and petroleum products. The impacted soil was placed on a polyethylene barrier to dry and prevent additional contamination. To the extent physically possible, impacted soil was excavated from the bermed enclosure and placed on the polyethylene barrier. EPI continued working on the Site through October 25, 2006.

On December 8, 2006 EPI mobilized at the Site to direct the locale and depth of two (2) soil borings. Owing to limited unconfined area within the TB due to piping, steel tanks and the heater treater, the soil borings were advanced on the caliche pad and road (reference *Figure 4*). During advancement of the soil borings, samples were collected at two (2) foot intervals initially and then a five (5) foot increments thereafter. Information regarding the lithology of the soil borings is provided in Attachment III, *Soil Boring Logs*. A portion of each soil sample was field analyzed for organic vapors and chloride concentrations. Samples collected for field testing of organic vapors were placed in a self-sealing polyethylene bag and allowed to equilibrate to ~70° F. The samples were then tested for organic vapor concentrations utilizing an MiniRaeTM photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp. Chloride concentrations were analyzed in the field with use of a LaMotte Chloride Kit.

Soil samples designated for laboratory analyses were immediately placed in a laboratory provided container, cooled by use of frozen water bottles and shipped to Cardinal Laboratory, Hobbs, New Mexico, for quantification of BTEX (benzene, toluene, ethylbenzene and total xylenes); Gasoline Range Organics (GRO) and Diesel Range Organics (GRO); chloride and sulfate concentrations.

Analytical Data

Field analyses of organic vapor concentrations in Soil Boring No. 1 (SB-1) indicated a range from 3.4 mg/Kg (15-ft bgs) to 70 mg/Kg (2-ft bgs) while Soil Boring No. 2 (SB-2) ranged from 0.3 mg/Kg (15-ft bgs) to 74.6 mg/Kg (2-ft bgs). Chloride concentrations in SB-1 ranged from 160 mg/kg (15-ft bgs) to 180 mg/Kg (2-ft bgs) and in SB-2 from 160 mg/Kg (15-ft bgs) to 240 mg/Kg (2-ft bgs) (reference *Table 2*).

Laboratory analytical results confirmed BTEX and TPH concentrations were not at or above laboratory analytical method detection limits (MDL) for both Soil Borings. Sulfate concentrations in SB-1 ranged from 46 mg/Kg (5-ft bgs) to 318 mg/Kg (2-ft bgs) and in SB-2 from 33.1 mg/Kg (5-ft bgs) to 132 mg/Kg (2-ft bgs). Chloride concentrations in SB-1 ranged from 16 mg/Kg (15-ft bgs) to 80 mg/Kg (2-ft bgs) and in SB-2 from <16 mg/Kg (5-ft bgs) to 96 mg/Kg (2-ft bgs). Sulfate and chloride concentrations were below NMOCD Threshold Goals of 600 mg/Kg and 250 mg/Kg, respectively (reference *Table 2*).

Overall assessment of both field analyses and laboratory analytical results indicate BTEX, TPH, sulfate and chloride concentrations are either not detected at or above laboratory analytical MDL or were below NMOCD Remedial Threshold goals (reference *Table 2*).



Site Remedial Proposal

Based on field analyses and laboratory analytical results, the area outside the TB fenced and bermed enclosure will require little remediation effort. However, EPI proposes the top two (2) feet of material be excavated and disposed at Sundance Services, Inc., Eunice, New Mexico. Imported caliche will be used to backfill the excavation. The area will be contoured to allow natural drainage.

The release area located within the fenced section of the TB area will require concentrated remedial activity. Despite the lack of site specific laboratory analytical data, the interior area contains impacted soil from the release of October 24, 2006 as well as historical releases. To differentiate between the two different strata would require considerable effort. Therefore, EPI on behalf of ExxonMobil recommends the following remedial activities be undertaken:

