

EPFS GROUNDWATER PITS 1998 CLOSURE REPORT

DEPUTY OIL & GAS INSPECTOR

AUG 16 1999

JOHNSON #1E
Meter/Line ID - 93357

Legals - Twn: 31N Rng: 13W
NMOCD Hazard Ranking: 20
Operator: P-R-O MANAGEMENT

SITE DETAILS

Sec: 21 Unit: P
Land Type: FEE

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

PREVIOUS ACTIVITIES

Site Assessment: Mar-94 Excavation: May-94 (20 cy) Geoprobe: Nov-96
Soil Boring: Mar-97 Monitor Well: Mar-97

The pit was excavated to 5 feet beneath ground surface (bgs) where groundwater was encountered. A composite soil sample was collected from the pit bottom and four walls. The headspace soil reading from the excavation bottom was 194 ppm. Soil analytical was as follows: benzene - <0.12 mg/kg, total BTEX - 10.2 mg/kg, TPH (418.1) - 610 mg/kg.

Groundwater samples were collected from geoprobe holes in November of 1996. Laboratory analysis of the groundwater collected during the geoprobe sampling event showed all geoprobe samples, up-gradient and down-gradient of the former pit, were below New Mexico Water Quality Control Commission standards.

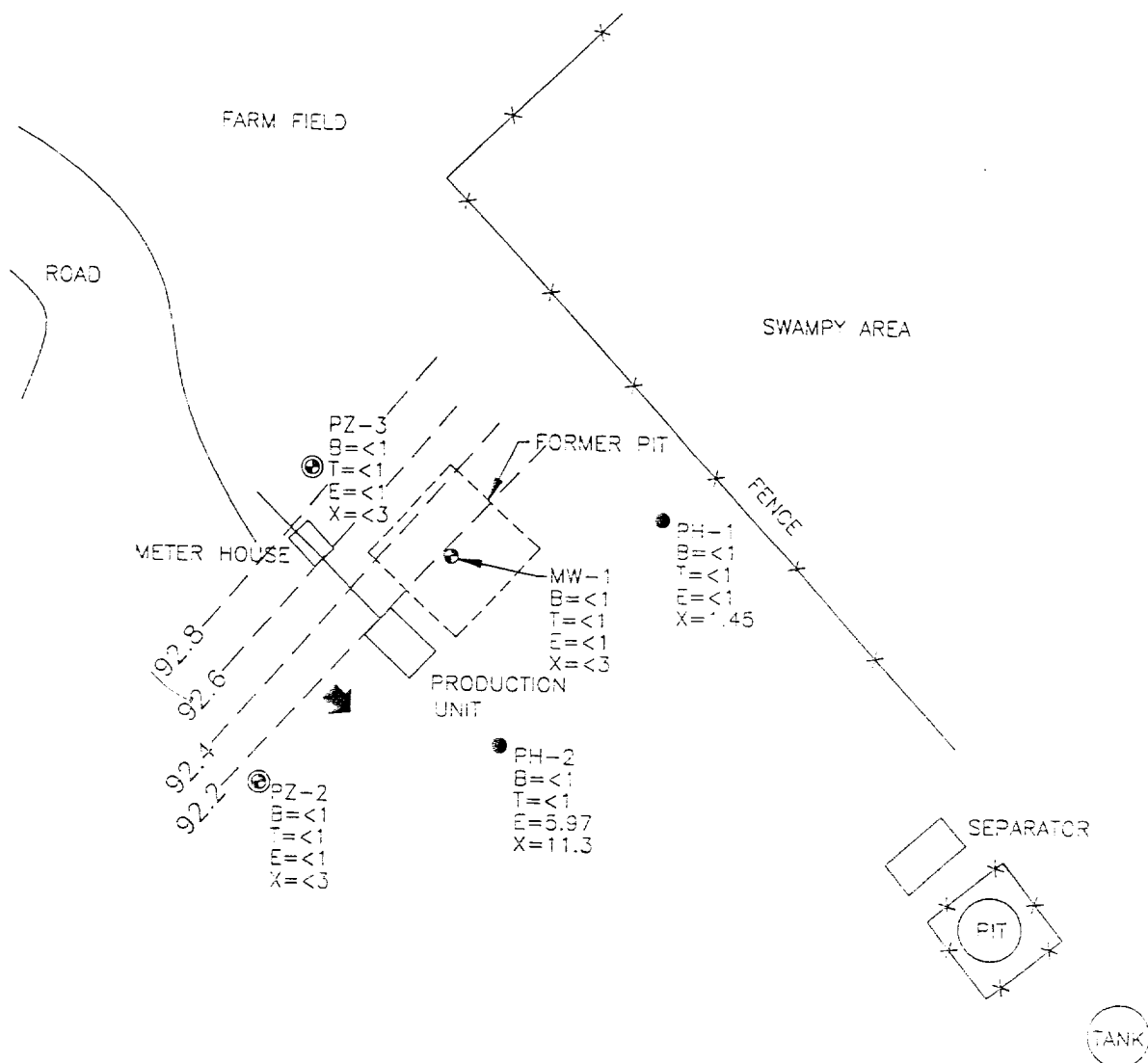
One soil boring was drilled in the center of the former pit. Groundwater was encountered at 5 feet bgs and a monitoring well was installed. No soil samples were collected. Quarterly groundwater monitoring was initiated on 3/28/97 and continued through 3/23/98. Groundwater analytical data are presented in Table 1. Groundwater analytical data prior to 1998 has been previously submitted in the 1997 Annual Report.

