

3R - 224

REPORTS

DATE:

1997



Certified Mail: #Z 295 387 297; #Z 295 387 296

February 27, 1998

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

RECEIVED

MAR 02 1998

Environmental Bureau
Oil Conservation Division

Re: 1997 Groundwater Annual Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for 57 groundwater impacted locations that were identified during our pit closure project of 1994/1995.

Of the 57 reports, EPFS hereby requests your approval for closure of 11 of these locations. The 11 reports for which EPFS requests closure, are in 2 separate binders entitled "Request for Closure".

After you have had an opportunity to review these updates, EPFS would like to schedule a meeting with you to discuss issues related to closure criteria for some of the more complex locations that are currently being addressed.

If you have any questions regarding this information, please call me at 505/599-2141. I will contact you within the next quarter to schedule a meeting.

Sincerely,

A handwritten signature in cursive script that reads 'Sandra D. Miller'.

Sandra D. Miller
Environmental Manager

xc: Mr. Bill Liesse, BLM w/o enclosures

Mr. Denny Foust, NMOCD - Aztec w/enclosures; **Certified Mail #Z 295 387 298; #Z 295 387 299**

Ms. Charmaine Tso, Navajo EPA w/enclosures; **Certified Mail #Z 295 387 292**

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services Pit Project Groundwater Report
Annual Report

March 1998

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520

PHILIP
ENVIRONMENTAL

EPFS GROUNDWATER PITS

1997 ANNUAL GROUNDWATER REPORT

MILES FED #1E
Meter/Line ID - 94495

SITE DETAILS

Legals - Twn: 26N	Rng: 7W	Sec: 5	Unit: N
NMOCD Hazard Ranking: 50		Land Type: FEDERAL	
Operator: LOUIS DREYFUS			

PREVIOUS ACTIVITIES

Site Assessment: Jun-94	Excavation: Jul-94 (260 cy)	Re-Excavation: Nov-95 (1,020 cy)
Soil Boring: Mar-97	Monitor Well: Mar-97	

1997 ACTIVITIES

Monitor Well Installation - One groundwater monitoring well was installed in the center of the former pit.

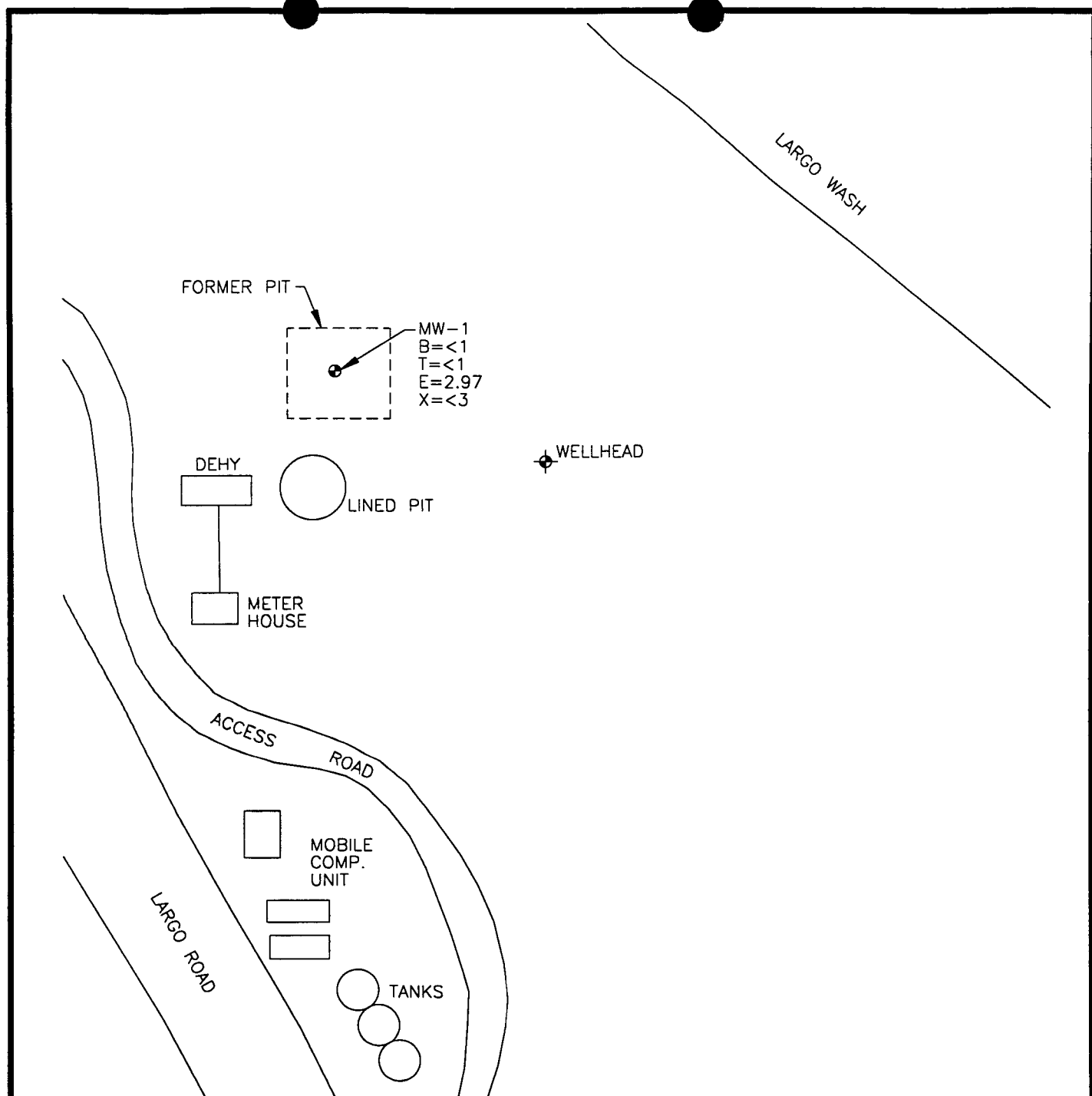
Quarterly Groundwater Sampling - Quarterly groundwater sampling was initiated at MW-1 on 6/5/97. Groundwater analytical data are presented in Table 1. A site map is presented in Figure 1.