- Excavate the interior release area to a minimum depth of two (2) feet or to a depth where TPH concentrations do not exceed 1,000 mg/Kg. In areas where physical constraints (pipelines, tankage, heater treater, etc.) are present, a Hydro-Excavator will be employed to prevent damage to the infrastructure. Suitable construction equipment will be used to excavate open, unconfined areas. Excavation will be confined to the release area, but extended to dimensions necessary for sidewalls and bottom to meet NMOCD Remedial Threshold Goals. The bottom and sidewalls of the excavated area will be field analyzed for both organic vapor and chloride concentrations to assist in defining the required excavation depth and width. Final soil samples will be sent to an independent laboratory to confirm field analyses results. Impacted soil will be disposed at Sundance Services, Inc., Eunice, New Mexico.
- 2. Upon receipt of laboratory analytical results confirming NMOCD Remedial Threshold Goals have been achieved, the excavation is to be backfilled with caliche free of clumps greater than one (1) inch in diameter. Backfill in the excavation will extend to original interior surface elevation. In areas of infrastructure constraints, backfill operations will require the use of manual labor. Compaction of the caliche in these areas will be accomplished by mechanical means (flat plate vibratory compactors, pneumatic tampers, etc.). Suitable construction equipment will be used to backfill and compact caliche in open, unconfined areas.

The above described remedial activities to the TB interior and exterior areas are designed to meet NMOCD site specific Remedial Threshold Goals with respect to the release of October 24, 2006. Remediation of the entire TB area will be accomplished when it is abandoned and decommissioned.

Should you have any technical questions or concerns, please contact me at (505) 394-3481 or via email at <u>dduncan@envplus.net</u>. Upon approval, EPI will initiate the next phase of the site remediation. Official correspondence should be submitted to Mr. Shelby Pennington at (432) 266-1454 (mobile), (432) 596-4211 ext. 26 (office) or via email at <u>shelby.g.pennington@exxonmobil.com</u>.

Sincerely,

ENVIRONMENTAL PLUS, INC.

() me

David P. Duncan Civil Engineer

Cc: Shelby Pennington, Exxon Mobil Corporation Tom Kennann, Land Owner

Encl: Figure 1 – Area Map

Figure 2 – Site Location Map

Figure 3 – Site Map

Figure 4 – Soil Boring Map

Table 1 – Well Data

Table 2 - Summary of Soil Boring Field Analyses and Laboratory Analytical Results

Attachment I – Site Photographs

Attachment II – Laboratory Analytical Results and Chain-of-Custody Form

Attachment III – Soil Boring Logs

Attachment IV - Copy of Initial C-141

FIGURES









TABLES

TABLE 1

Well Data

ExxonMobil - N.G. Penrose Tank Battery #1 (Ref # 190027)

