EPFS GROUNDWATER PITS
1998 CLOSURE REPORT

DEPUTY OIL & GAS INSPECTOR

AUG 16 1999

Approved

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

DE NA HAZ ZA #1
Meter/Line ID - 74439

SITE DETAILS

Legals - Twn: 26N **Rng:** 8W **Sec:** 18 **Unit:** D
NMOCD Hazard Ranking: 40 **Land Type:** NAVAJO
Operator: BURLINGTON RESOURCES

PREVIOUS ACTIVITIES

Site Assessment: Jun-94 **Excavation:** Aug-94 (40 cy) **Soil Boring:** Feb-97
Re-Excavation: Mar-97 (226 cy) **Monitor Well:** May-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 40 cubic yards of impacted soil were removed during excavation. The headspace soil reading from the excavation bottom was 225 ppm. Soil analytical was as follows; benzene - <0.25 mg/kg, total BTEX – 3.0 mg/kg, and TPH (418.1) 390 mg/kg.

The pit was re-excavated to 18 feet bgs where groundwater was encountered. One composite soil sample was collected from the excavation. Approximately 226 additional cubic yards of contaminated soil were removed from the excavation. The final headspace reading from the excavation bottom was 63 ppm. Soil analytical was as follows; benzene – <0.25 mg/kg, total BTEX – 3.0 mg/kg, and TPH (418.1) ND mg/kg.

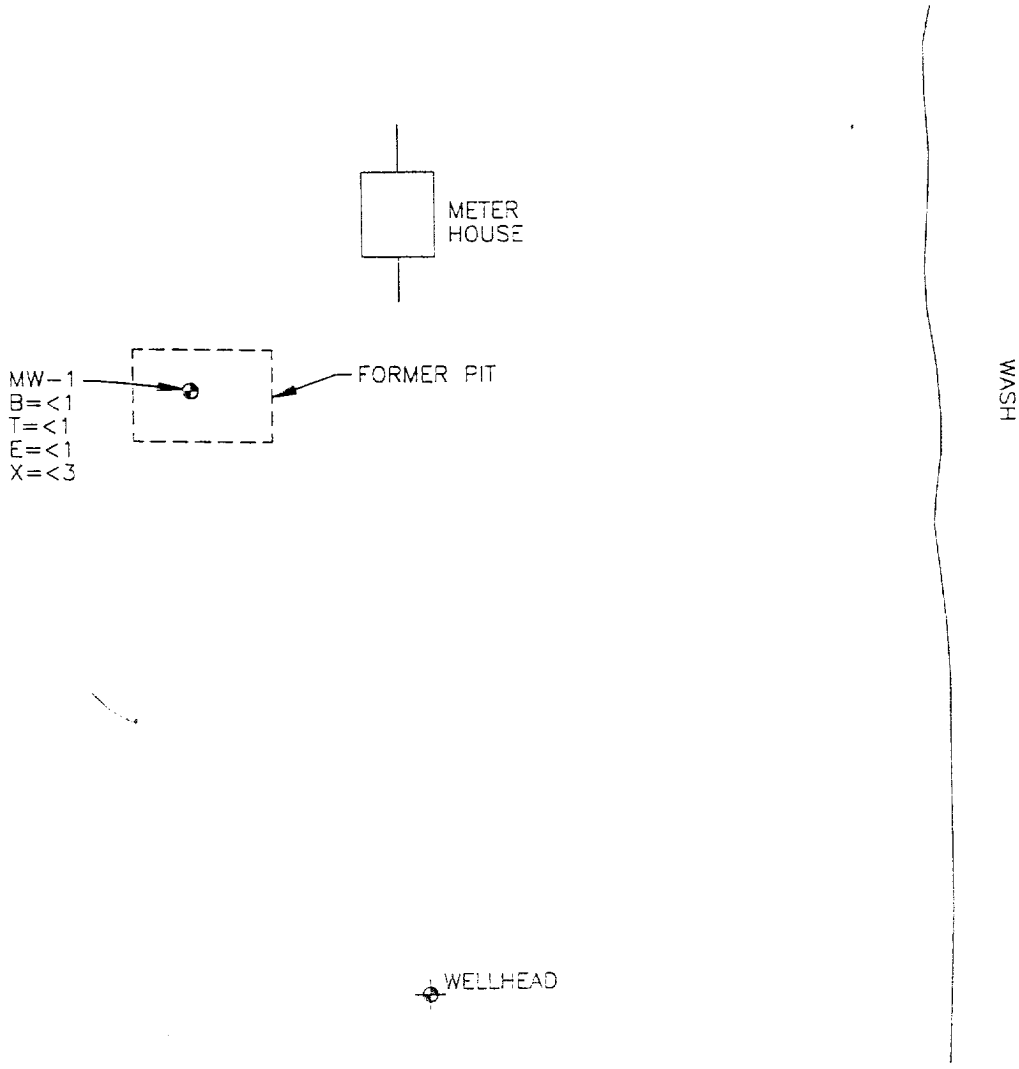
One soil boring was drilled in the center of the former pit and a monitoring well was installed. No soil sample was collected. Quarterly groundwater monitoring was initiated on 5/22/97 and continued through 3/26/98. Groundwater analytical data are presented in Table 1. Groundwater analytical data prior to 1998 has been previously submitted in the 1997 Annual Report, along with well logs and well diagrams.