CONCLUSIONS

Groundwater samples have been below standards since quarterly sampling was initiated. Minimal impact to groundwater has occurred at this site.

RECOMMENDATIONS

- Quarterly sampling will continue at MW-1 until 4 consecutive clean quarters are achieved.
- 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 TOLUENE (ug\L)
E ETHYL BENZENE (ug\L)
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

NOT TO SCALE



COL 17520AL-001



TITLE:

MILES FED 1E
94495

DWN:

TMM

DES.:

CC

PROJECT NO.:

17520

EPFS GW PITS

CHKD:

CC

APPD:

DATE:

1/14/98

REV.:

0

FIGURE 1

TABLE 1

Sample #	Meter/ Line #	Site Name	Sample Date	MV #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
970242	94495	Miles Fed #1E	4/2/97	1	Phase II Drilling - Initial	< 1	< 1	< 1	< 3	< 6
970530	94495	Miles Fed #1E	6/5/97	1	Sample 4 - 1st Qtr	= 5.29	< 1	= 10.7	< 3	= 16
970972	94495	Miles Fed #1E	9/11/97	1	Sample 4 - 2nd Qtr	= 1.19	< 1	= 2.51	< 3	= 4
971263	94495	Miles Fed #1E	12/2/97	1	Sample 4 - 3rd Qtr	< 1	< 1	= 2.97	< 3	= 3

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

MILES FED # 1E-94495

Elevation

Borehole Location T26 R7 - S5 - Ltr N

GWL Depth 19' BGS

Logged By D CESARK

Drilled By K PADILLA

Date/Time Started 3/13/97 - 1230

Date/Time Completed 11 - 1300

Well Logged By

D CESARK

Personnel On-Site

D CHARLEY, C MAIS

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
0				BACKFILL			BZ	BH	S	
5				TO						
10				21'						
15				(HIGHLY CONTAMIN. SOIL)						
20				TD=25'						
25										
30										
35										
40										

Comments:

ENCOUNTERED GW IN FILL MATERIAL C 19' BGS. OVER-DRILLED TO 25' BGS + SET MW-1. NO SAMPLES COLLECTED. PLEASE REFER TO MW INSTALL. RECORD.