| Well Number | Diversion ^A | Owner | Use | Twsp | Rng | Sec a a a | Latitude | Lonoitude | Date | Surface | Depth to Water |
|-------------|------------------------|--------------------------|-----|--------|-----|-----------|-----------------|------------------|-----------|------------------------|-------------------|
| | | | | - - | 0 | | | â | Measured | Elevation ^B | (ft bgs) |
| CP 00581 | 3 | NORTHERN NATURAL GAS CO. | SAN | 22S | 37E | 14 222 | N32° 23' 43.32" | W103° 07' 44.48" | 18-Apr-79 | 3,337 | 65 |
| USGS #I | | | | 22S | 37E | 11 224 | | | 26-Apr-91 | 3,349 | 54.87 |
| USGS #2 | | | | 22S | 37E | 11 231 | | | 30-Jun-76 | 3,349 | 20.51 |
| USGS #3 | | | | 22S | 37E | 11 322 | | - | 08-Mar-96 | 3,349 | 38.97 |
| USGS #4 | | | | 22S | 37E | 11 444 | | | 25-Apr-91 | 3,336 | 57.98 |
| USGS #5 | | | | 22S | 37E | 12 1 1 4 | - | | 26-Oct-65 | 3,345 | 57.4 |
| USGS #6 | | | | 22S | 37E | 12 213 | | | 14-Oct-53 | 3,345 | 53.26 |
| USGS #7 | | | | 22S | 37E | 12 212 | | | 14-Oct-53 | 3,345 | 53.82 |
| USGS #8 | | | | 22S | 37E | 12 241 | | | 26-Oct-65 | 3,345 | 54.63 |
| USGS #9 | | | | 22S | 37E | 13 113 | | | 26-Feb-86 | 3,335 | 58.48 |
| USGS #10 | | | | 22S | 37E | 13 134 | | | 28-Jan-76 | 3,332 | 56.67 |
| USGS #11 | | | | 22S | 37E | 14 242 | | | 16-Mar-81 | 3,335 | 60.76 |
| USGS #12 | | | | 22S | 37E | 14 243 | | | 26-Oct-65 | 3,335 | 68 |
| USGS #13 | | | | 22S | 37E | 14 442 | | | 14-Feb-96 | 3,326 | 54.06 |
| USGS #14 | | | | 22S | 37E | 23 2 3 1 | | | 14-Oct-53 | 3,325 | 54.95 |
| USGS #15 | | | | 22S | 37E | 23 242 | | | 16-Jan-76 | 3,324 | 54.64 |
| USGS #20 | | | | 22S | 37E | 24 133 | | | 03-Dec-70 | 3,325 | 69.55 |
| USGS #24 | | | | 22S | 38E | 7 311 | | | 14-Feb-96 | 3,336 | 50.23 |
| USGS #25 | | | | 22S | 38E | 18 412 | | | 26-Oct-65 | 3,355 | 199.5 |
| USGS #26 | | | | 22S | 38E | 18 412 | | | 26-Oct-65 | 3,361 | 199.59 |
| USGS #27 | | | | 22S | 38E | 19 2 2 4 | | | 16-Mar-81 | 3,385 | 137.12 |
| USGS #29 | | | | 22S | 38E | 19 2 2 2 | | | 14-Feb-96 | 3,379 | 137.83 |
| | | | | | | | | | | | |

* = Data obtained from the New Mexico Office of the State Engineer Website (http://waters.osc.state.nm.us/J001//WATERS/wr_RegisServlet) and the USGS website (http://waterdata.usgs.gov/nwis).

Shaded areas indicate well locations not shown on Figure 2

 $^{\rm A}$ = in acre feet per annum $^{\rm B}$ = Elevation interpolated from USGS topographical map based on referenced location.

DOM = 72-12-1 Domestic One Household SAN = 72-12-1 Sanitary in Conjunction with a Commercial Use 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 - N.G. Penrose Tank Battery #1

NMOCD Ref. #1RP-1135; EPI Ref. #190027

| Sample ID | Depth (feet) | Soil Status | Sample Date | PID Reading (ppm) | Field Chloride (mg/Kg) | Benzene (mg/Kg) | Toluene (mg/Kg) | Ethylbenzen e (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) | Sulfate (mg/Kg) | Chloride (mg/Kg) |
|-----------------|-----------------|----------------|----------------|-------------------------|------------------------------|--------------------|--------------------|--------------------------|-----------------------------|--------------------------|---------------------------------------|--|--|----------------|--------------------|---------------------|
| | 2 | In situ | 08-Dec-06 | 70 | 180 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 318 | 80 |
| SR-1 | 5 | In situ | 08-Dec-06 | 20.5 | 180 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 46 | 48 |
| | 10 | In situ | 08-Dec-06 | 5.8 | 180 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 182 | 64 |
| | 15 | In situ | 08-Dec-06 | 3.4 | 160 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 223 | 16 |
| | 2 | In situ | 08-Dec-06 | 74.6 | 240 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 132 | 96 |
| SB-7 | 5 | In situ | 08-Dec-06 | 3.0 | 160 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 33.1 | <16 |
| 1 | 10 | In situ | 08-Dec-06 | 1.6 | 160 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 53.2 | <16 |
| | 15 | In situ | 08-Dec-06 | 0.3 | 160 | <0.005 | <0.005 | <0.005 | <0.015 | <0.030 | <10.0 | <10.0 | 1 | <20.0 | 56.1 | <16 |
| MN | OCD Ren | nedial Thre | sholds | 100 | | 10 | | | | 50 | | | - | 1,000 | 009 | 250 |
| Bold values exc | ceed NMOCI | D remedial th | treshold goals | | | | | | | | | | - | | | 10.1 To 10.1 |

bold values exceed NMUCD reme - - = Not Analyzed

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ATTACHMENT I

PROJECT PHOTOGRAPHS

Photograph No. 1 – Lease sign



Photograph No. 2 – Looking easterly at release area and heater treater



Photograph No. 3 – Looking west at release area and reclamation activity



Photograph No. 4 – Looking westerly at release area, heater treater and tank battery



