

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

*Risk  
defined  
extent of  
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**

Operator: Amoco Telephone: \_\_\_\_\_

Address: 30-045-06342

Facility Or: Florance D LS#1, Meter 70470

Well Name \_\_\_\_\_

Location: Unit or Qtr/Qtr Sec I Sec 21 T 27 R 8 County San Juan

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Drip

Land Type: BLM X, State \_\_\_\_\_, Fee \_\_\_\_\_ Other \_\_\_\_\_

Pit Location: Pit dimensions: length 18', width 15', depth 2'

(Attach diagram)

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: 51'

Direction from reference: 165 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>10</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>0</u>
irrigation canals and ditches.)		

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 08/01/94 Date completed: 08/02/94

Remediation Method: Excavation X Approx. cubic yards 60

(Check all appropriate sections.)

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite \_\_\_\_\_ Offsite Envirotech  
(i.e. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remedial Action: Excavated pit to 12', took PID sample, closed pit on 8/02/94.

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 08/01/94 Sample time 16:10

Sample Results

Benzene(ppm) <0.025

Total BTEX(ppm) 21

Field headspace(ppm) 254

TPH 423

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

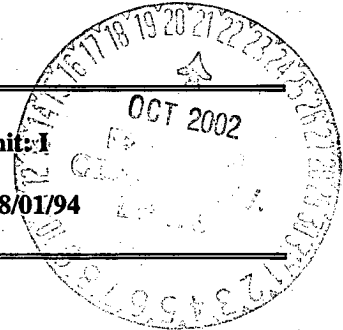
Florance D LS 1  
Meter/Line ID 70470

### SITE DETAILS

Legals - Twn: 27N  
NMOCD Hazard Ranking: 10  
Operator: Amoco

Rng: 8

Sec: 21 Unit: 1  
Land Type: BLM  
Pit Closure Date: 08/01/94



### 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.

The pit was excavated to 12 feet (ft) below ground surface (bgs) to the practical extent of the equipment and a soil sample was collected for field headspace analysis and laboratory analysis for BTEX and TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 254 ppm; laboratory analysis indicated a benzene concentration of <0.025 mg/kg, a total BTEX concentration of 21 mg/kg, and a TPH concentration of 423 mg/kg. All analyses were below recommended remediation levels for the Hazard Ranking Score of 10.

Approximately 60 cubic yards of soil were excavated and hauled to Envirotech, 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 to refusal at 38.33 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 38-38.3 ft bgs. Headspace analysis indicated an organic vapor content of 10,907 ppm. Laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of 20.8 mg/kg, and a TPH concentration of 805 mg/kg. All analyses were below recommended remediation levels for the Hazard Ranking Score.

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

- The primary source, discharge to the pit, has been removed for over eight years.
- The impacted soil was excavated to the practical extent of the equipment and disposed of offsite.
- The excavation 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.
- Groundwater was not encountered in the soil boring to 38 ft bgs.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
-



## **PIT CLOSURE REQUEST**

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### **ATTACHMENTS**

Field Pit Assessment Form

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase 2 Soil Boring Log

Laboratory Analytical Results

# FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 70470 Location: Florence D LS 1  
 Operator #: 0203 Operator Name: Amoco P/L District: Ballard  
 Coordinates: Letter: E Section 21 Township: 27 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: ✓ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 6/11/94 Area: 07 Run: 32

SITE ASSESSMENT

## NMOCD Zone:

(From NMOCD  
Maps)

Inside

Outside

## Land Type:

BLM ☒ (1)

State ☐ (2)

Fee ☐ (3)

Indian \_\_\_\_\_

## Depth to Groundwater

Less Than 50 Feet (20 points) ☒ (1)

50 Ft to 99 Ft (10 points) ☐ (2)

Greater Than 100 Ft (0 points) ☐ (3)

## Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

## Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☒ (1)

200 Ft to 1000 Ft (10 points) ☐ (2)

Greater Than 1000 Ft (0 points) ☐ (3)

Name of Surface Water Body One Fre Jaquez Canyon (off of Largo)

