

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR
EPFS GROUNDWATER PITS
1998 CLOSURE REPORT
AUG 16 1999

Approved
HARRINGTON #1
Meter/Line ID - 70079

SITE DETAILS

Legals - Twn: 27N Rng: 7W Sec: 31 Unit: M
NMOCD Hazard Ranking: 30 Land Type: FEDERAL
Operator: BURLINGTON RESOURCES

RECEIVED
APR - 2 1999
OIL CON. DIV.
DIST. 3

PREVIOUS ACTIVITIES

Site Assessment: Jun-94 Excavation: July-94 (50cy) Re-Excavation: Aug-95 (624 cy)
Soil Boring: Mar-97 Monitor Well: Mar-97

The pit was excavated to 12 feet beneath ground surface (bgs) and a composite soil sample was collected from the excavation bottom and four walls. Approximately 50 cubic yards of impacted soil were removed during excavation. The headspace soil reading from the excavation bottom was 317 ppm. Soil analytical was as follows; benzene - <0.25 mg/kg, total BTEX - 83 mg/kg, TPH (418.1) - 2320 mg/kg.

The pit was re-excavated to 12 feet bgs and a composite soil sample was collected from the excavation bottom and four side walls. Approximately 624 additional cubic yards of impacted soil were removed during re-excavation. The headspace soil reading from the excavation bottom was 69 ppm. Soil analytical was as follows; benzene - <0.025 mg/kg, total BTEX - 0.083 mg/kg, TPH (418.1) - 14.2 mg/kg.

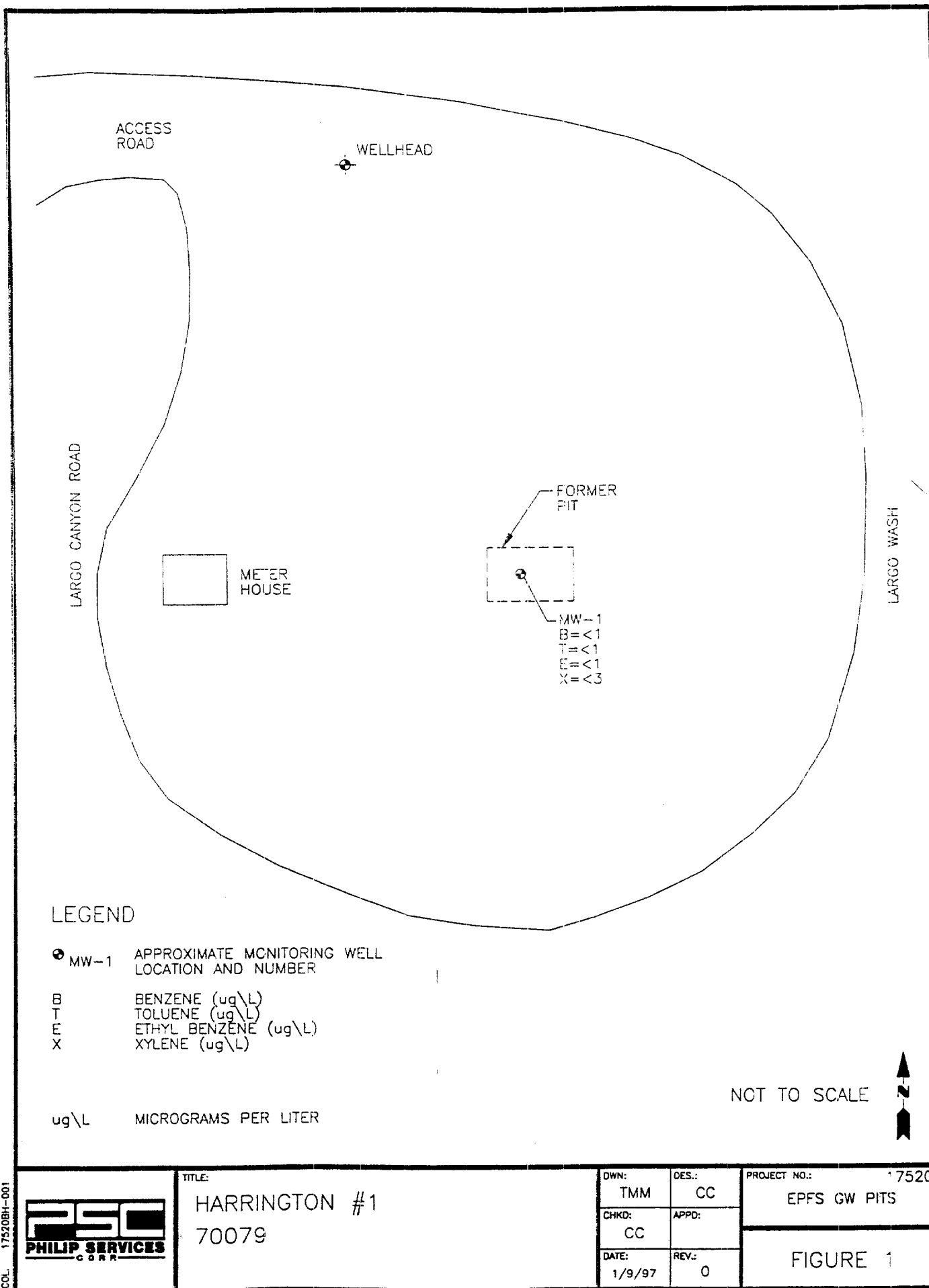
One soil boring was drilled in the center of the former pit. Groundwater was encountered at 12 feet bgs and a monitoring well was installed. No soil samples were collected from the pit. Quarterly groundwater monitoring was initiated on 6/9/97 and continued through 3/20/98. Groundwater analytical data are presented in Table 1. Groundwater analytical data collected prior to 1998 has been previously submitted in the 1997 Annual Report.