Photograph No. 5 – Looking northwesterly at release and heater treater



Photograph No. 6 – Looking easterly along tank battery and reclamation activity

ATTACHMENT II

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LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORM



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

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

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

Receiving Date: 12/08/06 Reporting Date: 12/08/06 Project Owner: EXXON MOBIL (190027) Project Name: N.G. PENROSE TB # 1 Project Location: UL-G, SECT. 13, T 22 S, R 37 E Sampling Date: 12/08/06 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: NF Analyzed By: BC

| - | GRO | DRO | | | ETHYL | TOTAL |
|-----------------------------|------------------------------------|--------------------------------------|----------|----------|----------|----------|
| LAB NO. SAMPLE ID | (C ₆ -C ₁₀) | (>C ₁₀ -C ₂₈) | BENZENE | TOLUENE | BENZENE | XYLENES |
| | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) |
| | | | | | | |
| ANALYSIS DATE: | 12/08/06 | 12/08/06 | 12/08/06 | 12/08/06 | 12/08/06 | 12/08/06 |
| H11875-1 SB-1 (2') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-2 SB-1 (5') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-3 SB-1 (10') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-4 SB-1 (15') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-5 SB-2 (2') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-6 SB-2 (5') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-7 SB-2 (10') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| H11875-8 SB-2 (15') | <10.0 | <10.0 | <0.005 | <0.005 | <0.005 | <0.015 |
| | | | | | | |
| Quality Control | 777 | 778 | 0.104 | 0.100 | 0.104 | 0.304 |
| True Value QC | 800 | 800 | 0.100 | 0.100 | 0.100 | 0,300 |
| % Recovery | 97.1 | 97.2 | 104 | 100 | 104 | 101 |
| Relative Percent Difference | 1.9 | 1.3 | 2.6 | 0.7 | 0.7 | 2.0 |

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

Joch

H11875A

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 incidentar or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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

Receiving Date: 12/08/06 Reporting Date: 12/10/06 Project Owner: EXXON MOBIL (190027) Project Name: N.G. PENROSE TB #1 Project Location: UL-G, SECT. 13, T 22 S, R 37 E

LAB NUMBER SAMPLE ID

Sampling Date: 12/08/06 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: NF Analyzed By: HM

| SO₄ | CI |
|--------|--------|
| (mg/L) | (mg/L) |

| | | | ······································ |
|----------------|------------------------|----------|--|
| ANALYSIS D | ATE: | 12/10/06 | 12/10/06 |
| H11875-1 | SB-1 (2') | 80 | 318 |
| H11875-2 | SB-1 (5') | 48 | 46.0 |
| H11875-3 | SB-1 (10') | 64 | 182 |
| H11875-4 | SB-1 (15') | 16 | 223 |
| H11875-5 | SB-2 (2') | 96 | 132 |
| H11875-6 | SB-2 (5') | < 16 | 33.1 |
| H11875-7 | SB-2 (10') | < 16 | 53.2 |
| H11875-8 | SB-2 (15') | < 16 | 56.1 |
| | | | |
| Quality Contro | ol | 470 | 10.14 |
| True Value Q | C | 500 | 10.00 |
| % Recovery | | 94 | 101 |
| Relative Perc | ent Difference | 8.2 | 1.4 |
| | | | |