CONCLUSIONS

Initial groundwater sampling after monitoring well installation indicated benzene to be slightly above standards at 15.3 ppb. Subsequent quarterly sampling events has shown all BTEX compounds to be below laboratory detection limits, indicating minimal impact to groundwater. Geoprobe groundwater sampling from around the outside of the pit also indicated minimal impact to groundwater.

RECOMENDATIONS

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



LEGEND

- ⊙ PZ-1 APPROXIMATE PIEZOMETER LOCATION AND NUMBER
- PH-1 APPROXIMATE PROBEHOLE LOCATION AND NUMBER
- ⊙ MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER
- B BENZENE (ug\L)
- T TOLUENE (ug\L)
- E ETHYL BENZENE (ug\L)
- X XYLENE (ug\L)
- ug\L MICROGRAMS PER LITER
- 92.2 GROUNDWATER POTENTIOMETRIC SURFACE
- ➔ APPROXIMATE GROUNDWATER GRADIENT
- ⊕ WELLHEAD

0 30
FEET



COL. 17520Y-002



TITLE:

JOHNSON #1 E
93357

DWN:

TMM

DES.:

CC

PROJECT NO.:

17520

CHKD:

CC

APPD:

DATE:

1/20/98

REV.:

0

EPFS GW PITS

FIGURE 1

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 93357 Location: JOHNSON #1E
 Operator #: 7272 Operator Name: PRO MANAG P/L District: KUTZ
 Coordinates: Letter: P Section 21 Township: 31 Range: 13
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____
 Site Visit Date: 3-28-94 Run: 02 42

SITE ASSESSMENT

NMOCD Zone: Inside _____ Land Type: BLM ☐
 (From NMOCD Vulnerable _____ State ☐
 Maps) Zone ☒ Fee ☒
 Outside ☐ Indian _____

Depth to Groundwater

Less Than 50 Feet (20 points) ☐

50 Ft to 99 Ft (10 points) ☐

Greater Than 100 Ft (0 points) ☒

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? ☐ YES (20 points) ☒ 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) ☒

Name of Surface Water Body _____

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

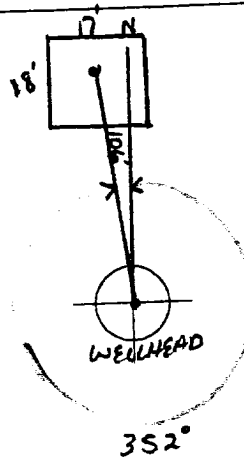
TOTAL HAZARD RANKING SCORE: 0 POINTS

REMARKS

Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. DENY HAS NOT BEEN DISCONNECTED FROM PIT YET. PIT IS ADR.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 352° Footage to Wellhead 106'
 b) Degrees from North _____ Footage to Dogleg _____
 Dogleg Name _____
 c) Length : 18' : Width : 17' Depth : 4'



REMARKS :

STARTED TAKING PICTURES AT 12:16 P.M.
DUMP TRUCK - BOBTAIL

Completed By:

