

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
bedrock
plume
defined

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 Telephone: _____

Address: 30-039-05632

Facility Or: Canyon Largo Unit # 120; Meter 73697
Well Name _____

Location: Unit or Qtr/Qtr Sec N Sec 5 T 24 R 6 County Rio Arriba

Pit Type: Separator _____ Dehydrator _____ Other Drip

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

Pit Location: Pit dimensions: length 17', width 14', depth 1'

(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 80'

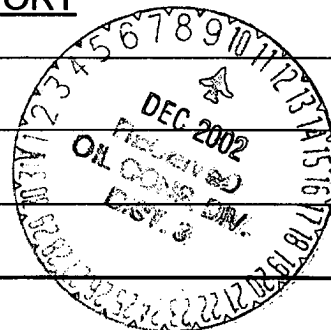
Direction from reference: 354 Degrees X East North _____
of
_____ West South _____

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: 08/25/94 Date completed: 08/25/94

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 gray; strong hydrocarbon odor; hit sandstone at 3'

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 3'

Sample Date 08/25/94 Sample time 15:33

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 197

TPH 4690

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

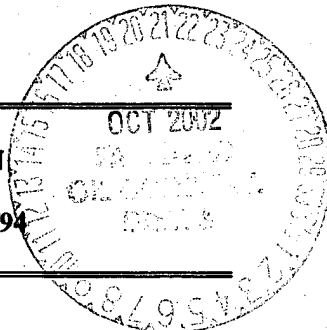
Canyon Largo Unit No. 120
Meter/Line ID 73697

SITE DETAILS

Legals - Twn: 24N
NMOCD Hazard Ranking: 10
Operator: Meridian Oil

Rng: 6

Sec: 5 Unit: N
Land Type: BLM
Pit Closure Date: 08/25/94



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 3 feet (ft) below ground surface (bgs) where bedrock refusal was encountered, and 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 197 ppm; laboratory analysis indicated a TPH concentration of 4,690 mg/kg. The TPH concentration exceeded its recommended remediation level 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 refusal on August 17, 1998 with a total depth of 21 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 20-21 ft bgs. Headspace analysis indicated an organic vapor content of 65 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, 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 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 21 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

- Residual hydrocarbons in the soil will most likely degrade by natural attenuation with minimal risk to the environment.
- Benzene, total BTEX, and TPH concentrations were not detected in the soil sample collected at the base of the Phase 2 soil boring at 21 ft bgs indicating that no significant downward constituent migration is occurring.

ATTACHMENTS

Field Pit Assessment Form

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase 2 Soil Boring Log

Laboratory Analytical Results

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 73-697 Location: Canyon Largo Unit No. 120
 Operator #: 2999 Operator Name: Meridian P/L District: Ballard
 Coordinates: Letter: N Section 5 Township: 24 Range: 6
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
 Site Assessment Date: 07/05/94 Area: 07 Run: 62

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 Rackhouse 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: 20 POINTS

REMARKS

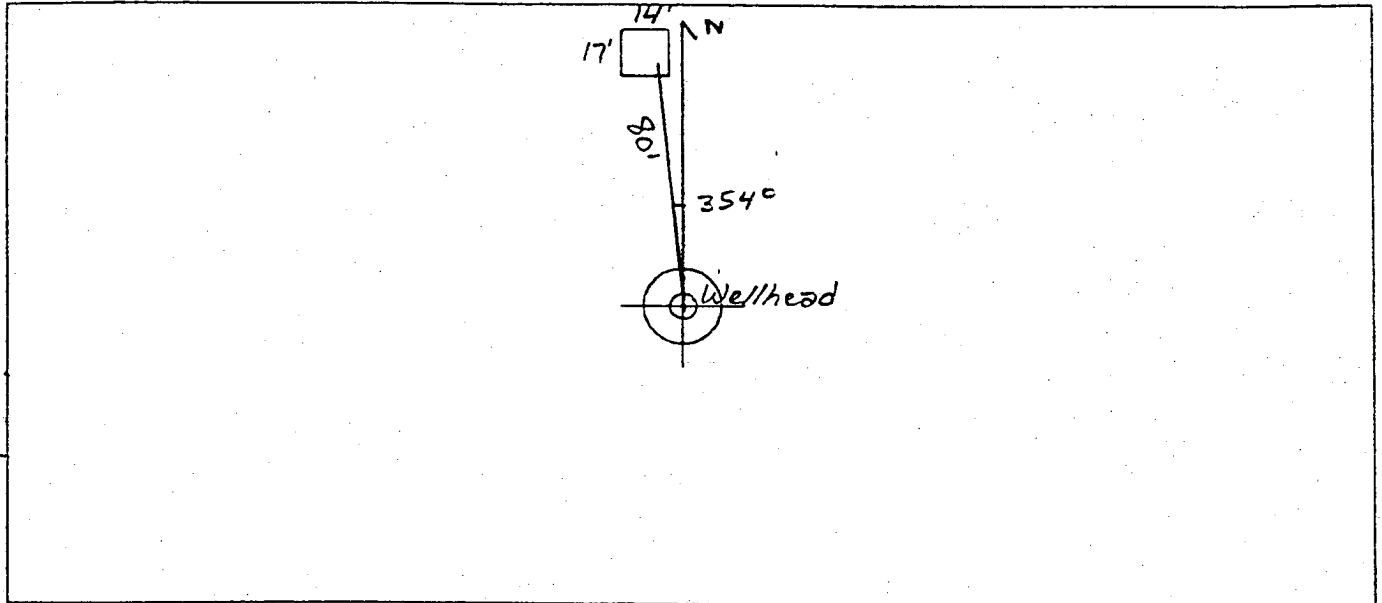
Remarks: Ball. Ball - Outside Wash. Zone Type - Outside
See pit pit is dry will close one pit

