

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:                     30-039-60049                    

Facility Or: Canyo Largo Unit #14, Meter 72248  
Well Name                     

Location: Unit or Qtr/Qtr Sec XI Sec 29 T 25 R 7 County Rio Arriba

Pit Type: Separator              Dehydrator              Other Drip

Land Type: BLM X, State             , Fee              Other             

Pit Location: Pit dimensions: length 17', width 16', depth 2

(Attach diagram)

Reference: wellhead X, other                     

Footage from reference: 59

Direction from reference: 1 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: 09/21/94 Date completed: 09/21/94

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: 10 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 09/21/94 Sample time 11:00

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 472

TPH 1950

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. Pore

Printed Name

Scott T. Pore

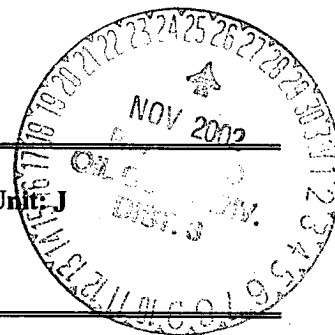
and Title

Senior ENV. Scientist



## PIT CLOSURE REQUEST

Canyon Largo Unit #14  
Meter/Line ID 72248



### SITE DETAILS

Legals - Twn: 25N

Rng: 7W

Sec: 29

Unit: J

NMOCD Hazard Ranking: 10

Land Type: BLM

Operator: Meridian Oil Inc.

Pit Closure Date: 9/21/94

### 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 472 ppm; laboratory analysis indicated a TPH concentration of 1,950 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 10 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 26 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 25-26 ft bgs. Headspace analysis indicated an organic vapor content of 238 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 34 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 26 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 and total BTEX were non-detect at the base of the Phase II boring. TPH concentrations in the soil at 25 ft bgs were about 2% of the concentration at 12 ft bgs, and were below the recommended remediation levels for this site. This strong attenuation with depth indicates that residual hydrocarbons will 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: 72248 Location: Canyon Largo Unit #14  
Operator #: \_\_\_\_\_ Operator Name: \_\_\_\_\_ P/L District: \_\_\_\_\_  
Coordinates: Letter: J Section 29 Township: 25 Range: 7  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator \_\_\_\_\_ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 4/7/98 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. No well shown in Ltr J. A well is in Ltr I. Site is <100' vertical to center of Palluche Canyon

# FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 72248 Location: CANYON LARGE UNIT #14  
 Operator #: 2999 Operator Name: MERIDIAN P/L District: BALLARD  
 Coordinates: Letter: ET 394 Section 29 Township: 25 Range: 7  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 6-23-94 Area: 07 Run: 41

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Land Type: BLM ☒ (1)  
 State ☐ (2)  
 Fee ☐ (3)  
 Indian \_\_\_\_\_  
 Inside ☐ (1)  
 Outside ☒ (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 \_\_\_\_\_

(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 : ONLY PIT ON LOCATION. PIT IS DRY. LOCATION IS IN THE END OF PALLUCHE CANYON ON A SMALL HILL AT THE BASE OF SOME CLIFFS. REDLINE AND TOPO CONFIRMED LOCATION IS OUTSIDE V.Z.

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 316	946185
MTR CODE   SITE NAME:	72248	N/A
SAMPLE DATE   TIME (Hrs):	9-21-94	1100
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	9-22-94	9-22-94
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)	1950	MG/KG			2.00	28
HEADSPACE PID	472	PPM				
PERCENT SOLIDS	84.5	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By: 

Date: 9/20/94

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>72248</u> Location: <u>Canyon Largo Unit #14</u></p> <p>Coordinates: Letter: <u>J</u> Section <u>24</u> Township: <u>25</u> Range: <u>7</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>9-21-94</u> Run: <u>07</u> <u>41</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>Va1316</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>472</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>
<b>CLOSURE</b>	<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"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>9-21-94</u> Pit Closed By: <u>BLI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>10 yds Fill</u></p> <p>_____</p> <p>_____</p>
	<p>Signature of Specialist: <u>Vale Wilson</u></p>





**Natural Gas Company**

## CHAIN OF CUSTODY RECORD

Page \_\_\_\_\_ of \_\_\_\_\_

[illegible]

# 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 1 of 1

Project Number 19643 Phase 1001.77

Project Name EPFS PITS >10

Project Location CANYON LARGO UNIT #17 72248

Elevation

Borehole Location LTR: J S: 29 T: 25 R: 7

GWL Depth NA

Drilled By K. PADILLA

Well Logged By H. BRADBURY

Date Started 11/20/98

Date Completed 11/20/98

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, high plasticity, soft, dry			0	38	482 195	1038 hrs
20	2	20-22	16	DK GR. SANDSTONE, FINE SAND, mod cementation, dry			0	455	481 514	1049 hrs
25	3	25-26		LT BR SANDSTONE, FINE SAND, mod. cementation, dry			0	1	352 238	1106 hrs.
30				T.O.B 26'						
35										
40										

Comments:

HAB 75 (25-26') SENT TO lab for TPH, BTEX GW NOT  
ENCOUNTERED. BH GROUTED TO SURFACE  
AUGER REFUSED at 26'

Geologist Signature

*Holly Bradbury*



## CHAIN OF CUSTODY RECORD

12-28-98 Anal.  
12-29-98 Chem.  
12-29-98 Spec.