CONCLUSIONS

After re-excavation of the pit and the removal of an additional 640 cubic yards of impacted soil, soil samples collected from the excavation indicated soils below NMOCD standards. Groundwater samples collected from the center of the pit have been below NMWQCC standards since quarterly sampling was initiated. Minimal impact to groundwater has occurred at this site.

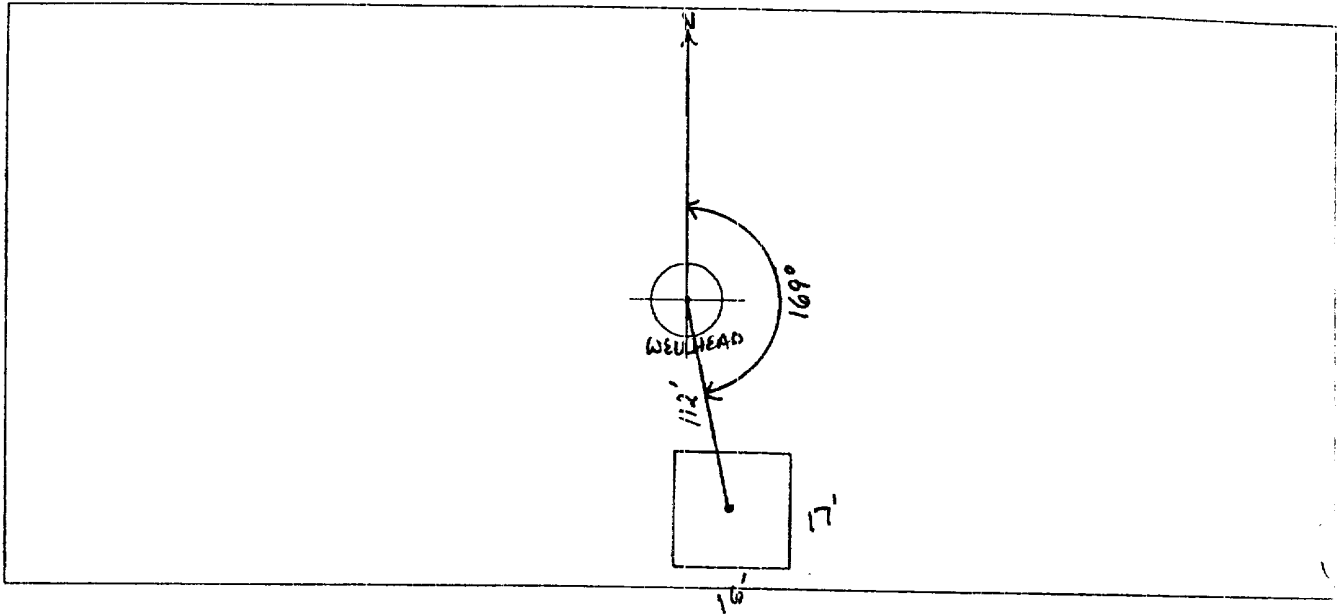
RECOMMENDATIONS

- EPFS request closure at this site.
- Following OCD approval for closure, MW-1 will be abandoned following OCD approved abandonment procedures.



ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 169° Footage from Wellhead 112'
b) Length : 17' Width : 16' Depth : 2'



REMARKS :

TOOK PICTURES AT 2:57 P.M.

END DUMP

Completed By:

Robert Thompson
Signature

6-14-94
Date

FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>70079</u> Location: <u>HARRINGTON #1</u> Operator #: <u>2999</u> Operator Name: <u>MERIDIAN P/L</u> District: <u>BALLARD</u> Coordinates: Letter: <u>M</u> Section <u>31</u> Township: <u>27</u> Range: <u>7</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____ Site Assessment Date: <u>6.14.94</u> Area: <u>07</u> Run: <u>51</u>								
SITE ASSESSMENT	NMOCD Zone: (From NMOCD Maps) Inside ☒ (1) Outside ☐ (2) Land Type: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">BLM</td><td style="width: 50%; text-align: right;">☒ (1)</td></tr> <tr> <td>State</td><td style="text-align: right;">☐ (2)</td></tr> <tr> <td>Fee</td><td style="text-align: right;">☐ (3)</td></tr> <tr> <td>Indian</td><td style="text-align: right;">_____</td></tr> </table> 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 <u>CAÑON LARGO</u> (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: <u>30</u> POINTS	BLM	☒ (1)	State	☐ (2)	Fee	☐ (3)	Indian	_____
BLM	☒ (1)								
State	☐ (2)								
Fee	☐ (3)								
Indian	_____								
REMARKS	Remarks : <u>ONLY PIT ON LOCATION. PIT IS DRY. LOCATION IS IN LARGO CANYON.</u> <u>REDLINE AND TOPO CONFIRMED LOCATION IS INSIDE V-Z.</u>								

DIG & HALL

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>70079</u> Location: <u>Harrington #1</u> Coordinates: Letter: <u>M</u> Section <u>31</u> Township: <u>27</u> Range: <u>7</u> Or Latitude _____ Longitude _____ Date Started : <u>7/29/94</u> Run: <u>07</u> <u>51</u>
FIELD OBSERVATIONS	Sample Number(s): <u>KD174</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>317 ppm</u> PID Reading Depth <u>12'</u> Feet Yes No Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet
CLOSURE	Remediation Method : Excavation ☒ Onsite Bioremediation ☐ Backfill Pit Without Excavation ☐ Approx. Cubic Yards <u>50</u> Soil Disposition: Envirotech ☒ Other Facility ☐ ☐ Tierra Name: _____ Pit Closure Date: <u>8/1/94</u> Pit Closed By: <u>BEI</u>
REMARKS	Remarks : <u>EXCAVATED pit to 12', took PID Sample.</u> <u>Will close pit on 8/1/94.</u>
	Signature of Specialist: <u>Kayden</u>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	50124	945792
MTR CODE SITE NAME:	70079	N/A
SAMPLE DATE TIME (Hrs):	7-29-94	1400
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	8-2-94	8/2/94
DATE OF BTEX EXT. ANAL.:	8/4/94	8/6/94
TYPE DESCRIPTION:	VC	Brown/Grey Sand/clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	20.25	MG/KG	10			
TOLUENE	+320.25	MG/KG	10			
ETHYL BENZENE	6.5 3.5	MG/KG	10			
TOTAL XYLENES	98.79	MG/KG	10			
TOTAL BTEX	118.83	MG/KG				
TPH (418.1)	2320	MG/KG			2.03	28
HEADSPACE PID	317	PPM				
PERCENT SOLIDS	88.9	%				

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

Surrogate Recovery was at 144% for this sample All QA/QC was acceptable.

AT I

AT I results attached. Surrogate recovery was outside AT I QC limits due to matrix interference.

F = Dilution Factor Used

Approved By:

J.S.

Date:

9/2/94



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 408313

August 12, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 08/03/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

8015 analysis was added on 08/08/94 for sample 945789 per John Lambdin.