Robert Thompson
 Signature

3.28.94
 Date

FIELD T REMEDIATION/CLOSURE FORM

GENERAL

Meter: 93357 Location: JOHNSON # 1E

Coordinates: Letter: Section Township: Range:

Or Latitude Longitude

Date Started : 5-3-94 Area: 02 Run: 42

FIELD OBSERVATIONS

Sample Number(s): 945069 K.P 14

Sample Depth: 5' Feet

Final PID Reading 194 PID Reading Depth 5' Feet

Yes No

Groundwater Encountered ☒ (1) ☐ (2) Approximate Depth 5' Feet

CLOSURE

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 20

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☐ (3)

Soil Disposition:

Envirotech ☐ (1) ☒ (3) Tierra

Other Facility ☐ (2) Name:

Pit Closure Date: 5-3-94

Pit Closed By: B.E.T

REMARKS

Remarks : No Line markers STARTED Remediation TO 12'
HIT Ground water AT 5' Soil is BLACK. CALLED Mike TO get A Hold
of RICK, could not get A Hold of RICK. move on to other LOCATION. Put Fence UP.
Till RICK OKays it. PID 194. Soil Black, Rocky DENNY FOUST OKays TO Close Pit.

Signature of Specialist: Kelly Padella



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP14	945064
MTR CODE SITE NAME:	93357	N/A
SAMPLE DATE TIME (Hrs):	5/3/94	0900
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	5/5/94	5/5/94
DATE OF BTEX EXT. ANAL.:	5/9/94	5/13/94
TYPE DESCRIPTION:	VC	Black wet - grey sandier gravel
REMARKS:	Ref. Water 945067	

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.12	MG/KG	5			
TOLUENE	40.12	MG/KG	5			
ETHYL BENZENE	0.86	MG/KG	5			
TOTAL XYLENES	9.1	MG/KG	5			
TOTAL BTEX	10.2	MG/KG				
TPH (418.1)	610	MG/KG			1.52	28
HEADSPACE PID	194	PPM				
PERCENT SOLIDS	88.2	%				

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

The Surrogate Recovery was at 73 % for this sample All QA/QC was acceptable.

ATI Results attached.

F = Dilution Factor Used

Approved By:

John Ladd

Date:

7/14/94



CHAIN OF CUSTODY RECORD

BILLS NO. 11



Analytical **Technologies**, Inc.

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

ATI I.D. 405331

May 19, 1994

El Paso Natural Gas Company
770 W. Navajo
Farmington, NM 87401

Project Name/Number: PIT PROJECT 24324

Attention: John Lambdin

On 05/06/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **aqueous** and **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.

Upon arrival, it was noted that sample 945055 contained headspace. The client was notified and the sample was analyzed "as is."

The laboratory was instructed to correct the sampling data for sample 945075 to 05/04/94.

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:jd

Enclosure





Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 405331
PROJECT # : 24324
PROJECT NAME : PIT PROJECT

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
14	945062	NON-AQ	05/03/94	05/09/94	05/13/94	25
15	945063	NON-AQ	05/03/94	05/09/94	05/13/94	25
16	945064	NON-AQ	05/03/94	05/09/94	05/13/94	5
PARAMETER			UNITS	14	15	16
BENZENE			MG/KG	2.4	<0.62	<0.12
TOLUENE			MG/KG	81	1.8	<0.12
YL BENZENE			MG/KG	12	1.4	0.86
TOTAL XYLENES			MG/KG	160	24	9.1

SURROGATE:

BROMOFLUOROBENZENE (%)	37*	48*	73
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*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

PIEZOMETER INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

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

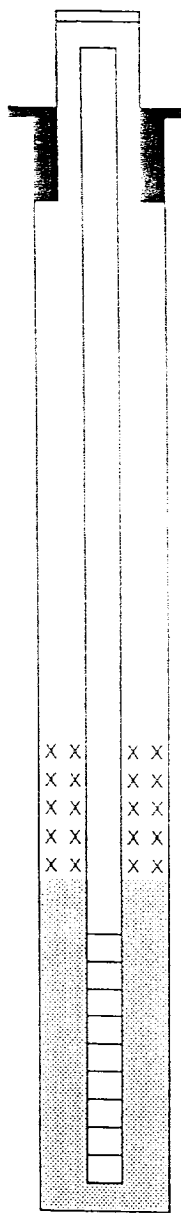
Borehole # PZ -
Well #
Page 1 of 1

Project Name EPFS PITS
Project Number 16297 Phase 6004
Site Location Johnson IE 93357
R13-T31-S21-P
On-Site Geologist CM CHANCE
Personnel On-Site CHARLEY F. RIVERA
Contractors On-Site
Client Personnel On-Site

