

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  
Bedrock

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

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

30-039-22564

Operator: Blackwood and Nichols by EPFS Telephone \_\_\_\_\_

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

Facility Or N.E. Blanco Unit #24R, Meter 93886  
Well Name \_\_\_\_\_

Location: Unit or Qtr/Qtr Sec O Sec 17 T 30 R 7 County Rio Arriba

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

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

Pit Location: Pit dimensions: length 23', width 22', depth 3'  
(Attach diagram)

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

Footage from reference: 108'

Direction from reference: 170 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: 07/13/94 Date completed: 07/13/94

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 light gray, hydrocarbon odor. Hit sandstone 4'.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location Four walls and center of pit composite  
Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 4'

Sample Date 07/13/94 Sample time 16:55

Sample Results

Benzene(ppm) Not reported.

Total BTEX(ppm) Not reported.

Field headspace(ppm) 306

TPH 2790

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

N.E. Blanco Unit #2R  
Meter/Line ID 93886

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### SITE DETAILS

Legals - Twn: 30N

Rng: 7W

Sec: 17

Unit: O

NMOCD Hazard Ranking: 10

Land Type: BLM

Operator: Amoco Production Company

Pit Closure Date: 7/13/94

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### 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 4 feet (ft) below ground surface (bgs) where sandstone bedrock was encountered 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 306 ppm; laboratory analysis showed a TPH concentration of 2,790 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 with auger refusal at 7 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 5-6 ft bgs. Headspace analysis indicated an organic vapor content of 443 ppm, laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of 2.64 mg/kg, and a TPH concentration of 1,085 mg/kg. The benzene 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.
- Bedrock was encountered at 4 feet bgs making further vertical migration unlikely and further excavation impractical.
- 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 7 ft bgs; local geologic features indicate the depth to groundwater is greater than 100 ft bgs.

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

GENERAL

Meter: 93886 Location: N.E. BLANCO UNIT # 22  
 Operator #: \_\_\_\_\_ Operator Name: DEVON ENERGY P/L District: \_\_\_\_\_  
 Coordinates: Letter: O Section 17 Township: 30 Range: 7  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator X Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 4.29.98 Area: 10 Run: 82

SITE ASSESSMENT

**NMOCD Zone:** (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)

**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 NAVAJO RESERVOIR  
 (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. LOCATION IS UP ON A BLUFF ABOVE NAVAJO RESERVOIR.



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FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 128	945664
MTR CODE   SITE NAME:	93886	N/A
SAMPLE DATE   TIME (Hrs):	7-13-94	1655
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	7/14/94	7/14/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	fine Brown 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)	2790	MG/KG			2.16	28
HEADSPACE PID	306	PPM				
PERCENT SOLIDS	93.9	%				

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

The surrogate Recovery was at N/A % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By:

Date:

7/17/94

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 93886 Location: NE Blanco unit # 24 R  
 Coordinates: Letter: 0 Section 17 Township: 30 Range: 7  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 7-13-94 Run: 10 82

FIELD OBSERVATIONS

Sample Number(s): mK 128  
 Sample Depth: 4' Feet  
 Final PID Reading 306 PID Reading Depth 4' 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: 7-13-94 Pit Closed By: BEI

REMARKS

Remarks : EPN & LINES marked soil light gray slight  
HYDROCARBON odor Hit sand stone 4'

Signature of Specialist: Morgan Lillian

**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	HAB32	980648
MTR CODE   SITE NAME:	93886	NE Blanco Unit 24R
SAMPLE DATE   TIME (Hrs):	9/14/98	1046
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	9/23/98	9/25/98
DATE OF BTEX EXT.   ANAL.:	9/17/98	9/17/98
TYPE   DESCRIPTION:	VG	SOIL

Field Remarks: 5-6'

**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	2.64	MG/KG				
TOTAL BTEX	2.64	MG/KG				
TPH (MOD.8015)	1,085	MG/KG				
HEADSPACE PID	443	PPM				
PERCENT SOLIDS	93.8	%				

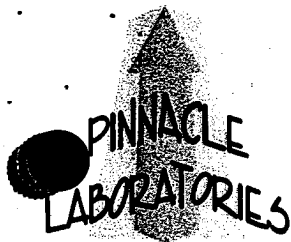
-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 93.2 % for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By: John L. Leland

Date: 10/8/98



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.: 809047

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980648	NON-AQ	9/14/98	9/23/98	9/25/98	1
02	980649	NON-AQ	9/14/98	9/23/98	9/25/98	1
03	980650	NON-AQ	9/14/98	9/23/98	9/25/98	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10	10	MG/KG	55	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	610	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	420	< 5.0	< 5.0
CALCULATED SUM:			1085		

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS

( 66 - 151 )

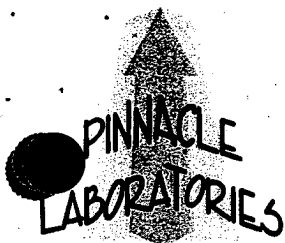
114

103

99

CHEMIST NOTES:

N/A



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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.: 809047

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980651	NON-AQ	9/15/98	9/23/98	9/25/98	1
05	980652	NON-AQ	9/15/98	9/23/98	9/25/98	1
PARAMETER		DET. LIMIT	UNITS	04	05	
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:  
OXYPERPHENYL (%) 101 101  
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:  
N/A

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.  
4000 Monroe Road  
New Mexico 87401  
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 NE BLANCO UNIT # 24R 93886

Elevation  
Borehole Location LTR: 0 S: 17 T: 30 R: 7  
GWL Depth NA  
Drilled By K. PADILLA  
Well Logged By H. BRADBURY  
Date Started 9/14/98  
Date Completed 9/14/98

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				EXCAVATION SAMPLE COLLECTED AT 4'						BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5	1	5-6	4	LTBR SANDSTONE. FINE SAND, LOW-MOD CEMENTED, dry					364 443	1046 hrs hard drilling
10	2			TOB 7			0	60		hrs
15	3									hrs
20										
25										
30										
35										
40										

Notes: HAB32 5-6' SENT TO LAB FOR BTEX, TPH. AUGER  
REFUSAL AT 7' GW NOT ENCOUNTERED BH GROUTED TO  
SURFACE

Geologist Signature H. Bradbury