CONCLUSIONS

Groundwater analytical data has been below standards for 4 consecutive quarters since quarterly sampling was initiated indicating minimal impact to groundwater.

RECOMMENDATIONS

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



LEGEND

⊕ MW-1	APPROXIMATE MONITORING WELL LOCATION AND NUMBER
B	BENZENE (ug\L)
T	TOLUNE (ug\L)
E	ETHYL BENZENE (ug\L)
X	XYLENE (ug\L)
ug\L	MICROGRAMS PER LITER

NOT TO SCALE

PHILIP SERVICES CORP

TITLE:

DE-NA-HAZ-ZA #1

74439

DWN:	DES.:	PROJECT NO.: 17520
TMM	CC	EPFS GW PITTS
CHKD:	APPD:	
CC		
DATE:	REV.:	FIGURE 1
12/8/97	0	

COL. 17520AN-001

FIELD PIT SITE ASSESSMENT FORM

3

GENERAL

Meter: 74439 Location: De-Na-Haz-Za No. 1
Operator #: 2999 Operator Name: Meridian P/L District: Ballard
Coordinates: Letter: D Section 18 Township: 26N Range: 8W
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 6-23-94 Area: 11 Run: 91

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)
Inside ☒ (1)
Outside ☐ (2)

Land Type:
BLM ☐ (1)
State ☐ (2)
Fee ☐ (3)
Indian Eastern Navajo Agency

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 Blanco Wash
(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: 40 **POINTS**

REMARKS

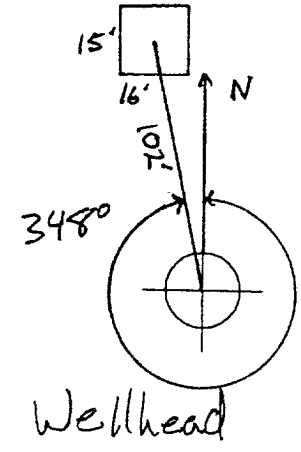
Remarks : one pit. Dry
Inside V.Z. on Redline & Topo

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 348° Footage from Wellhead 102

b) Length : 16 · Width : 15 Depth : 3



REMARKS

Remarks :

Photos- 0946

End dump

Completed By:

Signature

6-23-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 74439 Location: De-Na-Haz-Za #1

Coordinates: Letter: D Section 18 Township: 26N Range: 8W

Or Latitude _____ Longitude _____

Date Started : 8/8/94 Run: 11 91

FIELD OBSERVATIONS

Sample Number(s): KD 196 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 225 ppm PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒	Approx. Cubic Yards 40
Onsite Bioremediation	☐	
Backfill Pit Without Excavation	☐	

Soil Disposition:

Envirotech	☒	☐	Tierra
Other Facility	☐	Name:	_____

Pit Closure Date: 8/8/94 Pit Closed By: BET

REMARKS

Remarks : Excavated pit to 12', took PID sample, closed pit.

Signature of Specialist: _____

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD196	945866
MTR CODE | SITE NAME:	72439	N/A
SAMPLE DATE | TIME (Hrs):	8-8-94	1510
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	8-9-94	8-9-94
DATE OF BTEX EXT. | ANAL.:	8/11/94	8/12/94
TYPE | DESCRIPTION:	VC	Brown/grey sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.25	MG/KG	10			
TOLUENE	<0.25	MG/KG	10			
ETHYL BENZENE	<0.25	MG/KG	10			
TOTAL XYLENES	2.2	MG/KG	10			
TOTAL BTEX	3.0	MG/KG				
TPH (418.1)	390	MG/KG			2.17	28
HEADSPACE PID	225	PPM				
PERCENT SOLIDS	90.4	%				

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

ıgate Recovery was at 109 % for this sample All QA/QC was acceptable.

rrative:
ATI results attached.