Elevation
Well Location Center of Pit
GWL Depth 6.10 BGS 8.61 Top
Installed By K PADILLA

Date/Time Started 11/14/96
Date/Time Completed 11/14/96

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		
Bottom of Well Riser		
Top of Well Screen		
Bottom of Well Screen		
Top of Peltonite Seal		
Bottom of Peltonite Seal		
Top of Gravel Pack		
Bottom of Gravel Pack		
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		



Top of Protective Casing NA

Top of Riser

Ground Surface

Top of Seal

Top of Gravel Pack

Top of Screen 2.5

Bottom of Screen 7.3'

Bottom of Borehole 9'

Comments: 5' screen 5' riser

PIEZOMETER INSTALLATION RECORD

Philip Environmental Services, Inc.

4000 Monroe Rd.

Farmington, NM 87401

(505) 325-2262 FAX (505) 325-2388

Borehole # PZ-2

Well # _____

Page 1 of 1

Project Name EPFS PITS

Project Number 16297 Phase 6004

Site Location Johnson IE 93357

On-Site Geologist CM CHANCE

Personnel On-Site CHARLEY F. RIVERA

Contractors On-Site _____

Client Personnel On-Site _____

Elevation _____

Well Location SW of PZ1

GWL Depth 5.15 BGS 7-37702

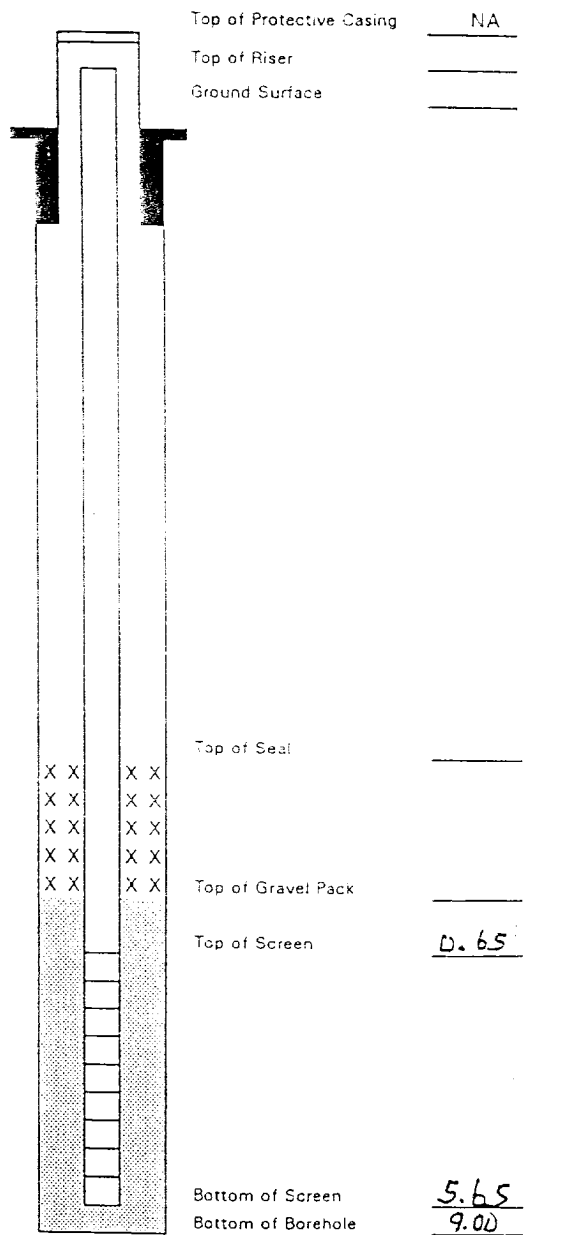
Installed By K PADILLA

Date/Time Started 11/18/96

Date/Time Completed 11/19/96

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		
Bottom of Well Riser		
Top of Well Screen		
Bottom of Well Screen		
Top of Peltonite Seal		
Bottom of Peltonite Seal		
Top of Gravel Pack		
Bottom of Gravel Pack		
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		



