

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
220 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

Risk
Defined
plume

Submit 1 copy to
appropriate
District Office
and 1 copy to
the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

BO-045-09368

Operator: Amoco by EPFS Telephone: _____

Address: _____

Facility Or: LS Lindsey #1A, Meter 71261

Well Name _____

Location: Unit or Qtr/Qtr Sec H G Sec 19 T 30 R 8 County San Juan

Pit Type: Separator _____ Dehydrator X Other _____

Land Type: BLM X, State _____, Fee _____ Other _____

Pit Location: Pit dimensions: length 28', width 21', depth 4'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 58'

Direction from reference: 294 Degrees X East North _____

of
_____ West South _____

| | | |
|--------------------------|-----------------------|----------------------|
| Depth To Ground Water | Less than 50 feet | (20 points) |
| (Vertical distance from | 50 feet to 99 feet | (10 points) |
| contaminants to seasonal | Greater than 100 feet | (0 points) <u>0</u> |
| high water elevation of | | |
| ground water.) | | |

| | |
|--|-------------------------|
| Wellhead Protection Area: | Yes (20 points) |
| (Less than 200 feet from a private | No (0 points) <u>0</u> |
| domestic water source, or; less than | |
| 1000 feet from all other water sources.) | |

| | | |
|--|------------------------|-----------------------|
| Distance To Surface Water: | Less than 200 feet | (20 points) |
| (Horizontal distance to perennial | 200 feet to 1000 feet | (10 points) |
| lakes, ponds, rivers, streams, creeks, | Greater than 1000 feet | (0 points) <u>10</u> |
| irrigation canals and ditches.) | | |

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 05/11/94 Date completed: 05/12/94

Remediation Method: Excavation X Approx. cubic yards 90
(Check all appropriate sections.) Landfarmed _____ Insitu Bioremediation _____
Other _____

Remediation Location: Onsite _____ Offsite Tierra
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Contamination started at about 3'. Hit cobble layer at 7' on northern end of pit. At southern end of pit excavator hit a pipeline at 3 1/2'. At 1200, contacted Ricky Cosby. The one call # is 94050314500450. Stopped all construction, set up barrier fence. Pulled off location at 12:40. 05/12/94 continued excavation on north end of pit through cobble layer to 12'. Took PID sample, closed pit.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:

Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location Four walls and center of pit composite

Sample depth 12'

Sample Date 05/12/94 Sample time 09:50

Sample Results

Benzene(ppm) 0.694

Total BTEX(ppm) 117

Field headspace(ppm) 572

TPH 242

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 1/8/03

Signature

Scott T. Pope

Printed Name

Scott T. Pope

and Title

Senior Env. Scientist



PIT CLOSURE REQUEST

Lindsey #1A
Meter/Line ID 71261

SITE DETAILS

Legals - Twn: 30N

Rng: 8W

Sec: 19

Unit: G

NMOCD Hazard Ranking: 10

Land Type: BLM

Operator: Amoco Production Company

Pit Closure Date: 5/12/94

RATIONALE FOR RISK-BASED CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

A test pit was excavated to 12 feet (ft) below ground surface (bgs) and a soil sample was collected for field headspace and laboratory analysis for TPH and BTEX. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 572 ppm; laboratory analysis indicated a benzene concentration of 0.694 mg/kg, a total BTEX concentration of 117 mg/kg, and a TPH concentration of 242 mg/kg. The total BTEX measurements exceeded recommended remediation levels for the Hazard Ranking Score of 10.

Approximately 90 cubic yards of soil were excavated and hauled to Tierra, a commercial landfarm, for treatment and disposal. The pit was backfilled with clean soil and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed with auger refusal at 12.5 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 10-12 ft bgs. Headspace analysis indicated an organic vapor content of 0 ppm; laboratory analysis indicated a benzene concentration of <0.025 mg/kg, a total BTEX concentration of <0.10 mg/kg, and a TPH concentration of 103 mg/kg. The benzene TPH, and total BTEX concentrations were below recommended remediation levels for the Hazard Ranking Score.

No Phase III excavation was done.

El Paso Field Services requests closure of the above mentioned pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for over eight years.
- The impacted soils were excavated to the practical extent of the equipment and site conditions.
- Auger refusal was encountered at 12.5 feet bgs indicating that further excavation is impractical.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Backfilling the pit with clean soil eliminated the potential for direct contact with hazardous constituents by livestock or the public; i.e., direct contact exposure pathways are incomplete.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 71261 Location: Lindsey #1A
Operator #: 0203 Operator Name: AMMO P/L District: Bloomfield
Coordinates: Letter B Section 19 Township: 30 Range: 8
or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: _____ Line Drip: _____ Other: _____
Site Assessment Date: 4/27/94 Area: 10 Run: 22
Revised Date: 12/10/02

SITE ASSESSMENT

NMOCD Zone:

(from NMCOD Maps)

Land Type:

BLM

☒ (1)

State

☐ (2)

Fee

☐ (3)

Indian _____

Inside ☒ (1)

Outside ☐ (2)

Depth to Groundwater

Less than 50 Feet (20 points)

☐ (1)

50 Feet to 99 Feet (10 Points)

☐ (2)

Greater than 100 Feet (0 Points)

☒ (3)

Well Protection Area

Is it less than 1000 feet from well, spring or other source of fresh water extraction?
or; Is it less than 200 feet from a private domestic water source?