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 40 POINTS

REMARKS

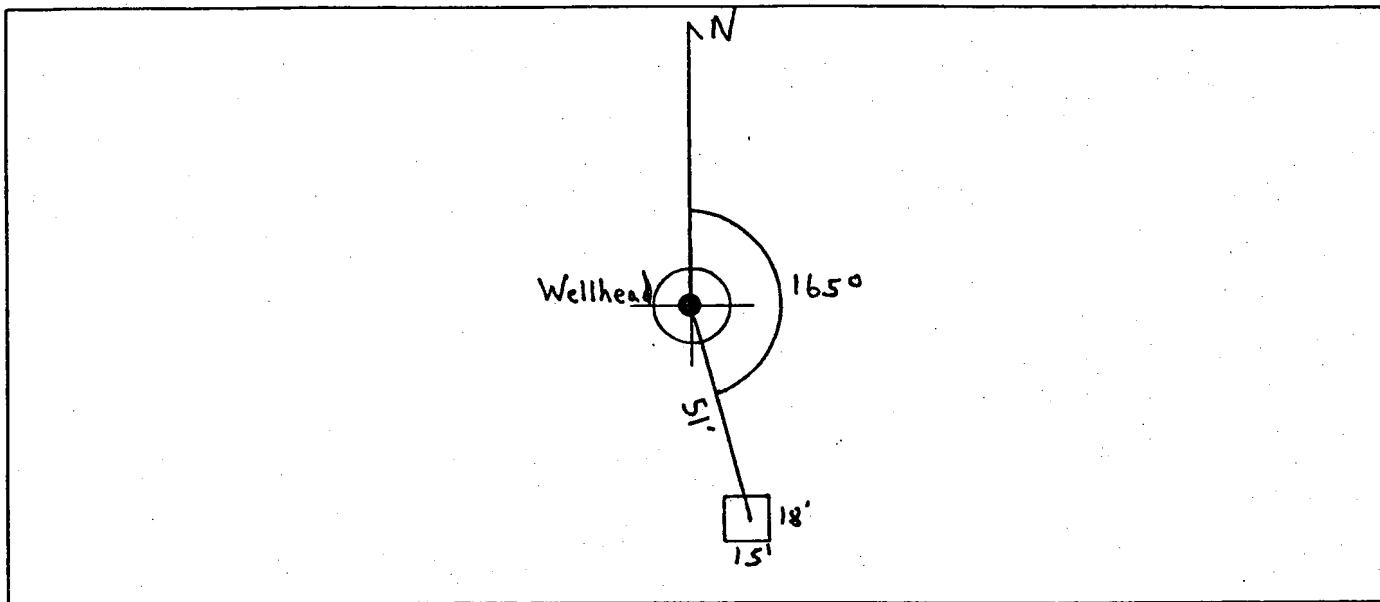
Remarks : Redline Bank-Inside, Vulnerable Zone Top-Inside  
2 pits. Will close. Air dry

DIG + HAU

## ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 165° Footage from Wellhead 51'  
b) Length : 18' Width : 15' Depth : 2'



## REMARKS

Remarks :

Pictures @ 0927 (1-4) roll 2  
Dump Truck

Completed By:

Cory Chase  
Signature

6/11/94  
Date

**REVISED**  
**FIELD PIT SITE ASSESSMENT FORM**

GENERAL

Meter: 70470 Location: FLORENCE D 651  
Operator #: 0203 Operator Name: AMOCO P/L District: BALLARD  
Coordinates: Letter I Section 21 Township: 27 Range: 8  
or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 6/11/94 Area: 07 Run: 32  
Revised Date: 9/25/02

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 ONOFRE JAYUEE CANYON  
(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-EVALUATION OF DEPTH TO  
GROUNDWATER USING DELORME SOFTWARE. DISTANCE TO  
NEAREST SURFACE WATER BODY WAS ALSO REVISED.

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 70470 Location: Florance D LS #1  
 Coordinates: Letter: I Section 21 Township: 27 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 8/1/94 Run: 07 32

FIELD OBSERVATIONS

Sample Number(s): KD 180  
 Sample Depth: 12' Feet  
 Final PID Reading 254ppm PID Reading Depth 12' Feet  
 Yes No  
 Groundwater Encountered ☐ ☒ Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
 Excavation ☒ Approx. Cubic Yards 60  
 Onsite Bioremediation ☐  
 Backfill Pit Without Excavation ☐  
 Soil Disposition:  
 Envirotech ☒ ☐ Tierra  
 Other Facility ☐ Name: \_\_\_\_\_  
 Pit Closure Date: 8/2/94 Pit Closed By: BEI

REMARKS

Remarks : Excavated pit to 12', Took pid sample, Closed pit, on  
8/2/94

Signature of Specialist: King Brown





FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD180	945802
MTR CODE   SITE NAME:	70470	N/A
SAMPLE DATE   TIME (Hrs):	8-1-94	1610
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8-2-94	8-2-94
DATE OF BTEX EXT.   ANAL.:	8/4/94	8/7/94
TYPE   DESCRIPTION:	VC	Brown/Grey Sand/Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	LO.025	MG/KG	1			
TOLUENE	LO.025	MG/KG	1			
ETHYL BENZENE	0.036	MG/KG	1			
TOTAL XYLENES	21	MG/KG	1			
TOTAL BTEX	21	MG/KG				
TPH (418.1)	423	MG/KG			2.02	28
HEADSPACE PID	254	PPM				
PERCENT SOLIDS	92.1	%				

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

The Surrogate Recovery was at 116 % for this sample All QA/QC was acceptable.  
Lab Note:

ATI results attached.

