

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

30-045-23115

Operator: Texaco *by EPFS* Telephone \_\_\_\_\_

Address: \_\_\_\_\_

Facility Or: Garrett B#1, Meter 90315  
Well Name \_\_\_\_\_

Location: Unit or Qtr/Qtr Sec J Sec 12 T 29 R 11 County San Juan

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

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

Pit Location: Pit dimensions: length 22', width 21', depth 2'  
(Attach diagram)

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

Footage from reference: 64'

Direction from reference: 9 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: 07/15/94 Date completed: 09/17/94

Remediation Method: Excavation \_\_\_\_\_ Approx. cubic yards \_\_\_\_\_

(Check all appropriate sections.)

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

Other Backfill pit without excavation

Remediation Location: Onsite N/A Offsite N/A  
(i.e. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remedial Action: EPNG lines marked. Soil gray, strong hydrocarbon odor.

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 09/17/94 Sample time 13:55

Sample Results

Benzene(ppm) Not reported.

Total BTEX(ppm) Not reported.

Field headspace(ppm) 491

TPH 1400

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  
and Title

SCOTT T. POPE  
Senior ENV. Scientist



## PIT CLOSURE REQUEST

Garrett B #1  
Meter/Line ID 90315

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### SITE DETAILS

Legals - Twn: 29N

Rng: 11W

Sec: 12

Unit: J

NMOCD Hazard Ranking: 10

Land Type: FEE

Operator: Texaco E&P Inc

Pit Closure Date: 7/15/94

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### RATIONALE FOR RISK-BASED CLOSURE

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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. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 491 ppm; laboratory analysis indicated a TPH concentration of 1,400 mg/kg. The TPH measurement exceeded recommended remediation levels for the Hazard Ranking Score of 10.

No soil was disposed of offsite. The pit was backfilled with site soil, topped with clean soil from the surrounding berms, and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to bedrock refusal at 21 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 20-21 ft bgs. Headspace analysis indicated an organic vapor content of 0 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of <3 mg/kg, and a TPH concentration of <20 mg/kg. The benzene, total BTEX, and TPH 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.
- Bedrock sandstone was encountered at 21 feet bgs making further contaminant migration unlikely.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- The clean soil from the berms placed on top of the excavation would limit the potential for direct contact with hazardous constituents by livestock or the public; i.e., current direct contact exposure pathways are unlikely to be completed.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
- Groundwater was not encountered in the soil boring at 21 ft bgs; local geologic features indicate the depth to groundwater is greater than 50 ft bgs.



## **PIT CLOSURE REQUEST**

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- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 21 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.
- Residual hydrocarbons, if any, in the soil will likely degrade by natural attenuation with minimal risk to the environment.

### **ATTACHMENTS**

Field Pit Assessment Form

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase II Soil Boring Log

Laboratory Analytical Results

# REVISED FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 90315 Location: Garrett B#1  
 Operator #: \_\_\_\_\_ Operator Name: \_\_\_\_\_ P/L District: \_\_\_\_\_  
 Coordinates: Letter: J Section 12 Township: 29 Range: 11  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 4/9/98 Area: \_\_\_\_\_ Run: \_\_\_\_\_

SITE ASSESSMENT

**NMOCD Zone:**

(From NMOCD  
Maps)

Inside

Outside

**Land Type:**

☐ (1)

☒ (2)

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 \_\_\_\_\_

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

Distance to Nearest Ephemeral Stream

☐ (1) < 100' (Navajo Pits Only)

☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 10 POINTS

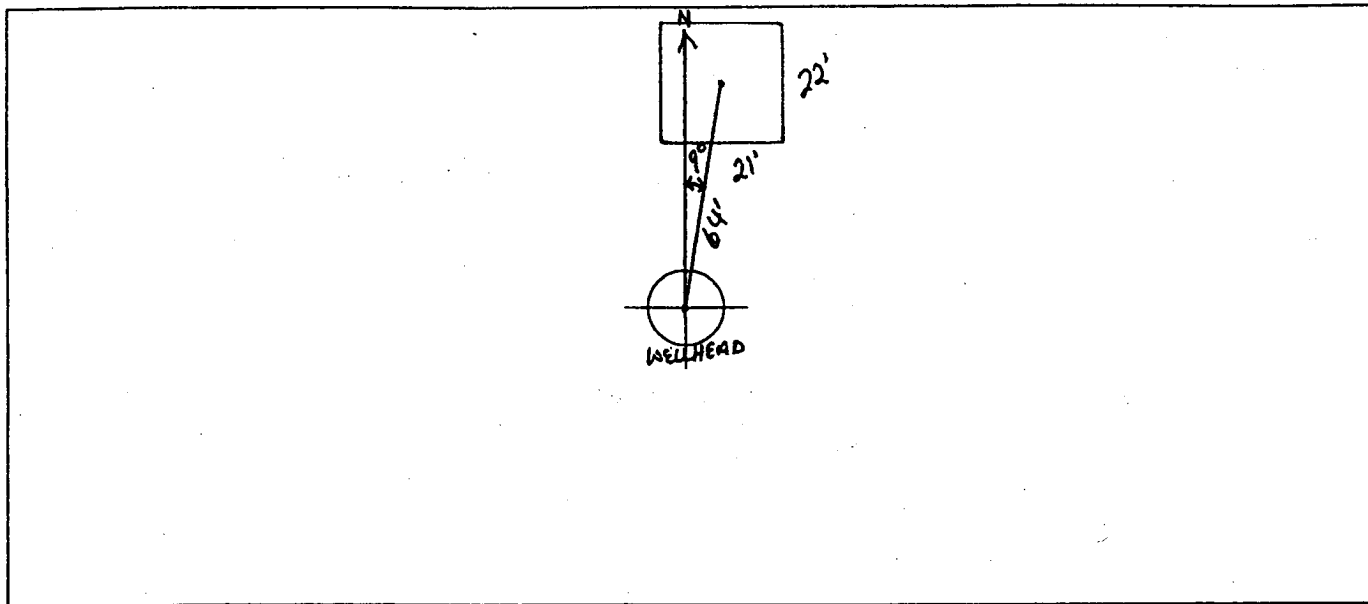
REMARKS

Remarks : Site has been re-assessed, due to initial assessment including washes as a Surface Water Body. Site is <100' vertical from center of Hare Canyon

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 9° Footage from Wellhead 64'  
b) Length : 22' Width : 21' Depth : 2'



REMARKS

Remarks :

TOOK PICTURES AT 2:52 P.M.

END DUMP

Completed By:

Robert Thompson

Signature

5.18.94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 90315 Location: CARRETT B#1  
 Coordinates: Letter: I Section 12 Township: 29 Range: 11  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : \_\_\_\_\_ Run: 10 93

FIELD OBSERVATIONS

Sample Number(s): MK142  
 Sample Depth: 12' Feet  
 Final PID Reading 491 PID Reading Depth 12' Feet  
 Yes No  
 Groundwater Encountered ☐ ☒ Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
 Excavation ☐ Approx. Cubic Yards \_\_\_\_\_  
 Onsite Bioremediation ☐  
 Backfill Pit Without Excavation ☒  
 Soil Disposition:  
 Envirotech ☐ ☐ Tierra  
 Other Facility ☐ Name: \_\_\_\_\_  
 Pit Closure Date: 7-15-94 Pit Closed By: BEK

REMARKS

Remarks : EPNG links marked Soil Gray strong  
Hydrocarbon odor

Signature of Specialist: Morgan Killian



# FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

### PIT CLOSURE PROJECT - Soil

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 142	945692
MTR CODE   SITE NAME:	90315	N/A
SAMPLE DATE   TIME (Hrs):	7-15-94	1355
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	7/19/94	7/19/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	Brown Grey Med. Sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE		MG/KG				
TOLUENE		MG/KG				
ETHYL BENZENE		MG/KG				
TOTAL XYLENES		MG/KG				
TOTAL BTEX		MG/KG				
TPH (418.1)	1400	MG/KG			1.99	28
HEADSPACE PID	491	PPM				
PERCENT SOLIDS	<del>88.18</del> 88.7	%				

- TPH is by EPA Method 418.1 and BTEX is by EPA Method 820 -

The Surrogate Recovery was at  
Narrative:

N/A

% for this sample All QA/QC was acceptable.



# RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road  
Albuquerque, New Mexico 87401  
(505) 226-2262 FAX (505) 326-2388

Borehole # BH-1  
Well # NA  
Page 1 of 1

Project Number 19643 Phase 1001.77  
Project Name EPFS PITS >10  
Project Location GARRETT B#1590315

Elevation \_\_\_\_\_  
Borehole Location LTR: J S: 12 T: 29 R: 11  
GWL Depth NA  
Drilled By K. PADILLA  
Well Logged By H. BRADBURY  
Date Started 9/10/98  
Date Completed 9/10/98

Drilling Method 4 1/4 ID HSA  
Air Monitoring Method PID

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			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5										
10				EXCAVATION SAMPLE COLLECTED AT 12'						
15	1	15-17	12	LT BR SILTSTONE, MOD CEMENTED. dry			0	0	0 1	1331 1234 hrs #8
20	2	20-21	12	LT BR SANDSTONE. FINE SAND, HARD CEMENTATION dry			0	0	0 0	1348 hrs.
25				TOB 21						
30										
35										
40										

Comments: HAB31 20-21' SENT TO LAB FOR TPH, BTEX GW  
NOT ENCOUNTERED BH GROVED TO SURFACE

Geologist Signature

*Holly Bradbury*



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB31	980640
MTR CODE   SITE NAME:	90315	Garrett B #1
SAMPLE DATE   TIME (Hrs):	9/10/98	1348
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	9/15/98	9/17/98
DATE OF BTEX EXT.   ANAL.:	9/14/98	9/14/98
TYPE   DESCRIPTION:	VG	SOIL

Field Remarks: 20-21'

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG				
ETHYL BENZENE	<0.5	MG/KG				
TOTAL XYLENES	<1.5	MG/KG				
TOTAL BTEX	<3	MG/KG				
TPH (MOD.8015)	<20	MG/KG				
HEADSPACE PID	0	PPM				
PERCENT SOLIDS	87.8	%				

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

The Surrogate Recovery was at 101.5 % for this sample All QA/QC was acceptable.  
ative:

DF = Dilution Factor Used

Approved By:

*John Lubben*

Date:

10/1/98



2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

# GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)  
CLIENT : EL PASO FIELD SERVICES  
PROJECT # : (none)  
PROJECT NAME : PHASE II DRILLING

PINNACLE I.D.: 809038

SAMPLE		MATRIX	DATE	DATE	DATE	DIL. FACTOR
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	
16	980639	NON-AQ	9/10/98	9/15/98	9/17/98	1
17	980640	NON-AQ	9/10/98	9/15/98	9/17/98	1

PARAMETER	DET. LIMIT	UNITS	16	17
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0

CALCULATED SUM:

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS

( 66 - 151 )

88

87

CHEMIST NOTES:

N/A

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)	PINNACLE I.D.	: 809038
BLANK I.D.	: 091598	DATE EXTRACTED	: 9/15/98
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 9/16/98
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: PHASE II DRILLING		

PARAMETER	UNITS	
FUEL HYDROCARBONS, C6-C10	MG/KG	< 10
FUEL HYDROCARBONS, C10-C22	MG/KG	< 5.0
FUEL HYDROCARBONS, C22-C36	MG/KG	< 5.0

ERROGATE:  
ERPHENYL (%) 95  
SURROGATE LIMITS (80 - 151)

CHEMIST NOTES:  
N/A

Accepted:  
9-22-98  
J.S.