☐ YES (20 Points)

☒ NO (0 Points)

Horizontal Distance to Surface Water Body

Less than 200 Feet (20 points)

☐ (1)

200 Feet to 1000 Feet (10 Points)

☒ (2)

Greater than 1000 Feet (0 Points)

☐ (3)

Name of Surface Water Body SAN JUAN RIVER

(Surface Water Body: Perennial River, Stream, Creek, Irrigation Canal, Ditch, Lake, Pond)

Distance to Nearest Ephemeral Stream

☐ (1) < 100 feet

(Navajo Pits Only)

☐ (2) > 100 feet

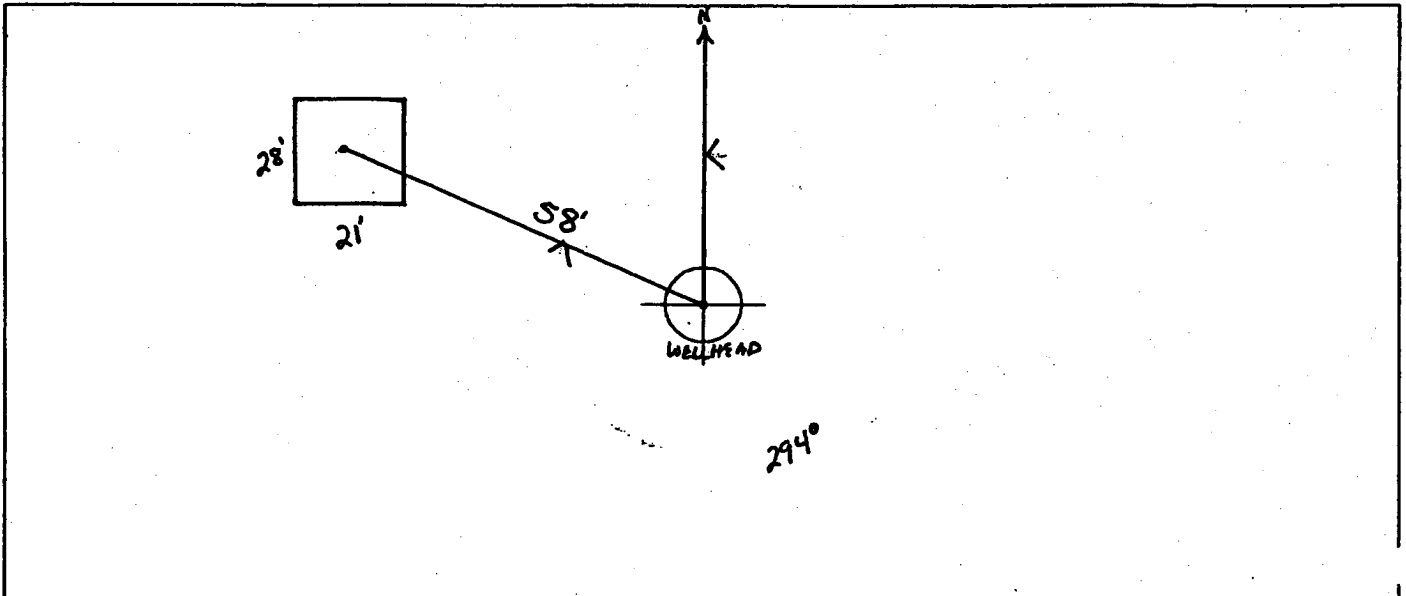
TOTAL HAZARD RANKING SCORE 10 **POINTS**

REMARKS

Remarks: Revision based on re-assessment of depth to
groundwater.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 294° Footage from Wellhead 58'
 b) Length : 28' Width : 21' Depth : 4'



ORIGINAL PIT LOCATION

Remarks :

TOOK PICTURES AT 1:48 P.M.