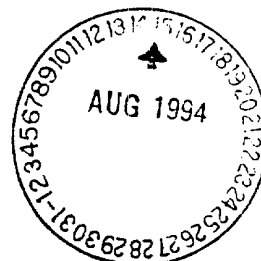
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.


Letitia Krakowski, Ph.D.
Project Manager


H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408313
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	945790	NON-AQ	07/29/94	08/04/94	08/05/94	10
08	945791	NON-AQ	07/29/94	08/04/94	08/06/94	10
09	945792	NON-AQ	07/29/94	08/04/94	08/06/94	10
PARAMETER			UNITS	07	08	09
BENZENE			MG/KG	2.1	<0.25	<0.25
TOLUENE			MG/KG	75	13	<0.25
ETHYLBENZENE			MG/KG	14	6.5	3.5
TOTAL XYLENES			MG/KG	160	98	79

SURROGATE:

BROMOFLUOROBENZENE (%) 131* 176* 144*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE



EL 150

CHAIN OF CUSTODY RECORD

Page _____ of _____

[illegible]

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

FIELD PIT REMEDIATION/CLOSURE FORM/PHASE II

Meter: 70079 Location: Harrington #1

Coordinates: Letter: M Section 31 Township: 27 Range: 07

Or Latitude _____ Longitude _____

Date Started : 8-8-95 Area: 07 Run: 51

Sample Number(s): 4P44 4P45 4P46 4P47

Sample Depth: 12 Feet

Final PID Reading 69 ppm PID Reading Depth 12 Feet
Yes No

Groundwater Encountered ☒ (1) ☐ (2) Approximate Depth 12 Feet

Final Dimensions: Length 60 Width 30 Depth 12

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 2624

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☐ (3)

Overburden Cubic Yards 20 or 7/27/95

Soil Disposition:

Envirotech ☒ (1) ☐ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 8-15-95 Pit Closed By: Philip Env

Phase III

Remarks : Ground water encountered at 12', Contamination
is approx 10' deep, approx 20" wide on North + East walls, South
all approx 4", West wall starting at 5' deep, approx 5'-6" Thick
could not dig west wall much more, due to position of Loc. Drip over

Signature of Specialist: James F. [Signature]

Sent to
Jal



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Water

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 947182
FIELD ID: JP 44
MTR CODE: 70079
SAMPLE DATE: 8/8/95
SAMPLE TYPE: EXCAVATION
SITE NAME: Harrington #1
PROJECT: Phase III EXCAVATION
DATE OF BTEX ANALYSIS: 8/11/95

FIELD COMMENTS: 2 Containers

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT	QUALIFIER	WQCC LIMIT PPB
TDS - TOTAL DISSOLVED SOLIDS (PPM)	N/A		None
BENZENE (PPB)	75.4	D(5)	10
TOLUENE (PPB)	202	D(5)	740
ETHYL BENZENE (PPB)	209	D(5)	750
TOTAL XYLENES (PPB)	246.4	D(5)	620
SURROGATE % RECOVERY	89.8	Allowed Range 80 to 120 %	

No Bubbles in VOA's.

Approved By:

John Lard

8/18/95



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	947199 JP 45	947199
MTR CODE SITE NAME:	70079	Harrington #1
SAMPLE DATE TIME (Hrs):	08/09/95	12:00
PROJECT:	Phase III Drilling	
DATE OF TPH EXT. ANAL.:	8/11/95	8/11/95
DATE OF BTEX EXT. ANAL.:	8/18/95	8/18/95
TYPE DESCRIPTION:	VC	Brown Sand & clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	20.025	MG/KG	1			
TOLUENE	0.026	MG/KG	1			
ETHYL BENZENE	20.025	MG/KG	1			
TOTAL XYLENES	0.057	MG/KG	1			
TOTAL BTEX	0.083	MG/KG				
TPH (418.1)	14.2	MG/KG			2.29	28
HEADSPACE PID	69	PPM				
PERCENT SOLIDS	83.1	%				

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

The Surrogate Recovery was at 88 for this sample All QA/QC was acceptable.

Narrative:

AT 1 Results attached.

