

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: Meridian Oil, Inc. Telephone: _____

Address: 30-039-05429

Facility Or: Tonkin Federal No. 2, Meter 74907
Well Name _____

Location: Unit or Qtr/Qtr Sec M Sec 17 T 24 R 3 County Rio Arriba

Pit Type: Separator _____ Dehydrator _____ Other Drip

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

Pit Location: Pit dimensions: length 18', width 18', depth 4'
(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 83'

Direction from reference: 126 Degrees X East North _____
of _____ West South _____

Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet to 99 feet	(10 points)
	Greater than 100 feet	(0 points) <u>10</u>

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.)	Yes (20 points)
	No (0 points) <u>0</u>

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	Less than 200 feet	(20 points)
	200 feet to 1000 feet	(10 points)
	Greater than 1000 feet	(0 points) <u>0</u>

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 10/04/94 Date completed: 10/04/94

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: Pit had 10" water in it. 20 yds. Fill.

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 10/04/94 Sample time 14:45

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 239

TPH 7130

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.

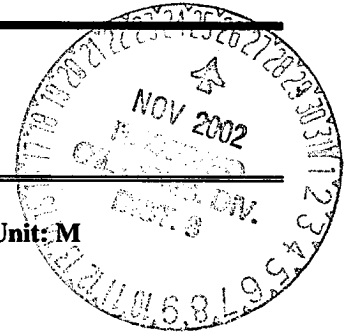
Date 1/8/03
Signature Scott T. Pope

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



PIT CLOSURE REQUEST

**Tonkin Federal No.2
Meter/Line ID 74907**



SITE DETAILS

Legals - Twn: 24N

Rng: 3W

Sec: 17

Unit: M

NMOCD Hazard Ranking: 10

Land Type: Fee

Operator: Meridian Oil Inc.

Pit Closure Date: 10/04/94

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 239 ppm; laboratory analysis indicated a TPH concentration of 7,130 mg/kg. The field 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 as well as 20 cubic yards of imported clean fill, and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to refusal at 27 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 25-27 ft bgs. Headspace analysis indicated an organic vapor content of 6 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 in combination with the imported clean fill 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 27 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

- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 25 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 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	<p>Meter: <u>74907</u> Location: <u>Tonkin Federal #2</u></p> <p>Operator #: _____ Operator Name: _____ P/L District: _____</p> <p>Coordinates: Letter: <u>M</u> Section <u>17</u> Township: <u>24</u> Range: <u>3</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>4/14/98</u> Area: _____ Run: _____</p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p style="margin-left: 150px;">Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p>Land Type:</p> <p style="margin-left: 150px;">BLM <input type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input checked="" type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater</p> <p style="margin-left: 50px;">Less Than 50 Feet (20 points) <input type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input checked="" type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Wellhead Protection Area</p> <p>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?</p> <p style="text-align: center;"><input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body</p> <p style="margin-left: 50px;">Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(Surface Water Body: Perennial Rivers, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>10</u> POINTS</p>
REMARKS	<p>Remarks : <u>Site has been re-assessed, due to initial assessment including washes as a Surface Water Body. Site is <100' vertical from center of Medio Canyon</u></p>

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 74907 Location: TanKin Federal No. 2
 Operator #: 2999 Operator Name: MOI P/L District: OSITO
 Coordinates: Letter: M Section 17 Township: 24 Range: 3
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____
 Site Assessment Date: 8/3/94 Area: 08 Run: 83

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 Medio Canyon

(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: _____ POINTS

REMARKS

Remarks : Redline Book - Inside Vulnerable Zone Tap - Outside
Pit will close. Liquid in pit

PUSH-IN



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW 373	946327
MTR CODE SITE NAME:	74907	N/A
SAMPLE DATE TIME (Hrs):	10-4-94	1445
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	10-6-94	
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	V6	Brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	7130	MG/KG			0.43	28
HEADSPACE PID	239	PPM				
PERCENT SOLIDS	88.3	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

10-13-94

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>74907</u> Location: <u>Tenkin Federal #2</u></p> <p>Coordinates: Letter: <u>M</u> Section <u>17</u> Township: <u>24</u> Range: <u>3</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10-4-94</u> Run: <u>08</u> <u>83</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>VW 373</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>239</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>10-4-94</u> Pit Closed By: <u>BEI</u></p>
REMARKS	<p>Remarks : <u>Pit had 10" water in it.</u> <u>20 yds fill</u></p> <p>_____</p> <p>_____</p>
	<p>Signature of Specialist: <u>Vale Wilson</u></p>

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER		PROJECT NAME		CONTRACT LABORATORY P. O. NUMBER	
Pit Closure Project # 24324					
SAMPLERS: (Signature) <i>Val - Wilson</i>		DATE: 10-4-94			
LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER	REMARKS
94 4325	10-4-94	1215	Soil	UW371	
94 4326	10-4-94	1315	Soil	UW372	
94 4327	10-4-94	1445	Soil	UW373	
94 4328	10-4-94	1610	Soil	UW374	
(The following rows are crossed out with a large diagonal line)					

REQUESTED ANALYSIS		TOTAL NUMBER OF CONTAINERS		SAMPLE TYPE		TPH EPA 418.1		BTX EPA 8020		Sg #	
		1		1	UG	X				332	
		1		1	UG	X				333	
		1		1	UG	X				334	
		1		1	UG	X				335	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Val Wilson</i>	10-4-94 1900	<i>Brenda Liss</i>	10-5-94 1125		
				<i>Kim King</i>	

REQUESTED TURNAROUND TIME:	ROUTINE	RUSH	CARRIER CO.	CHARGE CODE	RESULTS & INVOICES TO:
	<input type="checkbox"/>	<input type="checkbox"/>			FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX: 505-599-2261



Natural Gas Company

Phase II Drilling

CHAIN OF CUSTODY RECORD

9-3-98 Prod.
9-3-98 Clear.

