

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 Production Company Telephone \_\_\_\_\_

Address: 30-045-07115

Facility Or: LS Florance C#9, Meter 72908

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

Location: Unit or Qtr/Qtr Sec KL Sec 30 T 28 R 8 County San Juan

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

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

Pit Location: Pit dimensions: length 26', width 23', depth 3'

(Attach diagram)

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

Footage from reference: 25'

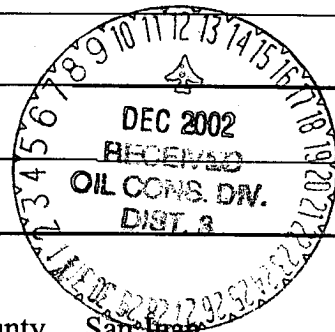
Direction from reference: 195 Degrees X East North \_\_\_\_\_  
of \_\_\_\_\_ West South \_\_\_\_\_

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: 08/08/94 Date completed: 08/08/94

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

(Check all appropriate sections.)

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

## 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. Black soil, very strong hydrocarbon odor.

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 12'

Sample Date 08/08/94 Sample time 11:45

## Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reportedField headspace(ppm) 1524TPH 2350

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. Pomeroy

Printed Name Scott T. Pope  
and Title Senior Env. Scientist



## PIT CLOSURE REQUEST

Florance C #9  
Meter/Line ID 72908

### SITE DETAILS

Legals - Twn: 28N

Rng: 8W

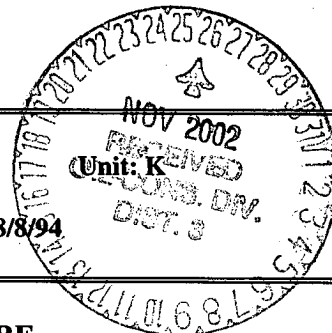
Sec: 30

NMOCD Hazard Ranking: 10

Land Type: BLM

Operator: Amoco Production Company

Pit Closure Date: 8/8/94



### 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) where a soil sample was collected for field headspace analysis and laboratory analysis for TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 1,524 ppm; laboratory analysis indicated a TPH concentration 2,350 mg/kg. The headspace analysis and 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 32 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 30-32 ft bgs. Headspace analysis indicated an organic vapor content of 12 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, TPH and BTEX concentrations were below recommended remediation levels for the Hazard Ranking Score.

No Phase III activities were conducted.

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 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.
- Groundwater was not encountered in the soil boring at 32 ft bgs; local geologic features indicate the depth to groundwater is greater than 50 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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- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 30 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.
- Residual hydrocarbons in the soil will likely degrade by natural attenuation with minimal risk to human health and 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: 72908 Location: Florance C #9  
 Operator #: \_\_\_\_\_ Operator Name: \_\_\_\_\_ P/L District: \_\_\_\_\_  
 Coordinates: Letter: L Section: 30 Township: 28 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 4/8/98 Area: \_\_\_\_\_ Run: \_\_\_\_\_

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 \_\_\_\_\_  
 (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 Blanco Canyon Wash.

# FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 72908 Location: Florange C9  
 Operator #: 0203 Operator Name: AMDCD P/L District: Blanco  
 Coordinates: Letter: L Section 3D Township: 28 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 5/16/94 Area: 03 Run: 82

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD  
Maps)

Inside

Outside

Land Type:

BLM

State

Fee

Indian

☒ (1)

☐ (2)

☐ (3)

☐ (1)

☒ (2)

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 Blanco Canyon (closest)

(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: 10 POINTS

REMARKS

Remarks : Redline-Outside, Vuln-Outside  
3 pits. Close 1. Pit Dry. (Dehy next to pit but discharging into another pit right next to it)

PUSH-IN

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 72908 Location: Florence C<sup>49</sup>  
 Coordinates: Letter: 1 Section 30 Township: 28 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 8-8-94 Run: 03 82

FIELD OBSERVATIONS

Sample Number(s): MK235  
 Sample Depth: 12' Feet  
 Final PID Reading 1524 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: 8-8-94 Pit Closed By: BEI

REMARKS

Remarks : EPNG lines marked Black sand very strong  
H<sub>2</sub>O carbon odor

Signature of Specialist: Morgan Killian



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk235	945868
MTR CODE   SITE NAME:	72908	N/A
SAMPLE DATE   TIME (Hrs):	8-8-94	1145
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8-9-94	8-9-94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	light coarse sand black

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	2350	MG/KG			2.03	28
HEADSPACE PID	1524	PPM				
PERCENT SOLIDS	90.7	%				

-- TPH is by EPA Method 418.1 --

narrative:

F = Dilution Factor Used

Prepared By:

J. J.

Date:

8/12/94





# RECORD OF SUBSURFACE EXPLORATION

SLIP SERVICES CORP.