METHODS: CI: Std. Methods 4500-CI'B; SO4: EPA 600 375.4

12-10-06

Date

H11875

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| | | - | us. | | | 800 | 6-39 | | L. | 22 S | | | - | | | | + | - | | _ | | - | _ | | | _ | | Ť, | - ' | <u>۳</u> | ypte S | |
| | i, Inc. | | nental Pl | Duncan | (1558 | lew Mexic | 3481 / 50 | bil | rose TB | ct. 13, T | | 3lackbur | | | | Ċ. | | | | | | | | | | | | Date | au 11 | 12. S. J | San | |
| | Plus | 1 <i>88231</i> 394-260 | Inviron | David P. | 0. BO) | Eunice N | 505-394- | oMnoxx | N.G. Pen | JL-G, Se | 90027 | George I | | | | AMPLEI | | | | | | | | | | | | | | | | |
| | ental | vice, NM X: (505) ; | | | | | | | ~ | | - | 0 | | | | <i>S</i> | 1 (2') | -1 (5') | 1 (10') | 1 (15') | 2 (2') | .2 (5') | 2 (10') | 2 (15') | | | | | | | | |
| | mé | Eul FA) | | age | | | # | | | | e | an | | | | | В. | SB. | SB | SB | 8 N | 8 S | B S | ц S B | \square | | | | | R | | |
| | IUI | e () | ame | Man | ress | Zip | 'Fax | any | e | | hen | Na | | | | | | - 4 | 0) 1 | 4 | ц, | ĩ | | ~ | \sim | 1(| | ed: | | 17 | - | |
| | irc | enu 4-34 | Ž ≥ | ect | Add | ite, i | ne#/ | l uo | Nan | _ | Refe | plei | | | | <u>a</u> | | | | | | | | | | | | nquish | | in N | 2 | |
| | IVI | 0 AV () 39. | ipan | Proj | ing | , Sta | Pho | ut C | lity | atior | ect I | Sam | | | | LAE | 6.9 | | | | | | | | | ł | | er Reli | tichod. | | ed by: | |
| | E | 2101 (505 | Con | EPI | Mail | City | EPI | Clie | Faci | Loci | Proj | ЕРI | | | | | | | | | | | | | | | | Sampli | Bolinou | | Delive | |

ATTACHMENT III

SOIL BORING LOGS

| | | | | | L | .09 [|]f Tes | t Borings (NDTE - Page 1 of 1) |
|------|-------------|--------|-------------|-------------------|---------------|------------|-------------|--|
| | | | | | | | Projec | t Number: 190027 |
| | | Еичі | | TAL F | LUS, IN | vc. [| Projec | t Name: N.G. Penrose TB #1 |
| | | REM | EDIAL (| | | | Locatio | n: UL-G, Section 8, Township 22 South, Range 37 East |
| | | L | 505-39 | 94-3481 | AICU | : | Boring N | Number: SB-1 Surface Elevation: 3330-feet amsl |
| | e | er y | e L | sig | g Sis | 50 | <u>ن</u> ع | Start Date: 12-8-06 |
| Time | Type | | listu | PID ndp mdd | iolor Pg/R | S.C. |)ept fee | Completion Date: <u>12-08-06</u> Time: <u>1005 hrs</u> |
| | S | 89 | Σ | Å, | 542 | 20 | | Description |
| 0805 | 55 | 6 | ittle | 70 | 180 | | \vdash | |
| | | | | | | | - <u> -</u> | 2' Dark Tan Sand |
| | | | | | | | | |
| | | | | | | | 5 | |
| 0815 | 55 | 6 | Little | 20.5 | 180 | | + | 5' Tan Sand |
| | | | | | | | \vdash | - |
| | 1 | | | | | | | - |
| | | | | | | | 10 | |
| 0845 | ss | 6 | little | 5.8 | 180 | | + | 10' White sand/clay mix |
| | | | | | | | | _ |
| | | | | | | | \vdash | _ |
| | | | | | | | E | |
| 0950 | 55 | 6 | little | 3.4 | 160 | | 15 | 15' Tan Sandstone |
| | | | | | | | | 16'End of Soil Boring |
| | | | | | | | | |
| | | | | | | | - | _ |
| | | | | | | | 20 | |
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| | | | | | | | | |
| | | | | | | | — | - |
| Date | Vate Tim | r Leve | Measu | irement Casino | s (feet | :) a Va | ter Dr | rilling Methodi Auger |
| | | | epth | Depth | Depth | | evel B | ackfill Method: Bentonite |
| - | | | - | _ | - | + | | eld Representative: GB |
| L | 1 | | I | | | _ | | , |