DF = Dilution Factor Used

Approved By:

Date:

8/28/95



Natur. 50
Company

James E. Lauer
8/8/95
Execution

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER # 24324		PROJECT NAME Pit Closure Project		DATE: 8-8-95		TOTAL NUMBER OF CONTAINERS		SAMPLE TYPE		REQUESTED ANALYSIS				CONTRACT LABORATORY P. O. NUMBER	
SAMPLERS: (Signature)		SAMPLERS: (Signature)		DATE: 8-8-95		TOTAL NUMBER OF CONTAINERS		SAMPLE TYPE		REQUESTED ANALYSIS				CONTRACT LABORATORY P. O. NUMBER	
LAB ID	DATE	TIME	MATRIX	FIELD ID	DATE	TIME	MATRIX	FIELD ID	TPH EPA 418.1	BTEX EPA 8020	LAB PID	SEQUENCE #	REMARKS		
947182	8-8-95	1615	water	4P214	2	W	46	X	X	X		40	Harrington #1 70079		
[The following rows are crossed out with a diagonal line.]															
RELINQUISHED BY: (Signature) <i>James E. Lauer</i> DATE/TIME 8-8-95 1340 RECEIVED BY: (Signature) <i>Kelly Swall</i> DATE/TIME 8/9/95 10:35															
RELINQUISHED BY: (Signature) <i>James E. Lauer</i> DATE/TIME 8-8-95 1340 RECEIVED BY: (Signature) <i>Kelly Swall</i> DATE/TIME 8/9/95 10:35															
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH															
CARRIER CO.															
BILL NO.:															
SAMPLE RECEIPT REMARKS															
RESULTS & INVOICES TO:															
FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P.O. BOX 4990 FARMINGTON, NEW MEXICO 87499															
FAX: 505-599-2261															



50
Natura

Company

Phase III
Drilling

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER # 24324		PROJECT NAME Pit Closure Project		DATE 8-9-95		FIELD ID		TOTAL NUMBERS OF CONTAINERS		SAMPLE TYPE		REQUESTED ANALYSIS				CONTRACT LABORATORY P. O. NUMBER	
SAMPLERS: (Signature)		SAMPLERS: (Signature)		DATE		FIELD ID		TOTAL NUMBERS OF CONTAINERS		SAMPLE TYPE		REQUESTED ANALYSIS				CONTRACT LABORATORY P. O. NUMBER	
LAB ID	DATE	TIME	MATRIX	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBERS OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID	SEQUENCE #	REMARKS			
947199	8-9-95	1200	Soil				4P45	1	VC	X	X		41	Harrington #1	70079		
947200	8-9-95	1200	Soil				4P46	1	VC	X	X		42	"	"		
947201	8-9-95	1205	Soil				4P47	1	B	X	X		43	"	"		
[The following rows are crossed out with a large diagonal line.]																	
RELINQUISHED BY: (Signature) <i>James J. Lewis</i> DATE/TIME 8/9/95 12:00 RECEIVED BY: (Signature) <i>Kelly Swall</i> DATE/TIME 8/10/95 11:00																	
RELINQUISHED BY: (Signature) <i>James J. Lewis</i> DATE/TIME 8/9/95 12:00 RECEIVED BY: (Signature) <i>Kelly Swall</i> DATE/TIME 8/10/95 11:00																	
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH																	
CARRIER CO.																	
BILL NO.:																	
SAMPLE RECEIPT REMARKS																	
RESULTS & INVOICES TO:																	
FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499																	
FAX: 505-599-2261																	



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 508390

August 23, 1995

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE/PHASE II & III 24324

Attention: John Lambdin

On 08/16/95, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

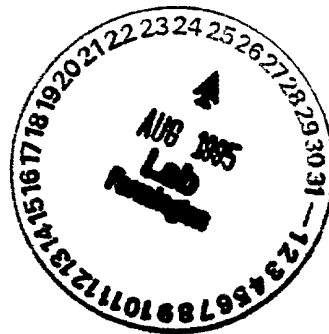
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
 CLIENT : EL PASO NATURAL GAS CO ATI I.D.: 508390
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE/PHASE II & III

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947198	NON-AQ	08/09/95	08/18/95	08/18/95	1
02	947199	NON-AQ	08/09/95	08/18/95	08/18/95	1
03	947200	NON-AQ	08/09/95	08/18/95	08/18/95	1
PARAMETER			UNITS	01	02	03
BENZENE			MG/KG	<0.025	<0.025	<0.025
TOLUENE			MG/KG	<0.025	0.026	<0.025
ETHYLBENZENE			MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES			MG/KG	<0.025	0.057	0.053
SURROGATE:						
BROMOFLUOROBENZENE (%)				88	88	93