= Dilution Factor Used

roved By: NP Date: 9/30/94

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS						CONTRACT LABORATORY P. O. NUMBER
	Pit Closure Project # 24324			TPH EPA 418.1	BTEX EPA 8020					
SAMPLERS: (Signature) Kurt Dorn	DATE: 8/8/94									
LAB ID / DATE / TIME / MATRIX / SAMPLE NUMBER										REMARKS
8/8/94 0905	soil KD 194	1	VG	X	X				176	
8/8/94 1140	soil KD 195	1	VC	X	X				177	
8/8/94 1510	soil KD 196	1	VC	X	X				178	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Kurt Dorn	8/8/94 1705			8/9/94 0850	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH _____

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

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

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

FM-08 0565A (Rev. 03-94)

Analytical Technologies, Inc.

ATI I.D. 408339

August 31, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **08/10/94**, 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.

This report is being reissued in part to correct the sample I.D. for 408339-18 on the results page.

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

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408339

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
16	945864	NON-AQ	08/08/94	08/11/94	08/12/94	1
17	945865	NON-AQ	08/08/94	08/11/94	08/12/94	1
18	945866	NON-AQ	08/08/94	08/11/94	08/12/94	10

PARAMETER	UNITS	16	17	18
BENZENE	MG/KG	<0.025	<0.025	<0.25
TOLUENE	MG/KG	0.028	0.20	<0.25
ETHYLBENZENE	MG/KG	<0.025	0.78	<0.25
TOTAL XYLENES	MG/KG	0.043	9.8	2.2
SURROGATE:				
BROMOFLUOROBENZENE (%)		84	89	109

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 1

PHILIP ENVIRONMENTAL SERVICES INC.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPFS GW PITS
Project Number 17520 Phase 6001.77
Project Location DE-NA-HAZ-ZA #1 — 74439

Elevation
Borehole Location T26 R8 - S18 - Ltr D
GWL Depth 14'
Logged By D CESARK
Drilled By M DONOHUE
Date/Time Started 2/20/97 - 1300
Date/Time Completed " - 1400

Well Logged By D CESARK
Personnel On-Site D CHARLEY
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				BACKFILL TO 12'					HS	
5										
10										
15	1	13'-15'	18"	SILTY-SAND TO CLAYEY SAND. STRONG HC STAIN (OLIVE GRAY) + ODOR. TD = 15'	SM/SC				147/698	1330
20										
25										
30										
35										
40										

Comments: TD=15', HIGHLY CONTAMINATED SOIL FROM 13'-15', SO NO SAMPLE WAS SUBMITTED TO LAB; GW ENCOUNTERED @ 14' BGS. SINCE <20', NO WELL WAS COMPLETED. BORING GROUTED TO SURFACE.

Geologist Signature

FIELD PIT REMEDIATION/CLOSURE FORM/PHASE II

GENERAL

Meter: 74439 Location: DE-NA-HA2-2A #1

Coordinates: Letter: D Section 18 Township: 26 Range: 8

Or Latitude _____ Longitude _____

Date Started : 3-27-97 Area: 11 Run: 91

FIELD OBSERVATIONS

Sample Number(s): MK584 _____ _____ _____

Sample Depth: 18' Feet

Final PID Reading 63PPM PID Reading Depth 18' Feet

	Yes	No
Groundwater Encountered	[X] (1)	[ ] (2)

Approximate Depth 18 Feet

Final Dimensions: Length 35 Width 25 Depth 18

CLOSURE

Remediation Method :

Excavation	[X] (1)	Approx. Cubic Yards 226
Onsite Bioremediation	[ ] (2)	
Backfill Pit Without Excavation	[ ] (3)	

Overburden Cubic Yards 342 Yd

Soil Disposition:

Envirotech	[X] (1)	[ ] (3)	Tierra
Other Facility	[ ] (2)	Name:	_____

Pit Closure Date: 3-28-97 Pit Closed By: Philip Environmental

REMARKS

Remarks : arrived started diggins overburden hit contaminated soil at 12' Dug to 18' Hit water pit appeared to be clean at water level Final pid Reading were N-wall 68PPM S-wall 37 PPM E-wall 0PPM W-wall 0PPM Bottom 0PPM Very wet Sample didn't use and Hydrogen Peroxide Because wall Kept caving IN Not very much water in pit