Push In

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 354° Footage from Wellhead 80'
b) Length : 17' Width : 14' Depth : 1'



REMARKS

Remarks :

Pictures @ 10:41 (7/6/94) (16-19, Roll 12)End Dump

Completed By:

Scott Kelly
Signature

7/5/94
Date

REVISED FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 73697 Location: Canyon Largo Unit #120
 Operator #: _____ Operator Name: _____ P/L District: _____
 Coordinates: Letter: N Section 5 Township: 24 Range: 6
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 2/25/98 Area: _____ Run: _____

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)

50 Ft to 99 Ft (10 points)

Greater Than 100 Ft (0 points)

☐ (1)

☒ (2)

☐ (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)

200 Ft to 1000 Ft (10 points)

Greater Than 1000 Ft (0 points)

☐ (1)

☐ (2)

☒ (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 marked in Ltr N on map. Used most conservative location on map. Location < 100' vertical feet from center of Rockhouse Canyon.

FIELD IT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 73697 Location: CANYON Largo #120
 Coordinates: Letter: N Section 5 Township: 24 Range: 6
 Or Latitude _____ Longitude _____
 Date Started : _____ Area: 07 Run: 62

FIELD OBSERVATIONS

Sample Number(s): MK292
 Sample Depth: 3' Feet
 Final PID Reading 197 PID Reading Depth 3' 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: 8-25-94 Pit Closed By: BEI

REMARKS

Remarks : EPNG lines marked soil Gray strong HYDROCARBON
odor Hit sand stone 3'

Signature of Specialist: George Hillman



El Paso
Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NAME				CONTRACT LABORATORY P. O. NUMBER							
# 24324											
DATE: 8-25-94											
PROJECT NAME: Wellbore											
DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID	SEQUENCE #	REMARKS	
8-25-94	12:15	Soil	MK 287	1	VG	X			259	Brown soil No Hydrocarbon odor	
8-25-94	13:00	Soil	MK 288	1	VG	X			260	Gray soil Strong Hydrocarbon odor	
8-25-94	14:45	Soil	MK 289	1	VG	X			261	Brown soil No Hydrocarbon odor	
8-25-94	14:45	Soil	MK 290	1	D	X					
8-25-94	14:50	Soil	MK 291	1	B	X					
8-25-94	15:33	Soil	MK 292	1	VG	X			262	Gray soil Strong Hydrocarbon odor	
RELINQUISHED BY: (Signature) Morgan Lillio				DATE/TIME 34		RECEIVED BY: (Signature) Brenda Lillio		DATE/TIME 270		RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)				DATE/TIME 8-25-94 18:00		RECEIVED BY: (Signature)		DATE/TIME 8/26/94 1135		RECEIVED BY: (Signature) Kim V.	
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH				SAMPLE RECEIPT REMARKS				RESULTS & INVOICES TO:			
CARRIER CO.								FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P.O. BOX 4990 FARMINGTON, NEW MEXICO 87499			
FILL NO.:				CHARGE CODE				505-599-2144			
								FAX 505-599-2261			



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	ML 292	946017
MTR CODE SITE NAME:	73697	N/A
SAMPLE DATE TIME (Hrs):	8/25/94	1533
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	8-30-94	8/30/94
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	VG	Light brown sand

REMARKS:

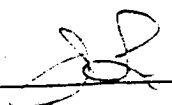
RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	4690	MG/KG			0.54	28
HEADSPACE PID	197	PPM				
PERCENT SOLIDS	87.2	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

red By: 

Date: 9/2/94

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

200 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 CANYON LARGO UNIT #120 73-69

Elevation _____
Borehole Location LTR: N S: 5 T: 24 R: 6
GWL Depth NA
Drilled By K. PADILLA
Well Logged By C. CHANCE H. BRADLEY
Date Started 8/17/98
Date Completed 8/17/98