| | | | | | L | _og | Of Tes | Borings | (NDTE - Page 1 of 1) |
|------|------|------------|---------|-----------------------|---------------|----------|--------------|-------------------|---|
| | | | | | | | Proje | : Number: 190027 | 7 |
| | | Envi | | ITAL F | LUS, II | NC. | Proje | Name: N.G. Peni | rose TB #1 |
| | | REM | EDIAL (| | | | Locatio | UL-G, Section | 8, Township 22 South, Range 37 East |
| | | EL | 505-39 | 94-3481 | AICU. | | Boring | umber: SB-2 | Surface Elevation: 3330-feet amsl |
| | ω. | ×. ∧ | e e | s | a si G | | 50 | Start Da | te: 12-8-06 Time: 1030 hrs |
| Time | Type | | İstu | n din PID n din | ilori 19/K | S, C, S, | feet | Completio | n Date: <u>12-08-06</u> Time: <u>1200 hrs</u> |
| | S. | arê arê | Ϋ́ | Re | 54? | _∩∽ | | De | scription |
| 1025 | | 6 | | 746 | 240 | | - | | _ |
| 1035 | | | | | | | | $\overline{}$ | 2' Dark Tan Sand |
| | | | | | | | Ľ | | |
| | | | | | | - | | _ | |
| 1045 | ss | 6 | Little | 3.0 | 160 | | | \ | 5' Tan Sand |
| | | | | | | | - | | — |
| | | | | | | | | | — |
| | | | | | | | | _ | |
| 1052 | ss | 6 | little | 1.6 | 160 | | ^ | 10' | White sand/clay mix |
| | | | | | | | <u> </u> | | _ |
| | | | | | | | <u> </u> | | — |
| | | | | | | | ┢ | | — |
| 1120 | ss | 6 | little | .3 | 160 | | | 1 | .5' white Sandstone |
| | | | | | | | | 10 | 6'End of Soll Boring |
| | | | | | | | <u> </u> | | _ |
| | | | | | | | - | | — |
| | | | | | | | 20 | | |
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| | | | | | | | <u> </u> | | _ |
| | | | 1 | | | | - | | |
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| | | | | | | | \vdash | | _ |
| | | | | | | | зо | | |
| | | | | | | | - | | — |
| | Wate | r Leve | l Measu | urement | s (feet | ;) | | illing Method: Au | oer . |
| Dare | | - 50 De | epth | Depth | Depth | | | ckfill Method: Be | entonite |
| | - | | - | - | - | | | Id Representativo | GR |
| | | | | | | | ^r | | رس |

ATTACHMENT IV

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COPY OF INITIAL NMOCD C-141 FORM

