

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

30-045-20966

Operator: Amoco *by EPFS* Telephone: _____

Address: _____

Facility Or Annie L. Elliott B#7, Meter 87477

Well Name _____

Location: Unit or Qtr/Qtr Sec L Sec 10 T 29 R 9 County San Juan

Pit Type: Separator _____ Dehydrator _____ Other Drip

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

Pit Location: Pit dimensions: length 15', width 14', depth 2'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 144'

Direction from reference: 145 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: 06/07/94 Date completed: 06/07/94

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: Soil was black, strong hydrocarbon odor smell. Change to gray at sample depth. EPNG lines were marked.

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 06/07/94 Sample time 14:05

Sample Results

Benzene(ppm) Not reported.

Total BTEX(ppm) Not reported.

Field headspace(ppm) 172

TPH 3590

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

Annie L. Elliott B #7
Meter/Line ID 87477

SITE DETAILS

Legals - Twn: 29N

Rng: 9W

Sec: 10

Unit: L

NMOCD Hazard Ranking: 10

Land Type: BLM

Operator: Amoco Production Company

Pit Closure Date: 6/7/94

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. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 172 ppm and a TPH concentration of 3,590 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 47 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 45-47 ft bgs. Headspace analysis indicated an organic vapor content of 8 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 activities were conducted.

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 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 47 ft bgs; local geologic features indicate the depth to groundwater is greater than 50 ft bgs.
- Benzene and total BTEX concentrations at the base of the test pit (12 feet bgs) were below recommended remediation levels for the Hazard Ranking Score.

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 87477 Location: Annie L. Elliott B#7
 Operator #: _____ Operator Name: _____ P/L District: _____
 Coordinates: Letter: L Section 10 Township: 29 Range: 9
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 2/26/98 Area: _____ Run: _____

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD

Maps)

Inside

Outside

Land Type:

☐ (1)

☒ (2)

BLM

State

Fee

Indian

☒ (1)

☐ (2)

☐ (3)

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 Feet From center of Manzaneros Canyon.



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 18	945392
MTR CODE SITE NAME:	87477	N/A
SAMPLE DATE TIME (Hrs):	6-7-94	1405
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	6/10/94	6/10/94
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	YG	Grey Fine 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)	3590	MG/KG			2.08	28
HEADSPACE PID	172	PPM				
PERCENT SOLIDS	92.7	%				

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

Spontaneous Recovery was at N/A % for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By:

[Signature]

Date:

6/16/94

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 87477 Location: ANNIE L. Elliot B#7
 Coordinates: Letter: L Section 10 Township: 29 Range: 9
 Or Latitude _____ Longitude _____
 Date Started : 6-7-94 Area: 10 Run: 53

FIELD OBSERVATIONS

Sample Number(s): MY 18
 Sample Depth: 12' Feet
 Final PID Reading 172 PID Reading Depth 12' Feet
 Yes No
 Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☐ (1) Approx. Cubic Yards _____
 Onsite Bioremediation ☐ (2)
 Backfill Pit Without Excavation ☒ (3)
 Soil Disposition:
 Envirotech ☐ (1) ☐ (3) Tierra
 Other Facility ☐ (2) Name: _____
 Pit Closure Date: 6-7-94 Pit Closed By: BEI

REMARKS

Remarks : Soil has black strong HYDROCARBON smell change to gray at sample depth EPNG lines were marked

Signature of Specialist: Morgan Killion

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB16	980610
MTR CODE SITE NAME:	87477	Annie L Elliott B #7
SAMPLE DATE TIME (Hrs):	9/2/98	0945
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	9/15/98	9/16/98
DATE OF BTEX EXT. ANAL.:	9/14/98	9/14/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 45-47'

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	8	PPM				
PERCENT SOLIDS	97.4	%				

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

The Surrogate Recovery was at 95.0 % for this sample All QA/QC was acceptable.

Reactive:

DF = Dilution Factor Used

Approved By: _____

John Larkin

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			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980610	NON-AQ	9/2/98	9/15/98	9/16/98	1
02	980611	NON-AQ	9/2/98	9/15/98	9/16/98	1
03	980612	NON-AQ	9/2/98	9/15/98	9/16/98	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	390	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	93	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0
CALCULATED SUM:				483	

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS (66 - 151)

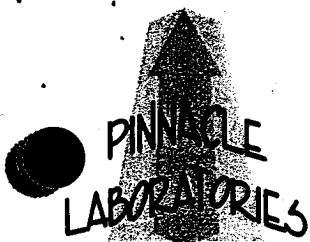
94

91

92

CHEMIST NOTES:

N/A



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.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980613	NON-AQ	9/3/98	9/15/98	9/16/98	1
05	980614	NON-AQ	9/3/98	9/15/98	9/16/98	1
06	980615	NON-AQ	9/3/98	9/15/98	9/16/98	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	28	57
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0	5.3
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0
CALCULATED SUM:				28	62.3