END DUMP

REMARKS

Completed By:

Robert Champion

Signature

4.27.94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 71261 Location: Lindsey #1A

Coordinates: Letter: G Section 19 Township: 30 Range: 8

Or Latitude _____ Longitude _____

Date Started : 5-11-94 Area: 10 Run: 22

OBSERVATIONS

Sample Number(s): KD53

Sample Depth: 12' Feet

Final PID Reading 572 ppr PID Reading Depth 12' Feet

Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 90

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☐ (3)

Soil Disposition:

Envirotech ☐ (1) ☒ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 5-12-94 Pit Closed By: BEI

REMARKS

Remarks : Contamination started At About 3', Hit Cobble Layer At 7' on Northern End of Pit. AT Southern End of Pit Excavator hit A Pipeline at 3 1/2' At 1200, Contacted Ricky Cosby. The 1 Call # is 94050314500450. STOPPED All Construction, Set up Barrier Fence, Pulled off Location At 12:40

Signature of Specialist: Kenny Dearen

Over →



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

20
Split w/
ATI

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|---------------------------|-------------------|------------------------------|
| SAMPLE NUMBER: | 1053 | 945150 |
| MTR CODE SITE NAME: | 71241 | 0950 ^{KDK} N/A |
| SAMPLE DATE TIME (Hrs): | 5-12-94 | 0950 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. ANAL: | 5/16/94 | 5/16/94 |
| DATE OF BTEX EXT. ANAL: | 5/18/94 - 5/17/94 | 5/18-5/19/94 |
| TYPE DESCRIPTION: | VC | Dark brown/black coarse Sand |

REMARKS: Split

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | | ATI Result |
|----------------|--------------------|-------------------------------|------------|---|------|-------|------------|
| | | | DF | Q | M(g) | V(ml) | |
| BENZENE | 0.694 | MG/KG | | | | | 21.1 |
| TOLUENE | 9.78 | MG/KG | | | | | 1.9 |
| ETHYL BENZENE | 6.83 | MG/KG | | | | | 2.5 |
| TOTAL XYLENES | 99.7 | MG/KG | | | | | 35 |
| TOTAL BTEX | 117 | MG/KG | 0.005941 | | 5.05 | 30 | 41 |
| TPH (418.1) | 240 242 | ^{Anal 4/13/94} MG/KG | | | 2.09 | 28 | 110 |
| HEADSPACE PID | 572 | PPM | | | | | |
| PERCENT SOLIDS | 90.2 | % | | | | | |

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 136 % for this sample All QA/QC was acceptable.

Negative:

Surrogate recovery outside EPNG QC limits due to matrix interference.

SR=65
DF=50

DF = Dilution Factor Used

Approved By:

John Ladd

Date:

7/14/94



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 405378
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

| SAMPLE ID. # | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|---------------|-------------|--------|--------------|----------------|---------------|-------------|
| 01 | 945150 | NON-AQ | 05/12/94 | 05/19/94 | 05/19/94 | 50 |
| 02 | 945151 | NON-AQ | 05/12/94 | 05/19/94 | 05/19/94 | 50 |
| 03 | 945152 | NON-AQ | 05/12/94 | 05/19/94 | 05/19/94 | 50 |
| PARAMETER | | | UNITS | 01 | 02 | 03 |
| BENZENE | | | MG/KG | <1.2 | 2.6 | <1.2 |
| TOLUENE | | | MG/KG | 1.9 | 32 | 3.8 |
| ETHYLBENZENE | | | MG/KG | 2.5 | 4.4 | 2.2 |
| TOTAL XYLENES | | | MG/KG | 35 | 110 | 26 |

SURROGATE:

BROMOFLUOROBENZENE (%) 65 62* 39*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

Acceptable.
JF
4/6/94



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

| | | | |
|--------------|---------------------------|---------------|------------|
| CLIENT | : EL PASO NATURAL GAS CO. | ATI I.D. | : 405378 |
| PROJECT # | : 24324 | DATE RECEIVED | : 05/18/94 |
| PROJECT NAME | : PIT CLOSURE | DATE ANALYZED | : 05/20/94 |

| PARAMETER | UNITS | 01 |
|----------------------------|-------|------|
| PETROLEUM HYDROCARBONS, IR | MG/KG | 1100 |

EPNG Sample # 945150 split

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL

1000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2389

Borehole # BH-1
Well # N/A
Page 1 of 1

Project Name EPNG PITS
Project Number 14509 Phase 6000 77
Project Location Easter Pump Canyon

Elevation _____
Borehole Location Lindsey # 1A (71261)
GWL Depth N/A
Logged By S. Pope
Drilled By M DONOHUE
Date/Time Started 1515 6/14/95
Date/Time Completed 1615 6/14/95

Well Logged By ST Pope
Personnel On-Site Tim O'Kief
Contractors On-Site N/A
Client Personnel On-Site N/A