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 3'						BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5							0	737		-
10	1	10-12	6"	H BR SANDSTONE FINE-MED SAND, MOD CEMENTED			0	528	854 907	1510 hrs
15	2	15-16'	6"	LT. BR SANDSTONE, FINE SAND MOD CEMENTED			3	34	388 273	1518 hrs HARD drilling
20	3	20-21'	4"	H. GR SILTSTONE. MOD-WELL CEMENTED			2	6	41 65	1538 hrs
25				TOB 21						
30										
35										
40										

Comments: HAB 4 (20-21') WAS SENT TO LAB FOR BTEX, TPH. GW NOT
ENCOUNTERED AUGER REFUSED AT 20' BH GROUTED TO SURFACE

Geologist Signature

Holly Bradley



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB4	980575
MTR CODE SITE NAME:	73697	Canyon Largo Unit 120
SAMPLE DATE TIME (Hrs):	8/17/98	1538
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	8/28/98	8/28/98
DATE OF BTEX EXT. ANAL.:	8/24/98	8/26/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 20-21'

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	65	PPM				
PERCENT SOLIDS	94.4	%				

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

The Surrogate Recovery was at 103.2 % for this sample All QA/QC was acceptable.
ative:

DF = Dilution Factor Used

Approved By:

John Fard

Date:

9/14/98

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
 CLIENT : EL PASO FIELD SERVICES PINNACLE I.D.: 808070
 PROJECT # : (none)
 PROJECT NAME : PHASE II DRILLING

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980574	NON-AQ	8/17/98	8/28/98	8/28/98	1
02	980575	NON-AQ	8/17/98	8/28/98	8/28/98	1
03	980576	NON-AQ	8/18/98	8/28/98	8/28/98	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	< 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 (%) 100 151 137
 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.: 808070

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	980577	NON-AQ	8/20/98	8/28/98	8/28/98	1
05	980578	NON-AQ	8/20/98	8/28/98	8/28/98	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 (%)

92

145

SURROGATE LIMITS

(66 - 151)

CHEMIST NOTES:

N/A

PLEASE FILL THIS FORM IN COMPLETELY.

STATE OF NEW MEXICO

PROJECT MANAGER: John Lambdin

COMPANY: El Paso Field Services

ADDRESS: 770 W. Navajo Farmington NM 87401

PHONE: (505) 599-2144

FAX: (505) 599-2261

BILL TO: Above

COMPANY:

ADDRESS:

980574	8/17/98	1247	Soil
980575	8/17/98	1538	Soil
980576	8/18/98	1420	Soil
980577	8/20/98	1042	Soil
980578	8/20/98	1449	Soil

Petroleum Hydrocarbons (418.1) TRPH

(MOD.8015) Diesel/Direct Inject

(M8015) Gas/Purge & Trap

8021 (BTEX)/8015 (Gasoline)

8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE

8021 (TCL)

8021 (EDX)

8021 (HALO)

8021 (CUST)

504.1 EDB ☐ / DBCP ☐

8260 (TCL) Volatile Organics

8260 (Full) Volatile Organics

8260 (CUST) Volatile Organics

8260 (Landfill) Volatile Organics

Pesticides /PCB (608/8081)

Herbicides (615/8151)

Base/Neutral/Acid Compounds GC/MS (625/8270)

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:

PROJ. NO.:

PROJ. NAME: Phase II Drilling

P.O. NO.:

SHIPPED VIA: Fed Ex

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK

(NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

Please send new COCs when Available.

Signature: [Signature]

Printed Name: Marlon Hopper

Date: 8/24/98

Company: EDFS

Signature: [Signature]

Printed Name: [Signature]

Date: [Signature]

Company: [Signature]

Signature: [Signature]

Printed Name: [Signature]

Date: [Signature]

Company: [Signature]

BTEX SOIL SAMPLE WORKSHEET

File	:	980575	Date Printed	:	8/27/98
Soil Mass (g)	:	5.04	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical)	:	200
Shot Volume (uL)	:	50	CAL FACTOR (Report)	:	0.19841

		DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L)	:	<0.5	Benzene (mg/Kg): #VALUE!	0.496
Toluene (ug/L)	:	<0.5	Toluene (mg/Kg): #VALUE!	0.496
Ethylbenzene (ug/L)	:	<0.5	Ethylbenzene (mg/Kg): #VALUE!	0.496
p & m-xylene (ug/L)	:	<1.0	p & m-xylene (mg/Kg): #VALUE!	0.992
o-xylene (ug/L)	:	<0.5	o-xylene (mg/Kg): #VALUE!	0.496
			Total xylenes (mg/Kg): #VALUE!	1.488
			Total BTEX (mg/Kg): #VALUE!	



10-1-98 App:

10-2-98 Deal.
10-2-98 Chon.

CHAIN OF CUSTODY RECORD

Page:

10

FM-08-0585 A (Rev. 05-94)

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