Comments: V. gravelly. 5' screen 2' riser

PIEZOMETER INSTALLATION RECORD

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

Borehole # PZ-3
Well # _____
Page 1 of 1

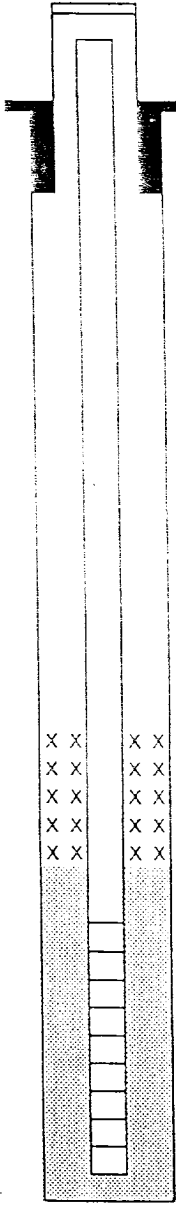
Project Name EPFS PITS
Project Number 16297 Phase 6004
Site Location Johnson IE 93357

Elevation _____
Well Location N. of PZ1
GWL Depth 4.45 to 4.1 BGS
Installed By K PADILLA

On-Site Geologist CM CHANCE
Personnel On-Site D CHARLEY F. River
Contractors On-Site _____
Client Personnel On-Site _____

Date/Time Started 11/18/96
Date/Time Completed 11/18/96

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				
Bottom of Well Riser				
Top of Well Screen				
Bottom of Well Screen				
Top of Peltonite Seal				
Bottom of Peltonite Seal				
Top of Gravel Pack				
Bottom of Gravel Pack				
Top of Natural Cave-In				
Bottom of Natural Cave-In				
Top of Groundwater				
Total Depth of Borehole				



Top of Protective Casing NA

Top of Riser _____

Ground Surface _____

Top of Seal _____

Top of Gravel Pack _____

Top of Screen _____

Bottom of Screen 4.46

Bottom of Borehole _____

Comments: 5' Screen



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC249	948000
MTR CODE SITE NAME:	93357	Johnson 1E
SAMPLE DATE TIME (Hrs):	11/14/96	1255
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL.:	11/18/96	11/19/96
TYPE DESCRIPTION:	PZ1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	145	PPB	5	D		
TOLUENE	112	PPB	5	D		
ETHYL BENZENE	207	PPB	5	D		
TOTAL XYLENES	2380	PPB	5	D		
TOTAL BTEX	2840	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 89.4 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: _____



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC250	948001
MTR CODE SITE NAME:	93357	Johnson 1E
SAMPLE DATE TIME (Hrs):	11/14/96	1335
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL:	11/18/96	11/19/96
TYPE DESCRIPTION:	PH1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	1.45	PPB				
TOTAL BTEX	1.45	PPB				

-BTEX is by EPA Method 8020 -

The Surrogate Recovery was at 87.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 11/25/96



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC251	948002
MTR CODE SITE NAME:	93357	Johnson 1E
SAMPLE DATE TIME (Hrs):	11/14/96	1355
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL.:	11/19/96	11/19/96
TYPE DESCRIPTION:	PH2	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB	2	D		
TOLUENE	<1	PPB	2	D		
ETHYL BENZENE	5.97	PPB	2	D		
TOTAL XYLENES	11.3	PPB	2	D		
TOTAL BTEX	17.3	PPB				

-BTEX is by EPA Method 8020 -

The Surrogate Recovery was at 86.8 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: Jon LatchDate: 11/25/96



ELF
Natural Gas Company

A 2001

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	Field ID CMC252	Lab ID 948013
MTR CODE SITE NAME:	93357	Johnson 1E
SAMPLE DATE TIME (Hrs):	11/18/96	1015
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL:	11/26/96	11/26/96
TYPE DESCRIPTION:	PZ2	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 a 98.9 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John F. Smith

Date:

11/27/96



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC253	948014
MTR CODE SITE NAME:	93357	Johnson 1E
SAMPLE DATE TIME (Hrs):	11/18/96	1045
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL:	11/26/96	11/26/96
TYPE DESCRIPTION:	PZ3	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 a
DF = Dilution Factor Used

95.2

% for this sample All QA/QC was acceptable.