SURROGATE:
O-TERPHENYL (%) 90 90 91
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:
N/A



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.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	980616	NON-AQ	9/3/98	9/15/98	9/16/98	1
08	980624	NON-AQ	9/4/98	9/15/98	9/16/98	1
09	980625	NON-AQ	9/8/98	9/15/98	9/17/98	1
PARAMETER		DET. LIMIT	UNITS	07	08	09
FUEL HYDROCARBONS, C6-C10		10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	< 5.0	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	< 5.0	< 5.0	< 5.0

CULATED SUM:

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS

(66 - 151)

88

87

91

CHEMIST NOTES:

N/A



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			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
10	980626	NON-AQ	9/4/98	9/15/98	9/17/98	10
11	980627	NON-AQ	9/8/98	9/15/98	9/17/98	1
12	980635	NON-AQ	9/9/98	9/15/98	9/17/98	1

PARAMETER	DET. LIMIT	UNITS	10	11	12
FUEL HYDROCARBONS, C6-C10	10	MG/KG	2400	68	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 50	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 50	< 5.0	< 5.0

CALCULATED SUM:

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS

(66 - 151)

119

87

92

CHEMIST NOTES:



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			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
13	980636	NON-AQ	9/9/98	9/15/98	9/17/98	10
14	980637	NON-AQ	9/9/98	9/15/98	9/17/98	10
15	980638	NON-AQ	9/10/98	9/15/98	9/17/98	1

PARAMETER	DET. LIMIT	UNITS	13	14	15
FUEL HYDROCARBONS, C6-C10	10	MG/KG	10000	170	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	1200	1600	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 50	380	< 5.0
CALCULATED SUM:			11200	2150	

SURROGATE:

O-TERPHENYL (%)

SURROGATE LIMITS

(66 - 151)

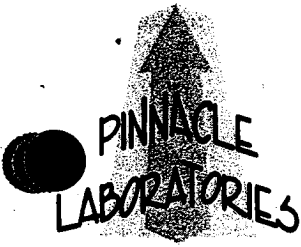
122

131

87

CHEMIST NOTES:

N/A



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.
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:
BIPHENYL (%)
SURROGATE LIMITS

(66 - 151)

88

87

CHEMIST NOTES:
N/A

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

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

Borehole # BH-1
Well # NA
Page 1 of 2

Project Number 19643 Phase 1001.77
Project Name EPFS PITS >10
Project Location ANNIE L ELLIOT B#7 87477

Elevation _____
Borehole Location LTR: L S: 10 T: 29 R: 9
GWL Depth NA
Drilled By K. PADILLA
Well Logged By H. BRADBURY
Date Started 9/2/98
Date Completed 9/2/98

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 BZ BH S/HS			Drilling Conditions & Blow Counts
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5										
10				EXCAVATION SAMPLE COLLECTED AT 12'						
15	1	15-17	24	DK BR silty SAND, FINE SAND LOOSE, dry	SM		0	213	<u>459</u> <u>745</u>	0858 hrs
20	2	20-22	24	LT BR SAND, FINE SAND TR. MED. LOOSE, dry	SW		0	31	<u>423</u> <u>653</u>	0904 hrs
25	3	25-27	24	LT BR SAND, MED SAND LOOSE, dry	SW		0	366	<u>506</u> <u>608</u>	0911 hrs
30	4	30-32	24	LT BR SAND, MED SAND TR COARSE, LOOSE, dry	SW		0	134	<u>573</u> <u>573</u>	0918 hrs
35	5	35-37	18	LT BR silty SAND, FINE SAND, LOOSE, dry	SM		1	359	<u>552</u> <u>280</u>	0926 hrs
40	6	40-42	18"	LT BR SAND, MED SAND, LOOSE, dry	SW		0	34	<u>56</u> <u>54</u>	0934 hrs

Comments:

Geologist Signature

Holly Bradbury

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

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

Borehole # BH-1
Well # NA
Page 2 of 2

Project Number 19643 Phase 1001.77
Project Name EPFS PITS >10
Project Location ANNIE L ELLIOT B#7 87477

Elevation _____
Borehole Location LTR: L S: +0 T: 29 R: 7
GWL Depth NA
Drilled By K. PADILLA
Well Logged By H. BRADBURY
Date Started 9/2/98
Date Completed 9/2/98

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
45	7	45-47	12"	LT BR silty SAND, FINE SAND, LOOSE, dry	SM		0	26	64 8	0945 hrs
10				TOB 47						
15										
20										
25										
30										
35										
40										

Comments:

HABILE 45-47 SENT TO LAB FOR TPH, BTEX G W
NOT ENCOUNTERED. BH GROUTED TO SURFACE

Geologist Signature

Holly Bradbury