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL SERVICES INC.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

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

Project Name EPFS GW PITS
Project Number 17520 Phase 6001.77
Project Location HARRINGTON #1 - 70079

Elevation _____
Borehole Location T27 R 7 - S31 - Ltr M
GWL Depth 12' BGS
Logged By D. CESARK
Drilled By M. DONAHUE
Date/Time Started 3/10/97 - 0915
Date/Time Completed 11 - 0945

Well Logged By D. CESARK
Personnel On-Site D. CHARLEY, S. ARCHULET.
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method 4 1/4" ID HSA
Air Monitoring Method PID, CGI

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			Drilling Conditions & Blow Counts
0				BACK FILL						
5				TO						
10				12'						
15				GW @ 12'						
20										
25				TD = 23'						
30										
35										
40										

NO SAMPLES COLLECTED

Comments:

GW EN COUNTERED @ 12' BGS, OVER-DRILLED TO 23' BGS SET WELL.
NO SAMPLES COLLECTED. PLEASE REFER TO WELL COMPLETION DIAGRAM.

Geologist Signature

[Signature]

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # 2

Well # 1

Page 1 of 1

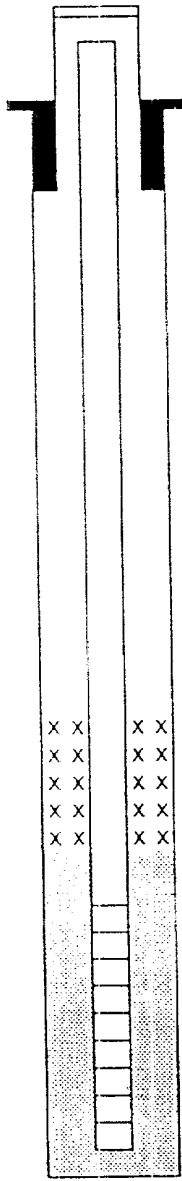
Project Name EPFS GWPITS
Project Number 17520 Phase 6002-77
Site Location HARRINGTON #1 - 270079

Elevation _____
Well Location T27N-R7W-S31-L1M1
GWL Depth 12' BGS
Installed By M DONOHUE

On-Site Geologist D CESARK
Personnel On-Site D CHARLEY, S ARCHULETA
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 3/10/97 - 0945
Date/Time Completed 11 - 1100

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	SCH 40 PVC	+3'
Bottom of Well Riser	"	-7'
Top of Well Screen	.010 SLOT	-7'
Bottom of Well Screen	"	-22'
Top of Peltonite Seal	ENVIROPLUG	-2'
Bottom of Peltonite Seal	"	-4'
Top of Gravel Pack	10-20 S.SAD	-4'
Bottom of Gravel Pack	"	-22'
Top of Natural Cave-In		-22'
Bottom of Natural Cave-In		-23'
Top of Groundwater		-12'
Total Depth of Borehole		-23'



Top of Protective Casing +3'

Top of Riser +3'

Ground Surface -0-

Top of Seal -2

Top of Gravel Pack -4'

Top of Screen -7'

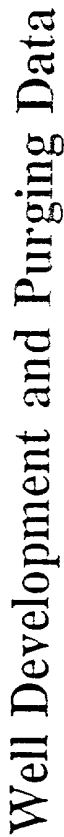
Bottom of Screen -22'

Bottom of Borehole -23'

Comments: _____

Geologist Signature

[Signature]

Page 1 of 1

Date 4/2/97

Date _____

Reviewer



Water Sampling Data

Location No. MW-1Serial No. WSD-Group List Number Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 4/2/97Project Name EPFS GW PITS Project No. 17520Project Manager C CHANCE Phase Task No. 6003.77Site Name HARRINGTON #1 - 70079

Sampling Specifications

Requested Sampling

Depth Interval (feet)

Requested Wait Following

Development/Purging (hours)

Initial Measurements

Time Elapsed From Final Development/Purging (hours) Initial Water Depth (feet) Nonaqueous Liquids Present (Describe)

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings				Water Collection Data					Notes (Explain in Comments Below)
			Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/ cm)	Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Sample Containers