Page 1 of 1[illegible]

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

EM-OR-0555 A (Rev 05-94)

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 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 TONKIN FEDER21 #2 74907

Elevation _____

Borehole Location LTR: M S: 17 T: 24 R: 3

GWL Depth NA

Drilled By K. PADILLA C. LOVATO

Well Logged By C. CHANCE H. BRADBURY

Date Started 8/6/98 HAB 8/7/98 B/7/98

Date Completed 8/7/98

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 was collected at 12'						
15	1	15-17	12"	DK brown sandy CLAY, med stiff, med plasticity, DRY	CI		0	219	$\frac{18}{190}$	1100 hrs
20	2	20-22'	12	H. br silty SAND, tr. med, fine loose, dry	SM		2	93	$\frac{20}{25}$	1114 hrs
25	3	25-27'	18'	H br. silty SAND, FINE, loose dry	SM		18 25	6 25		1127 hrs
30				TOB 27'						
35										
40										

Comments:

SAMPLE HAB2 collected from 25-27' and sent to lab for TPH & BTEX
GW NOT ENCOUNTERED BOREHOLE GROUTED TO SURFACE

Geologist Signature

Holly Bradbury

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB2	980561
MTR CODE SITE NAME:	74907	Tonkin Federal #2
SAMPLE DATE TIME (Hrs):	8/7/98	1127
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	8/13/98	8/14/98
DATE OF BTEX EXT. ANAL.:	8/10/98	8/11/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 25-27'

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	6	PPM				
PERCENT SOLIDS	91.2	%				

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

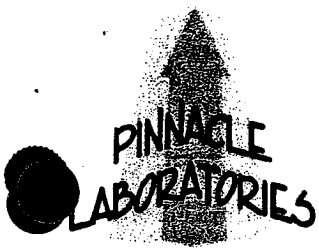
The Surrogate Recovery was at 86.8 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John L. Smith

Date: 8/25/98



GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 808033

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980539	NON-AQ	8/3/98	8/13/98	8/14/98	1
02	980540	NON-AQ	8/3/98	8/13/98	8/14/98	1
03	980559	NON-AQ	8/6/98	8/13/98	8/14/98	1
PARAMETER		DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10		10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	22	< 5.0	5.4
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	15	< 5.0	8.4
CALCULATED SUM:				37		13.8
SURROGATE:						
O-TERPHENYL (%)				107	95	104
SURROGATE LIMITS				(66 - 151)		

CHEMIST NOTES:
N/A



GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 808033

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980560	NON-AQ	8/6/98	8/13/98	8/14/98	1
05	980561	NON-AQ	8/7/98	8/13/98	8/14/98	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:
O-TERPHENYL (%) 91 91
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:

N/A

PROJECT MANAGER: John Lambdin
COMPANY: El Paso Field Services Co.
ADDRESS: 770 W. NAVAJO
FARMINGTON, NM 87401
PHONE: (505) 599-2144
FAX: (505) 599-2261
BILL TO: Above
COMPANY:
ADDRESS:

[illegible][illegible]

PROJECT INFORMATION	(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK (NORMAL) <input checked="" type="checkbox"/>			RECEIVED BY: DATE: TIME:	
PROJ. NO.:	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER			Signature: Printed Name: Date:	
PROJ. NAME: Phase II Drilling	METHANOL PRESERVATION <input type="checkbox"/>			Signature: Printed Name: Date:	
P.O. NO.:	COMMENTS: FIXED FEE <input type="checkbox"/>			Signature: Printed Name: Date:	
SHIPPED VIA: Fed Ex				Signature: Printed Name: Date:	

PLEASE FILL THIS FORM IN COMPLETELY.

BTEX SOIL SAMPLE WORKSHEET

File	:	980561	Date Printed	:	8/12/98
Soil Mass (g)	:	5.06	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):	:	200
Shot Volume (uL)	:	50	CAL FACTOR (Report):	:	0.19763

	DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L) : <0.5	Benzene (mg/Kg):	#VALUE!	0.494
Toluene (ug/L) : <0.5	Toluene (mg/Kg):	#VALUE!	0.494
Ethylbenzene (ug/L) : <0.5	Ethylbenzene (mg/Kg):	#VALUE!	0.494
p & m-xylene (ug/L) : <1.0	p & m-xylene (mg/Kg):	#VALUE!	0.988
o-xylene (ug/L) : <0.5	o-xylene (mg/Kg):	#VALUE!	0.494
	Total xylenes (mg/Kg):	#VALUE!	1.482
	Total BTEX (mg/Kg):	#VALUE!	