Signature of Specialist: Morgan Killion

EL PASO FIELD SERVICES

4-15-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	MK584	970229
MTR CODE | SITE NAME:	74439	DE-NA-HAZ-28 #1 4-15-97
SAMPLE DATE | TIME (Hrs):	3/27/97	1330
PROJECT:	PHASE III - Excavation	
DATE OF TPH EXT. | ANAL.:	3/31/97	3/31/97
DATE OF BTEX EXT. | ANAL.:	4/7/97	4/7/97
TYPE | DESCRIPTION:	VC	Brown sand w/clay

Field Remarks: _____

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 (418.1)	<10	MG/KG			2.26	28
HEADSPACE PID	63	PPM				
PERCENT SOLIDS	90.0	%				

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

The Surrogate Recovery was at 99.4 for this sample All QA/QC was acceptable.

Narrative: _____

DF = Dilution Factor Used

Approved By: _____ INGVZPIT.XLS Date: 4/9/97

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (Signature) Morgan Killion DATE: 3-27-97

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS: TPH EPA 418.1	BTEX EPA 8020	LAB PID			SEQUENCE #	REMARKS
970229	3-27-97	1330	Soil	NK MK584	1	VC	X	X				68	De-Ng-Hgz-29 #1 74439

CONTRACT LABORATORY P. O. NUMBER

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Morgan Killion 3-27-97	34 18:15		[signature]	4-1-97 1200	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
				4-1-97 1200	Marla Armenta

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

505-599-2144 FAX 599-2261

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

RECORD OF SUBSURFACE EXPLORATION

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

PHILIP ENVIRONMENTAL SERVICES INC.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPFS GW PITS
Project Number 17520 Phase 6001
Project Location De-Na-Haz-Za #1 74409

Elevation
Borehole Location T26-R8-S18-Ltr D
GWL Depth 12.8' BGS
Logged By CM CHANCE
Drilled By K Padilla
Date/Time Started 5/6/97 - 1055
Date/Time Completed 5/6/97 - 1200

Well Logged By CM CHANCE
Personnel On-Site D CHARLEY
Contractors On-Site
Client Personnel On-Site

Drilling Method 6 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	Drilling Conditions & Blow Counts
0										
5										
10										GW 12.8'
15				Backfill to 18'						
20				Gry clayey SAND, vF-F sand saturated						
25										
30										
35										
40										

Comments: No sample collected. Backfill to 18'. GW @ ~14'. GW rose to 12.8' after 20 min.

Geologist Signature Cory Chance

MONITORING WELL INSTALLATION RECORD

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

Philip Environmental Services, Inc.
4000 Monroe Rd.
Farmington, NM 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPFS GW
Project Number 17520 Phase 6002
Site Location De Na Haz Za #1 74439

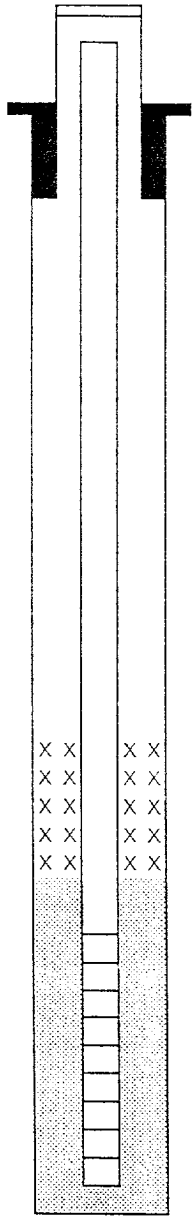
Elevation
Well Location T26S 18 R 8 LTRO
GWL Depth 12.8' BGS
Installed By K Padilla

On-Site Geologist CM CHANCE
Personnel On-Site D CHARLEY
Contractors On-Site
Client Personnel On-Site