Preservatives: H = HCl; N = HNO₃; S = H₂SO₄; A = NaOH; O = Other (Specify); -- = None

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
BTEX	DRC24	VV	40		X	Y	X		

Filter Type Chain-of-Custody Form Number Comments * PLEASE REFER TO WELL DEVELOPMENT + PURGING DATA FORMSignature [Signature] Date 4/2/97 Reviewer Date



EL PASO FIELD SERVICES



5-22-97

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC24	970240
MTR CODE SITE NAME:	70079	Harrington #1
SAMPLE DATE TIME (Hrs):	4/2/97	1125
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. ANAL.:	4/4/97	4/4/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

The Surrogate Recovery was at 101 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John L. Linder

Date:

4/8/97

970240,4/8/97



CHAIN OF CUSTODY RECORD

Sample #	Meter/ Line #	Site Name	Sample Date	Project	S1	Benzene (PPB)	S2	Toluene (PPB)	S3	Ethyl Benzene (PPB)	S4	Total Xylenes (PPB)	S7	Total BTEX PPB
970240 *	70079	Harrington #1	4/2/97	Phase II Drilling - Initial	<	1	<	1	<	1	<	3	<	6
970543 *	70079	Harrington #1	6/9/97	Sample 4 - 1st Qtr	<	1	<	1	<	1	<	3	<	6
970989 *	70079	Harrington #1	9/17/97	Sample 4 - 2nd Qtr	<	1	<	1	<	1	<	3	<	6
971276 *	70079	Harrington #1	12/8/97	Sample 4 - 3rd Qtr	<	1	<	1	<	1	<	3	<	6
980244	70079	Harrington #1	3/20/98	Sample 4 - 4th Qtr	<	1	<	1	<	1	<	3	<	6

* Analytical reports provided to NMOCD in prior annual report.

5 Mpls 4 4TH QTR

APU 4-3-9 2km
A 2624



APU 4-2-98 H2O
APU 4-2-98 P26

CHAIN OF CUSTODY RECORD

Project No.		Project Name		Requested Analysis		Remarks									
Samplers: (Signature)		Date: 3-20-98		Type and No. of Sample Containers		Preservation Technique									
Date	Time	Comp.	GRAB	Sample Number											
WATER 3-20-98	1050		X	980244	5-1 400	X	HARRINGTON #1 MW-1								
WATER 3-20-98			X		5-1 400	X	TRIP BLANK								
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time									
Dennis Bied		3-20-98 1623													
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time									
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Remarks:									
				M. J. Hopper		3/23/98 0710									
Carrier Co:				Carrier Phone No		Date Results Reported / by: (Signature)									
Air Bill No.:															



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980244
MTR CODE SITE NAME:	70079	Harrington #1
SAMPLE DATE TIME (Hrs):	3/20/98	1050
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. ANAL.:	3/23/98	3/23/98
TYPE DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	< 6	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 99.7 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John L. Linder

Date: _____

3/25/98

980244-BTEXMW, 3/25/98



Well Number MW-1
Meter Code 70079

Site Name HARRINGTON #1

Development Criteria

- | | |
|-------------------------------------|--|
| ☒ | 3 to 5 Casing Volumes of Water Removal |
| ☐ | Stabilization of Indicator Parameters |
| ☐ | Other |

Methods of Development

- | | | | |
|--------------------------|-------------|-------------------------------------|--------------------------|
| ☐ | Pump | ☐ | Bailer |
| ☐ | Centrifugal | ☒ | Bottom Valve |
| ☐ | Submersible | ☐ | Double Check Valve |
| ☐ | Peristaltic | ☐ | Stainless-steel Kemmerer |
| ☐ | Other | | |

Water Volume Calculation

Initial Depth of Well (feet) 2450
Initial Depth to Water (feet) 1183
Height of Water Column in Well (feet) 1265

Diameter (inches): Well 4 Gravel Pack

☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Water Disposal

KUTZ SEPARATOR

Item	Water Volume in Well			Gallons to be Removed
	Cubic Feet	Gallons		
Well Casing		8.4		25.1
Gravel Pack				
Drilling Fluids				
Total				

Water Removal Data

[illegible]

Comments

Comments _____

Developer's Signature *Gennia Bird* Date 3-20-98

Reviewer *John Funder* Date 3/25/98