| | | . | | | T /+ 0% T |
|----------------------------|---------------------------------|-----------------------|---|-------------------------------|--|
| | | Incide | nt Date: | NMOCD N | lotified: |
| - | | 24 Oct | ober 2006 | 24 October | 2006 |
| EX | onMobil | | | | |
| Informa | tion and Metrics | | | | |
| Site: NG Penr | ose TB #1 | | Assigned Site | Reference : #19 | 0027 |
| Company: E | xxonMobil | | | | |
| Street Address | 1 | | #6147 r | | ······································ |
| Mailing Addre | | | | | |
| City, State, Zi | D: | | | | |
| Representative | e: | | | | |
| Representative | e Telephone: | | | | 10.000 (10.000) (10.000 (10.00 |
| Telephone: | | | | | |
| Fluid volume i | celeased (bbls): bbls | | Recov | ered (bbls): nor | ne |
| | >25 bbls: Notify NM | OCD verb | ally within 24 hrs and | submit form C-14 | 41 within 15 days. |
| | (Also ap | plies to ur | authorized releases > | 500 mcf Natural | Gas) |
| 5-25 t | obls: Submit form C-141 wi | thin 15 day | ys (Also applies to un: | authorized release | es of 50-500 mcf Natural Gas) |
| Leak, Spill, or | Pit (LSP) Name: NG Pe | nrose TB | #1 | | · · · · · · · · · · · · · · · · · · · |
| Source of cont | amination: Tank Battery | | | | 5 |
| Land Owner, i | i.e., BLM, ST, Fee, Other | : | | | |
| LSP Dimensio | ns: Unknown | | | | |
| LSP Area: ~3, | 400 ft ² | | | | |
| Location of Re | ference Point (RP): | | | | |
| Location dista | nce and direction from R | P: | | | |
| Latitude: N 32 | 2° 23' 40.83" | | | | |
| Longitude: W | 103° 06' 54.10" | | | | |
| Elevation abov | ve mean sea level: 3,337 | feet | | | |
| Feet from Sou | th Section Line: | | | | · · · · · · · · · · · · · · · · · · · |
| Feet from East | Section Line: | | | | |
| Location-Unit | or 1/41/4: SW1/4 of the NI | E1/4 | Unit Lette | r: G | |
| Location-Sect | ion: 13 | | | | |
| Location- Tow | nship: 22 South | | | | |
| Location- Ran | ge: 37 East | | | | |
| | 9 | | | | |
| Surface water | body within 1000 ' radiu | s of site: | none | | |
| Domestic wate | r wells within 1000' radi | us of site: | none | | |
| Agricultural w | ater wells within 1000' r | adius of s | ite: none | | |
| Public water s | upply wells within 1000' | radius of | site: none | ··· ··· · · · · · · · | |
| Depth from la | nd surface to groundwat | er (DG): | ~71 feet | | |
| Depth of conta | mination (DC): unknow | n <u> </u> | | | |
| Depth to grou | ndwater (DG – DC = DtC | GW): ~71 | feet | | |
| 1. (| Froundwater | 2. | . Wellhead Protecti | on Area | 3. Distance to Surface Water Body |
| If Depth to GW | <50 feet: 20 points | If <1000 | ' from water source, | or;<200' from | <200 horizontal feet: 20 points |
| If Depth to GW | 50 to 99 feet: 10 points | private d | lomestic water source | e: 20 points | 200-1000 horizontal feet: 10 points |
| If Depth to GW | >100 feet: 0 points | If >1000 private c | ' from water source, lomestic water source | or; >200' from e: 0 points | >1000 horizontal feet: 0 points |
| Site Rank (1+2 | +3) = 10 + 0 + 0 = 10 | | | | |
| | Total Si | te Rankir | g Score and Accept | able Concentra | tions |
| Parameter | >19 | | 10-19 | | 0-9 |
| Benzene ¹ | 10 ppm | | 10 ppm | | 10 ppm |
| BTEX ¹ | 50 ppm | | 50 ppm | | 50 ppm |
| ТРН | 100 ppm | | 1,000 ppr | n | 5,000 ppm |
| ¹ 100 ppm field | VOC headspace measuren | nent mav | be substituted for lab | analysis | |
| | | , | | | |