Narrative:

Approved By:

Date:

11/27/96

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 JOHNSON #1E- 93357

Elevation _____
Borehole Location T31-R13-S21-Ltr P
GWL Depth 5.35' BGS (PZ-1)
Logged By D CESARK
Drilled By M DONOHUE
Date/Time Started 3/11/97 - 0900
Date/Time Completed 4 - 1000

Well Logged By D CESARK
Personnel On-Site A CHARLEY S ARCHULETA
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			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				BACKFILL						
5				TO 5' GWC 5' BGS						
7-11				GRAVEL/COBBLE ZONE						
10										
15				TD=13'						
20										
25										
30										
35										
40										

Comments:

GROUNDWATER ENCOUNTERED @ 5' BGS IN BACKFILL. OVER-DRILLED TO 13' BGS + SET WELL. TD = 13' BGS. NO SAMPLES COLLECTED. PLEASE REFER TO MW COMP. 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 GW PITS

Project Number

17520

Phase 6002.77

Site Location

JOHNSON #1E-93357

Elevation

Well Location

T31N-R13W-S21-LP

GWL Depth

5.35' BGS

Installed By

M DONOHUE

On-Site Geologist

D CESARK

Personnel On-Site

A CHARLEY S ARCHULETA

Contractors On-Site

Client Personnel On-Site

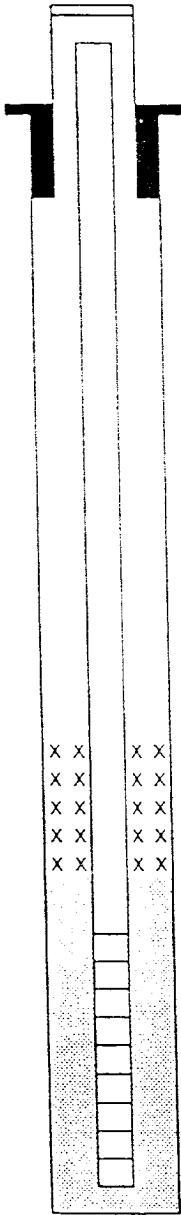
Date/Time Started

3/11/97 - 1000

Date/Time Completed

" - 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	4CH40 PYC	+3'
Bottom of Well Riser	"	-3'
Top of Well Screen	1010 SLOT	-3'
Bottom of Well Screen	"	-13'
Top of Peltonite Seal	ENVIROPLUG	-1'
Bottom of Peltonite Seal	"	-2'
Top of Gravel Pack	10-20 S.SND.	-2'
Bottom of Gravel Pack	"	-13'
Top of Natural Cave-In		-13'
Bottom of Natural Cave-In		-13.5'
Top of Groundwater		-5'
Total Depth of Borehole		-13.5'



Top of Protective Casing +3'

Top of Riser +3'

Ground Surface -0'

Top of Seal -1'

Top of Gravel Pack -2'

Top of Screen -3'

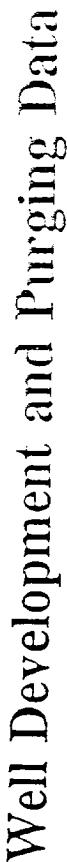
Bottom of Screen -13'

Bottom of Borehole -13.5'

Comments:

Geologist Signature

[Signature]



- ☒ Development
- ☒ Purging

Well Number MW-1Page 1 of 2

Project Name

GW PITS

Project Manager

C CHANCE

Project Name _____

Client Company _____

EPFS

Project No.