Date/Time Started 5/6/97 - 1200
Date/Time Completed 5/6/97 - 1330

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing	8" steel well vault	+3.1'
Bottom of Protective Casing		1.9
Top of Permanent Borehole Casing		N/A
Bottom of Permanent Borehole Casing		N/A
Top of Concrete		NA
Bottom of Concrete		NA
Top of Grout	Type I/II Portland cement	NA
Bottom of Grout	Powder Bentonite	NA
Top of Well Riser	4" SCH 40 PVC	+3'
Bottom of Well Riser	FLUSH THREAD	7'
Top of Well Screen	4" SCH 40 PVC	7'
Bottom of Well Screen	0.01 SLOT FLUSH THREAD	22'
Top of Peltonite Seal	ENVIROPLUG	0'
Bottom of Peltonite Seal		4'
Top of Gravel Pack	10-20 SILICA SAND	4'
Bottom of Gravel Pack		22'
Top of Natural Cave-In		22'
Bottom of Natural Cave-In		23'
Top of Groundwater		12.8'
Total Depth of Borehole		23'



Top of Protective Casing +3.1'
Top of Riser +3'
Ground Surface 0'
Top of Seal 2 0'
Top of Gravel Pack 4 4'
Top of Screen 7 7'
Bottom of Screen 22 22'
Bottom of Borehole 23 23'

Comments: Seal hydrated w/ 10 gal potable water. Locking well cap & padlock placed on well

Geologist Signature Cory Chance

MWINSTAL.wk1

PHILIP ENVIRONMENTAL

Well Number MW1

Serial No WDPD:

☒ Development ☐ Purging

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1

Project Name EPFS GW Pits

Project Manager Cory Chance

Project No. 17520

Client Company El Paso Field Services

Phase.Task No. 6003.77

Site Name DE-NA-HAZ-2A #1 74409

Site Address SAN JUAN CO., NM

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) 25.57 ToR

Initial Depth to Water (feet) 16.21 ToR

Height of Water Column in Well (feet) 9.36

Diameter (inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	9.36	6.11	30.55
Gravel Pack			
Drilling Fluids			
Total			30.55

Instruments

	Serial No. (if applicable)
☒ pH Meter	oyster
☐ DO Monitor	
☒ Conductivity Meter	oyster
☒ Temperature Meter	oyster
☐ Other	

Water Disposal

ON Ground ON Site

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	Comments
5-22-97	1205		X				5	5			15.3	8.38	810		Brown
5-22-97	1210		X				5	10			14.7	8.53	720		Brown
5-22-97	1218		X				5	15			14.6	8.60	730		Light Brown
5-22-97	12.26		X				5	20			14.8	8.59	730		Light Brown
5-22-97	12.33		X				5	25			14.2	8.60	720		Light Brown
5-22-97	1240		X				5	30			14.3	8.62	760		Light Brown
5-22-97	1247		X				5	35			14.3	8.69	690		Light Brown

Circle the date and time that the development criteria are met

Comments

Developer's Signature(s) Robert Champion Date 5-22-97 Reviewer Date

PHILIP ENVIRONMENTAL

Location No. MW-1

Serial No. WSD-

WATER SAMPLING DATA

Group List Number _____

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 5-22-97

Project Name EPFS GW Pits Project No. 17520

Project Manager Cory Chance Phase.Task No. 6003.77

Site Name DE-NA-HAZ-7A #1

Sampling Specifications

Requested Sampling Depth Interval (feet) TOP 3'

Requested Wait Following Development/Purging (hours) NONE

Initial Measurements

Time Elapsed From Final Development/Purging (hours) 11 MIN

Initial Water Depth (feet) 9.36

Nonaqueous Liquids Present (Describe) NONE

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings				Water Collection Data					Notes (Explain in Comment Below)
			Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (ft)	Bail	Final Water Depth ft)	
	See Well Development AND Purging DATA sheet											

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

Sample Containers

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; 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	2	V	40		X	H	X		SAMPLED AT 1258

Filter Type NONE Chain-of-Custody Form Number EPFS

Comments _____

Signature Robert Thompson Date 5-22-97 Reviewer _____ Date _____

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	RT5	970485
MTR CODE | SITE NAME:	74439	DE-NA-HAZ-ZA #1
SAMPLE DATE | TIME (Hrs):	5/22/97	1258
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. | ANAL.:	5/27/97	5/27/97
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	6.94	PPB				
TOTAL BTEX	6.94	PPB				

The Surrogate Recovery was at 97.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By: John Gordon Date: 5/27/97

EL PASO Natural Gas Company

CHAIN OF CUSTODY RECORD

Page ____ of ____

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (*Signature*) Mark Harrison DATE: 5-23-91