| 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 |
| |

Energy Minerals and Natural Resources RP##11355 Oil Conservation Division

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

| | | | Relo | ease | Notifi | catio | on an | d Co | orrective | e Act | tion | | | | |
|---|---|---|---|--|---|---|---|---|--|---|---|---|--|--|---------------------------------|
| | | | | | | | OP | ERA' | TOR | | \boxtimes | Initia | al Report | 🗌 Fin | al Report |
| Name of Co | mpany Ex | xxonMobil | | | | | Conta | ict To | ni Collier | | | | | | |
| Address P.C | D. Box 43 | 58, Houston, | , TX 772 | 210 | | | Telep | hone | No. 281-654 | -1133 | | | | ···- | |
| Facility Nan | ne BDT | | | ······ | | | Facil | ty Typ | be Tank Bat | ttery | | | ······································ | | |
| Surface Own | ner Tim I | Kimmeran | | | Mineral (| Owner | Tim I | Cimme | eran | | L | lease N | lo. (Property | / # 4202) | |
| | | | | | LOC | ATIO | | r D F | LEASE | | | | | | |
| Unit Letter | Section | Township | Range | Feet | from the | Nort | h/South | Line | Feet from th | ne E | East/West | Line | County | |] |
| G | 13 | 228 | 37E | | | | | | | | | | Lea | | $\sim $ |
| | | | | | | | | | | | | | | | () |
| | | 1 | Lati | itude_ | N 32.23.6 | 577 | L | ongitu | de_ <u>W 103.0</u> | 6.768 | | | | R 60 | |
| | | | | | NAT | ΓURE | C OF | REL | EASE | | | | | | |
| Type of Relea | ise Oil and | l water | | | | | Vol Wa | ume of | Release 16 C | Dil, 17 | Vo | olume R | ecovered 1 | 5 oil, 15 w | ater |
| Source of Rel | ease Heat | ter treater | | | | | Dat 10/2 | e and N 24/06 | our of Occuri 12:00PM | rence | Da Sa | ite and 1 me | Hour of Disco | overy | |
| Was Immedia | te Notice (| Given? | Yes 🗌 |] No | 🗌 Not R | equired | I Pat | ES, To Capert | Whom? on | | | | 2006 | | |
| By Whom? S | helby Penn | ington | | | **** | | Dat | and H | lour 10/24/06 | 6 2:: | 51PM | | 8 | | |
| Was a Watero | ourse Read | ched? | Yes 🛛 | No | | | If Y | ES, Vo | olume Impacti | ng the | Watercou | urse. | <u> </u> | | |
| Describe Cour | rse was im | em and Penner | tial Action | n Taka | | | | | 0112131 | 14157 B | 677 18 19 | 21021 | AIN 10 0 | | |
| Leak on fire to | ibe on heat | ter treater. | | II I AKC | 4 1. ⁻ | | | | 345678 | Habbs | | 122324 25 | œ | | |
| Describe Area Affected and Cleanup Action Taken.* Tank battery pad and lease road affected. Vacuumed up free fluid. Contaminated soil was excavated Delinestion plan will be submitted for approval. | | | | | | | | | | | | | oval. | | |
| I hereby certif regulations all public health of should their op or the environi federal, state, of | y that the i operators or the envir perations hi ment. In a or local law | nformation given are required to conment. The ave failed to a ddition, NMO ws and/or regu | ven above o report an acceptanc dequately CD accept lations. | is true id/or fi ee of a invest tance of | e and comp le certain r C-141 repo igate and r of a C-141 | elease port by the emedia report of | the best notifica ne NMC te conta does no | of my ions ar OCD m minati reliev | knowledge an nd perform con arked as "Fina on that pose a e the operator | nd unde rrective al Repo threat of resp | erstand the actions ort" does not to ground ponsibility | for rele not relie d water, y for co | uant to NMOO ases which m eve the operat surface wate mpliance wit | CD rules a ay endang or of liabi r, human l h any othe | nd er lity health r |
| | 7 | -M M | $\langle \rangle$ | ~ | | | | | <u>OIL CO</u> | NSE | RVAT | ION | DIVISION | 1 | INF |
| Signature: | /m | U 0. | Clef | | - | | | | F | _ C | | 5 | hrsor | | NOT |
| Printed Name: | Timothy | O. Cagle | 0 | | | | Appro | ed by | District Super | visor: | | 20 | 2-5- | | 1 |
| Title: Compl | iance Supe | rvisor | | | | | Аррго | al Dat | e: 11.29.0 | DL | Expir | ration I | Date: (2.1 | 5.06 | |
| E-mail Addres | s: timothy. | o.cagle@exxc | onmobil.co | um | | | Condit | ions of | Approval: | | / | | Attached | | |
| Date: | | | Phone: | 281-6 | 54-1001 | | Nube | Low | me duer | LTICA | | | | | |
| Attach Additi | onal Shee | ts If Necessa | iry | | | 1 ' | Dec | -1 NC | ATTON', CH | +Lora | DE of | STRU | SPILLED |), | ····· |
| | | | | | | | | 2806 | TI De | ECTPA | RUCH | s (| (HDAY) | Crian | |
| | | | | | | | | / | Í Sh | FLE | 34 \$ | D | Aprel | - (0) | ď |
| | | | | | | | | | Du | scu | 188 | APT | ROUTH | (Z15) 250 | -06 20 Fm |