Page:

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**White • Testing Laboratory    Canary • EPNG Lab    Pink • Field Sampler**

**FM-08-0565 A (Rev. 05-94)**

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

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	HAB75	980826
MTR CODE   SITE NAME:	72248	Canyon Largo Unit #14
SAMPLE DATE   TIME (Hrs):	11/20/98	1106
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	12/2/98	12/2/98
DATE OF BTEX EXT.   ANAL.:	11/30/98	12/2/98
TYPE   DESCRIPTION:	VG	SOIL

Field Remarks: 25-26'

**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)	34	MG/KG				
HEADSPACE PID	238	PPM				
PERCENT SOLIDS	94.9	%				

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

The Surrogate Recovery was at 97.5 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John L. Linder

Date: 12/2/98



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.: 812003

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980826	NON-AQ	11/20/98	12/2/98	12/2/98	1
02	980827	NON-AQ	11/20/98	12/2/98	12/2/98	1
03	980828	NON-AQ	11/20/98	12/2/98	12/2/98	1
PARAMETER		DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10		10	MG/KG	34	< 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
CALCULATED SUM:				34.0		

SURROGATE:  
O-TERPHENYL (%)  
SURROGATE LIMITS

( 66 - 151 )

88 87 85

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.: 812003

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	980829	NON-AQ	11/25/98	12/2/98	12/2/98	1
05	980830	NON-AQ	11/25/98	12/2/98	12/3/98	10
06	980831	NON-AQ	11/25/98	12/2/98	12/2/98	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	2300	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	1500	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 50	< 5.0
CALCULATED SUM:				3800	

SURROGATE:  
O-TERPHENYL (%) 87 84 90  
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:  
N/A

PROJECT MANAGER: John Lambdin		ANALYSIS REQUEST	
COMPANY: El Paso Field Services		8260 (TCL) Volatile Organics	
ADDRESS: 770 W. NAVAJO		8260 (Full) Volatile Organics	
FARMINGTON, NM 87401		8260 (CUST) Volatile Organics	
PHONE: (505) 599-2144		8260 (Landfill) Volatile Organics	
FAX: (505) 599-2261		Pesticides /PCB (608/8081)	
BILL TO: Above		Herbicides (615/8151)	
COMPANY:		Base/Neutral/Acid Compounds GC/MS (625/8270)	
ADDRESS:		Polynuclear Aromatics (610/8310)	
		General Chemistry:	
		Priority Pollutant Metals (13)	
		Target Analyte List Metals (23)	
		RCRA Metals (8)	
		RCRA Metals by TCLP (Method 1311)	
		Metals:	
		NUMBER OF CONTAINERS	

SHADED AREAS ARE FOR LAB USE ONLY. PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY:	
PROJ. NO.:		(RUSH)   124hr   148hr   172hr   1 WEEK	(NORMAL) <input checked="" type="checkbox"/>	Signature:	Time:
PROJ. NAME: Phase II Drilling		CERTIFICATION REQUIRED:   NM     SDWA     OTHER		Printed Name:	Date:
P.O. NO.:		METHANOL PRESERVATION		Company:	
SHIPPED VIA: Fed Ex		COMMENTS: FIXED FEE <input type="checkbox"/>		RECEIVED BY: (LAB)	2.
SAMPLE RECEIPT				Signature:	Time: 9:45
NO. CONTAINERS	1			Printed Name:	Date: 12/01/98
CUSTODY SEALS	Y/N/A			Company:	American Environmental Network (NM), Inc.
RECEIVED INTAG	Y				
BLUE CENTER	3°C				

# BTEX SOIL SAMPLE WORKSHEET

File	:	980826	Date Printed	:	12/3/98
Soil Mass (g)	:	5.01	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		200
Shot Volume (uL)	:	50	CAL FACTOR (Report):		0.19960

	DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L) : <0.5	Benzene (mg/Kg):	#VALUE!	0.499
Toluene (ug/L) : <0.5	Toluene (mg/Kg):	#VALUE!	0.499
Ethylbenzene (ug/L) : <0.5	Ethylbenzene (mg/Kg):	#VALUE!	0.499
p & m-xylene (ug/L) : <1.0	p & m-xylene (mg/Kg):	#VALUE!	0.998
o-xylene (ug/L) : <0.5	o-xylene (mg/Kg):	#VALUE!	0.499
	Total xylenes (mg/Kg):	#VALUE!	1.497
	Total BTEX (mg/Kg):	#VALUE!	