Drilling Method 4 1/4" ID HSA
Air Monitoring Method PID, CGI

| Depth (Feet) | Sample Number | Sample Interval | Sample Type & Recovery (Inches) | Sample Description Classification System: USCS | USCS Symbol | Depth Lithology Change (feet) | Air Monitoring Units: PPM BZ BH AS | | | Drilling Conditions & Blow Counts |
|-----------------|------------------|--------------------|--|---|----------------|--|--|---|---|---|
| 0 | | | | Brown Sandy Fill | | | | | | |
| 5 | | | | | | | | | | |
| 10 | 1 | 10 12 | ss 11 | Brown-Gray Clayey Sand w/ Gravel and Cobbles, Fine-Med Sand, Medium Gravel, Dense, Slightly TOB = 12.5 | Moist | 10 | 0 | 0 | 8 | 1530 HS = 8ppm In cobbles @ 12 Auger Refusal @ 12.5' could not get 12.5' sample Sampler bouncing on Cobbles. |
| 15 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Comments:

Auger Refusal @ 12.5'. Could not get 12.5' sample due to cobbles.
Sample bouncing on cobble zone. Collect 10-12' sample. Grant having shut
w/ Cement/Bentonite Grout.

Geologist Signature

Steve T. Pope

Phase II

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|----------------------------|----------|------------------|
| SAMPLE NUMBER: | STP 6 | 946905 |
| MTR CODE SITE NAME: | 71261 | N/A |
| SAMPLE DATE TIME (Hrs): | 6-14-95 | 1530 |
| SAMPLED BY: | N/A | |
| DATE OF TPH EXT. ANAL.: | 6/15/95 | 6-15-95 |
| DATE OF BTEX EXT. ANAL.: | 6-16-95 | 6-16-95 |
| TYPE DESCRIPTION: | VG | Grey sand & clay |

REMARKS:

RESULTS

| PARAMETER | RESULT | UNITS | QUALIFIERS | | | |
|----------------|--------|-------|------------|---|------|-------|
| | | | DF | Q | M(g) | V(ml) |
| BENZENE | 20.025 | MG/KG | 1 | | | |
| TOLUENE | 20.025 | MG/KG | 1 | | | |
| ETHYL BENZENE | 20.025 | MG/KG | 1 | | | |
| TOTAL XYLENES | 20.025 | MG/KG | 1 | | | |
| TOTAL BTEX | 20.10 | MG/KG | | | | |
| TPH (418.1) | 103 | MG/KG | | | 2.08 | 28 |
| HEADSPACE PID | 0 | PPM | | | | |
| PERCENT SOLIDS | 92.8 | % | | | | |

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 94 % for this sample All QA/QC was acceptable.

Narrative:

result attached for BTEX and modified 8015

DF = Dilution Factor Used

Approved By:

J.P.

Date:

6/28/95



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE II

| SAMPLE ID. # | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|---------------|-------------|--------|--------------|----------------|---------------|-------------|
| 13 | 946903 | NON-AQ | 06/14/95 | 06/16/95 | 06/16/95 | 1 |
| 14 | 946904 | NON-AQ | 06/14/95 | 06/16/95 | 06/16/95 | 1 |
| 15 | 946905 | NON-AQ | 06/14/95 | 06/16/95 | 06/16/95 | 1 |
| PARAMETER | | | UNITS | 13 | 14 | 15 |
| BENZENE | | | MG/KG | <0.025 | <0.025 | <0.025 |
| TOLUENE | | | MG/KG | 0.037 | <0.025 | <0.025 |
| ETHYLBENZENE | | | MG/KG | <0.025 | <0.025 | <0.025 |
| TOTAL XYLENES | | | MG/KG | <0.025 | <0.025 | <0.025 |

SURROGATE:

| | | | |
|------------------------|-----|-----|----|
| BROMOFLUOROBENZENE (%) | 102 | 101 | 94 |
|------------------------|-----|-----|----|



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506376
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE II

| SAMPLE ID. # | CLIENT I.D. | MATRIX | DATE SAMPLED | DATE EXTRACTED | DATE ANALYZED | DIL. FACTOR |
|--------------------------------|-------------|--------|--------------|----------------|---------------|-------------|
| 12 | 946902 | NON-AQ | 06/14/95 | 06/16/95 | 06/19/95 | 10 |
| 13 | 946903 | NON-AQ | 06/14/95 | 06/16/95 | 06/19/95 | 1 |
| 15 | 946905 | NON-AQ | 06/14/95 | 06/16/95 | 06/19/95 | 1 |
| PARAMETER | | | UNITS | 12 | 13 | 15 |
| FUEL HYDROCARBONS | | | MG/KG | 3400 | <5 | <5 |
| HYDROCARBON RANGE | | | | C10-C36 | - | - |
| HYDROCARBONS QUANTITATED USING | | | | DIESEL | - | - |

SURROGATE:

O-TERPHENYL (%) 80 102 94