0 M. Road  
New Mexico 87401  
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 FLORENCE C#9 72908

Location  
Borehole Location LTR: L S: 30 T: 28 R: 8  
ML Depth NA  
Filled By K. PADILLA  
Well Logged By H. BRADBURY  
Date Started 11/2/98  
Date Completed 11/2/98

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	24	DK GR SANDY CLAY. FINE SAND, low plasticity, <del>MOSE</del> soft dry			2	171	970 1471	1136 hrs
20	2	20-22	24	DK GR SANDY CLAY. FINE SAND LOW plasticity, soft, dry high			0	25	856 883	1143 hrs
25	3	25-27	24	DK GR SANDY CLAY. FINE SAND, MOD plasticity, soft dry			0	162	130 47	1150 hrs
30	4	30-32	24	DK GR SANDSTONE, FINE SAND, MOD CEMENTATION, dry			0	293	44 12	1200 hrs
35				TOB 32'						
40										

Notes: HAB61 30-32' SENT TO LAB FOR TPH, BTEX GW NOT ENCOUNTERED  
BH GROUTED TO SURFACE

Geologist Signature

H. Bradbury



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

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	HAB61	980773
MTR CODE   SITE NAME:	72908	Florance C #9
SAMPLE DATE   TIME (Hrs):	11/2/98	1200
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	11/10/98	11/10/98
DATE OF BTEX EXT.   ANAL.:	11/9/98	11/9/98
TYPE   DESCRIPTION:	VG	SOIL

Field Remarks: 30-32'

**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	12	PPM				
PERCENT SOLIDS	87.1	%				

-- TPH is by EPA Method 8015 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 102.9 % for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By: 

Date: 12/3/98



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.: 811025

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980771	NON-AQ	11/2/98	11/10/98	11/10/98	1
02	980772	NON-AQ	11/2/98	11/10/98	11/12/98	20
03	980773	NON-AQ	11/2/98	11/10/98	11/10/98	1
PARAMETER		DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10		10	MG/KG	13	8000	< 10
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	160	1300	< 5.0
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	120	320	< 5.0
CALCULATED SUM:				293	9620	
SURROGATE:						
O-TERPHENYL (%)				89	97	99
SURROGATE LIMITS		( 66 - 151 )				

CHEMIST NOTES:  
N/A



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Albuquerque, New Mexico 87107  
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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.: 811025

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980774	NON-AQ	11/5/98	11/10/98	11/10/98	1
05	980775	NON-AQ	11/5/98	11/10/98	11/10/98	1
06	980776	NON-AQ	11/5/98	11/10/98	11/10/98	1
PARAMETER		DET. LIMIT	UNITS	04	05	06
FUEL HYDROCARBONS, C6-C10		10	MG/KG	76	< 10	< 10
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	96	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	33	< 5.0	< 5.0
CALCULATED SUM:				205		
SURROGATE:						
O-TERPHENYL (%)				88	86	89
SURROGATE LIMITS		( 66 - 151 )				

CHEMIST NOTES:  
N/A

# BTEX SOIL SAMPLE WORKSHEET

File	:	980773	Date Printed	:	11/15/98
Soil Mass (g)	:	5.02	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):	:	200
Shot Volume (uL)	:	50	CAL FACTOR (Report):	:	0.19920

		DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L)	:	<0.5	Benzene (mg/Kg): #VALUE!	0.498
Toluene (ug/L)	:	<0.5	Toluene (mg/Kg): #VALUE!	0.498
Ethylbenzene (ug/L)	:	<0.5	Ethylbenzene (mg/Kg): #VALUE!	0.498
p & m-xylene (ug/L)	:	<1.0	p & m-xylene (mg/Kg): #VALUE!	0.996
o-xylene (ug/L)	:	<0.5	o-xylene (mg/Kg): #VALUE!	0.498
			Total xylenes (mg/Kg): #VALUE!	1.494
			Total BTEX (mg/Kg): #VALUE!	