Phase.Task No. 6003,77

Site Name JOHNSON*1E 93357

Site Address

Development Criteria

Water Volume Calculation

Instruments

Serial No. (if applicable)

☒ 3 to 5 Casing Volumes of Water Removal

Initial Depth of Well (feet) 13' BGS

☒ pH Meter

Initial Depth to Water (feet) 5.5 B6-F

Height of Water Column In Well (feet) 7.5'

Methods of Development

Diameter (inches): Well 17 Gravel Pack

Pump

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kammerer

☐ Other

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Comments

Developer's Signature(s)

Date 5/28/92

Reviewer _____ Date _____



Water Sampling Data

Location No. MW-1Serial No. WSD-Group List Number Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 3/28/97Project Name EPFS GW PITS Project No. 17520Project Manager C CHANCE Phase Task No. 6003.77Site Name JOHNSON #1 E-93357

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) 13' AFS
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)	
3/28	1425	DC	10.6	7.53		79	5	.33		✓		
1	1440	"	10.4	7.37		100	5	.33		✓		
	1450	"	10.4	7.31		113	5	.5		✓		

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)
Preservatives: H = HCl; N = HNO₃; S = H₂SO₄; A = NaOH; O = Other (Specify); -- = None

Sample Containers

Analytical Parameter List	Container			Field Filtered		Preserved	Cooled During Collection		Comments
	Number	Type	Volume (mL)	Yes	No		Yes	No	
BTEX	DRC20	VV	40		✓	Y			

Chain-of-Custody Form Number Comments Signature [Signature] Date 3/28/97 Reviewer Date



EL PASO FIELD SERVICES



5-21-97

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC20	970233
MTR CODE SITE NAME:	93357	Johnson #1E
SAMPLE DATE TIME (Hrs):	3/28/97	1510
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. ANAL.:	4/3/97	4/4/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	15.3	PPB				
TOLUENE	18.0	PPB				
ETHYL BENZENE	11.5	PPB				
TOTAL XYLENES	194	PPB				
TOTAL BTEX	239	PPB				

The Surrogate Recovery was at 102 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John Ladd

Date: _____

4/8/97

Sample #	Meter/ Line #	Site Name	Sample Date	Project	S1	Benzene (PPB)	S2	Toluene (PPB)	S3	Ethyl Benzene (PPB)	S4	Total Nylenes (PPB)	S7	Total BTX PPB
970233 *	93357	Johnson #1E	3/28/97	Phase II Drilling - Initial	=	15.3	=	18	=	11.5	=	194	=	239
970520 *	93357	Johnson #1E	6/2/97	Sample 4 - 1st Qtr	<	1	<	1	<	1	<	3	<	6
971042 *	93357	Johnson #1E	9/22/97	Sample 4 - 2nd Qtr	<	1	<	1	<	1	<	3	<	6
971293 *	93357	Johnson #1E	12/10/97	Sample 4 - 3rd Qtr	<	1	<	1	<	1	<	3	<	6
980247	93357	Johnson #1E	3/23/98	Sample 4 - 4th Qtr	<	1	<	1	<	1	<	3	<	6

* Analytical reports provided to NMOCD in prior annual report.



Well Number MW-1
Meter Code 93357

☐	Development
☒	Purging

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

Initial Depth of Well (feet) 15.80
Initial Depth to Water (feet) 7.18
Height of Water Column in Well (feet) 8.62

☒	pH Meter
☐	DO Monitor
☒	Conductivity Meter
☒	Temperature Meter
☒	Other <u>D.O.C.</u>

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

KUT2 SEPARATOR

Other ☐

[illegible]

Developer's Signature Dennis Bird

Reviewer

John L. Luch

Date:

2/3/68



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980247
MTR CODE SITE NAME:	93357	Johnson #1E
SAMPLE DATE TIME (Hrs):	3/23/98	0948
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 102.3 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

Jon Tule

Date:

4/3/98

93357BTEXMW,3/31/98



A 2629

CHAIN OF CUSTODY RECORD

Project No.		Project Name		MC # 93357		Requested Analysis		Remarks	
Samplers: (Signature)		Date		Date: 3-23-98		Preservation Technique			
Barnes Bird						BTK			
Date	Time	Comp.	GRAB	Sample Number	Type and No. of Sample Containers	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Received by: (Signature)
WATER 3-23-98	0940		X	93023470	G-1 4°C				
WATER 3-23-98	—		X	—	G-1 4°C				
Relinquished by: (Signature)						Received by: (Signature)		Date/Time	
Barnes Bird								3-23-98 1613	
Relinquished by: (Signature)						Received by: (Signature)		Date/Time	
Relinquished by: (Signature)						Received for Laboratory by: (Signature)		Date/Time	
						Marian Nappan		3/24/98 1110	
Carrier Co:						Carried/Phone No.		Date Results Reported / by: (Signature)	
Air Bill No.:									