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	LAB PID			SEQUENCE #	REMARKS
	5-22-91	1035	H2O	BT 1	2								Chain of Custody #1 - 75155
	5-22-91	1258	H2O	BT 5	2								BTEX - MR - NA2 - 7A #1 - 74439
	5-22-91			TRIP BLANK	1								
	5-22-91	1515	H2O	BT 6	2								Chain of Custody #3 - 72890

RELINQUISHED BY: (*Signature*)	DATE/TIME	RECEIVED BY: (*Signature*)	RELINQUISHED BY: (*Signature*)	DATE/TIME	RECEIVED BY: (*Signature*)
Mark Harrison	5-22-91 1710				
RELINQUISHED BY: (*Signature*)	DATE/TIME	RECEIVED BY: (*Signature*)	RELINQUISHED BY: (*Signature*)	DATE/TIME	RECEIVED OF LABORATORY BY: (*Signature*)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499

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

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

FM 08 0565 A (Rev. 05-94)

Monitor

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
970485 *	74439	DE-NA-HAZ-ZA #1	5/22/97	Phase II Drilling - Initial	<	1	<	1	<	1	=	6.94	=	7
970605 *	74439	DE-NA-HAZ-ZA #1	6/26/97	Sample 4 - 1st Qtr	<	1	<	1	<	1	<	3	<	6
970978 *	74439	DE-NA-HAZ-ZA #1	9/12/97	Sample 4 - 2nd Qtr	<	1	<	1	<	1	<	3	<	6
971271 *	74439	DE-NA-HAZ-ZA #1	12/4/97	Sample 4 - 3rd Qtr	<	1	<	1	<	1	<	3	<	6
980256	74439	DE-NA-HAZ-ZA #1	3/26/98	Sample 4 - 4th Qtr	<	1	<	1	<	1	<	3	<	6

* Analytical reports provided to NMOCD in prior annual report.

ELE SO
FIE SERVICES

Well Development and Purging Data

☐ Development
☒ Purging

Well Number MW-1

Site Name DE-NA-HA2-2A #1

Meter Code 74439

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ Stabilization of Indicator Parameters
☐ Other_____

Water Volume Calculation

Initial Depth of Well (feet) 25.30
Initial Depth to Water (feet) 15.84
Height of Water Column in Well (feet) 9.46
Diameter (inches): Well 4 Gravel Pack_____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		6.3	18.8
Gravel Pack			
Drilling Fluids			
Total			

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other D.O. CHEMETS KIT

Methods of Development

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

☐ Other_____

Water Disposal

KUTZ SEPARATOR

Water Removal Data

Date	Time	Development Method		Removal Rate	Intake Depth	Ending Water Depth	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative					
3-26-98	0950										14.3	6.96	1024		
3-26-98	0955						5.0	5.0			13.4	6.96	1063		
3-26-98	1003						5.0	10.0			13.3	7.19	1016		
3-26-98	1010						5.0	15.0			13.3	7.42	1029		
3-26-98	1018						5.0	20.0			13.5	7.55	1034	1.5	

Comments_____

Developer's Signature Dennis Bird Date 3-26-98 Reviewer [signature] Date 4/3/98

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980256
MTR CODE | SITE NAME:	74439	DE-NA-HAZ-ZA #1
SAMPLE DATE | TIME (Hrs):	3/26/98	1035
PROJECT:	Sample 4 4th Quarter	
DATE OF BTEX EXT. | ANAL.:	3/27/98	3/27/98
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 98.5 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Narrative:

Approved By: _____ Date: 4/3/98

S. JUPLE 4 4TH QTR

EL PASO Natural Gas Company

4-30-98 Hall
4-30-98 Seal
4-22-98 Chem.

A 2631

CHAIN OF CUSTODY RECORD

Project No.	Project Name	Type and No. of Sample Containers	Preservation Technique	Requested Analysis			Remarks
	MC # 74437			BTXE			
Samplers: (Signature) Dennis Bird	Date: 3-26-98						

MATRIX	Date	Time	Comp.	GRAB	Sample Number							
WATER	3-26-98	1035		X	980256	G-1	4°C	X				DE-NA-HAZ-2A #1 MW-1
WATER	3-26-98	—		X	—	G-1	4°C	X				TRIP BLANK

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Dennis Bird	3-26-98 1728				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks:	
		Marilyn Klopper	3/27/98 0900		
Carrier Co:		Carrier Phone No.		Date Results Reported / by: (Signature)	
Air Bill No.:					