DF = Dilution Factor Used

Approved By:

*JP*

Date:

9/2/94



Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408313  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
13	945800	NON-AQ	08/01/94	08/04/94	08/07/94	10
14	945801	NON-AQ	08/01/94	08/04/94	08/06/94	1
15	945802	NON-AQ	08/01/94	08/04/94	08/07/94	1
PARAMETER			UNITS	13	14	15
BENZENE			MG/KG	<0.25	<0.025	<0.025
TOLUENE			MG/KG	<0.25	<0.025	<0.025
ETHYLBENZENE			MG/KG	3.2	<0.025	0.036
TOTAL XYLENES			MG/KG	78	0.042	21

## SURROGATE:

BROMOFLUOROBENZENE (%)	92	231*	116
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\*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE



# RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc.  
4000 Morroe Road  
Farmington, New Mexico 87401  
(505) 326-2262 FAX (505) 326-2388

Borehole # BH 1  
Well #                       
Page 1 of 1

Project Name EPNG PITS  
Project Number 14509 Phase 6000.77  
Project Location Fluorocarbide LSI 70470

Elevation                       
Borehole Location Letter I-S21-T27-R8  
GWL Depth                       
Logged By John LaBarbara  
Drilled By Mike Donahue  
Date/Time Started 7/19/95-0835  
Date/Time Completed -1020

Well Logged By John LaBarbara  
Personnel On-Site McDonahue, D Gotta, D Shaw  
Contractors On-Site                       
Client Personnel On-Site                       
Drilling Method 4.25" NSR  
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: <u>PPM</u> BZ BH <u>NS</u>			Drilling Conditions & Blow Counts
0										
5				Fill						
10										
15										
20	1	18-18.5	2	Dark Gray, SANDSTONE, poorly cemented, fine to coarse, oolite		0	47	<u>1985</u> <u>1146</u>		0977
25	2	23-23.5	4	Light Gray, RR Fm		0	42	<u>10130</u> <u>1235</u>		0900
30	3	28-28.5	3	Light Brown, RR		5	113	<u>10589</u> <u>1142</u>		0986
35	4	33-33.5	9	Brown, v. fine sandy, SILT- STONE, oolite, hard		0	227	<u>10954</u> <u>1285</u>		0919
40	5	38-38.5	5	Brown, fine to med, SAND- STONE, poorly cemented, oolite. TOB at 38-33' - Refusal		5	372	<u>10902</u> <u>1187</u>	Refusal	0933

Comments: Sample JFL11 sent for BTEX/TPH lab analysis.

Geologist Signature John LaBarbara



## CHAIN OF CUSTODY RECORD

[illegible]



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

Phase II Drilling  
Fluoroc D L51  
(38-38-3')

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JFL 12	947036
MTR CODE   SITE NAME:	70470	N/A
SAMPLE DATE   TIME (Hrs):	07-19-95	09:33
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	7-20-95	7-20-95
DATE OF BTEX EXT.   ANAL.:	7-21-95	7-22-95
TYPE   DESCRIPTION:	VG	light brown sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	20.5	MG/KG	20			
TOLUENE	20.5	MG/KG	20			
ETHYL BENZENE	1.8	MG/KG	20			
TOTAL XYLENES	19	MG/KG	20			
TOTAL BTEX	20.8	MG/KG				
TPH (418.1)	805	MG/KG			2.00	28
HEADSPACE PID	10907	PPM				
PERCENT SOLIDS	93.8	%				

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

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

Narrative:

ATI Results for BTEX and modified 8015 attached. Surrogate recovery was not available obtainable due to sample dilution.

DF = Dilution Factor Used

calculated



Analytical Technologies, Inc.

## GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 507388  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHII DRILL I

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947020	NON-AQ	07/18/95	07/24/95	07/24/95	1
02	947028	NON-AQ	07/18/95	07/21/95	07/22/95	1
03	947036	NON-AQ	07/19/95	07/21/95	07/22/95	20
PARAMETER			UNITS	01	02	03
BENZENE			MG/KG	<0.025	<0.025	<0.5
TOLUENE			MG/KG	<0.025	<0.025	<0.5
ETHYLBENZENE			MG/KG	<0.025	<0.025	1.8
TOTAL XYLENES			MG/KG	<0.025	<0.025	19

### SURROGATE:

BROMOFLUOROBENZENE (%) 103 95 NA\*

\*SURROGATE RECOVERY NOT OBTAINABLE DUE TO SAMPLE DILUTION



Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 507388  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHII DRILL I

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947020	NON-AQ	07/18/95	07/21/95	07/23/95	1
03	947036	NON-AQ	07/19/95	07/21/95	07/24/95	10
06	947039	NON-AQ	07/19/95	07/21/95	07/24/95	10
PARAMETER			UNITS	01	03	06
FUEL HYDROCARBONS			MG/KG	56	1600	2700
HYDROCARBON RANGE				C6-C28	C6-C14	C6-C14
HYDROCARBONS QUANTITATED USING				DIESEL	GASOLINE	GASOLINE

SURROGATE:

O-TERPHENYL (%)

105

107

105