Geologist Signature

[Signature]

Geologist Signature

**1997 GROUNDWATER
ANALYTICAL**



El Paso
Natural Gas Company

CHAIN OF CUSTODY RECORD

Page:

1

[illegible]

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

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



5-22-97

FIELD SERVICES LABORATORY

ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC26	970242
MTR CODE SITE NAME:	94495	Miles Fed #1E
SAMPLE DATE TIME (Hrs):	4/2/97	1405
PROJECT:	Phase II Drilling - Initial	
DATE OF BTEX EXT. ANAL.:	4/4/97	4/4/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

RESULTS

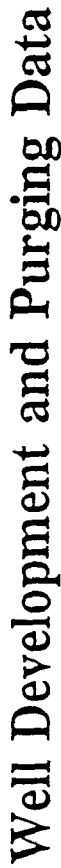
PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

The Surrogate Recovery was at 105 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: John ZaidaDate: 4/8/97

970242,4/8/97



~~Development~~
~~Purging~~

Page of

Site Name MILES FEDERAL #1E-9449S

Water Volume Calculation

- Initial Depth of Well (feet) 25' 665
Initial Depth to Water (feet) 12' 665
Height of Water Column in Well (feet) 13'

Pump

- ☐
- Other

[illegible]

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

Circle the date and time that the development engineer examined.	Comments
	First 2-3 bales clear, rest were muddy, removed alot of silt, almost baled well dry.

Developer's Signature(s) _____ Date 4/2/47
Reviewer _____ Date _____

Water Sampling Data

Location No. MW-1

Serial No. WSD-

Group List Number

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 4/2/97

Project Name EPFS GW DITS Project No. 17520

Project Manager C CHANCE Phase Task No. 6003.77

Site Name MILES FEDERAL #1 E - 94495

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

[illegible]

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

[illegible]

or Type _____

Chain-of-Custody Form Number _____

Comments ✖ PLEASE REFER TO WELL DEVELOPMENT + PURGING DATA FORM

Signature [Signature] Date 4/2/97 Reviewer _____ Date _____



A 2478

[illegible]



7-21-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970530
MTR CODE SITE NAME:	94495	Miles Fed #1E MW-1
SAMPLE DATE TIME (Hrs):	6/5/97	1612
PROJECT:	Sample 4 - 1st Quarter	
DATE OF BTEX EXT. ANAL.:	6/6/97	6/6/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	5.29	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	10.7	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	16.0	PPB				

The Surrogate Recovery was at 92.0 for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John Ladd

Date:

6/18/97

970530,6/16/97



Field Services Laboratory
Analytical Report

7-21-97

SAMPLE IDENTIFICATION

EPFS LAB ID:	970530
DATE SAMPLED:	06/05/97
TIME SAMPLED (Hrs):	1612
SAMPLED BY:	N/A
MATRIX:	Water
METER CODE:	94495
SAMPLE SITE NAME:	Miles Fed #1E
SAMPLE POINT:	MW-1

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Laboratory pH	7.9	Units	06/09/97
Alkalinity as CO ₃	0.0	PPM	06/09/97
Alkalinity as HCO ₃	1380	PPM	06/09/97
Calcium as Ca	93	PPM	06/09/97
Magnesium as Mg	18	PPM	06/09/97
Total Hardness as CaCO ₃	308	PPM	06/09/97
Chloride as Cl	54	PPM	06/06/97
Sulfate as SO ₄	1,180	PPM	06/06/97
Fluoride as F	6.8	PPM	06/10/97
Nitrate as NO ₃ -N	<0.6	PPM	06/06/97
Nitrite as NO ₂ -N	<0.6	PPM	06/06/97
Ammonium as NH ₄ ⁺	<0.6	PPM	06/09/97
Phosphate as PO ₄	<0.6	PPM	06/06/97
Potassium as K	6	PPM	06/09/97
Sodium as Na	1070	PPM	06/11/97
Total Dissolved Solids	3,020	PPM	06/09/97
Conductivity	4,150	umhos/cm	06/06/97
Anion/Cation %	3.7%	%, <5.0 Accepted	06/16/97

Lab Remarks:

Reported By:

Inda

Approved By:

John Ladden

Date: 6-18-97



7-21-97

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	970530
SAMPLE DATE:	06/05/97
SAMPLE TIME (Hrs):	1612
SAMPLED BY:	N/A
MATRIX:	Water
METER CODE:	94495
SAMPLE SITE NAME:	Miles Fed #1E
SAMPLE POINT:	MW-1

REMARKS:

RESULTS

PARAMETER	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC	<.029	0.100
BARIIUM	0.11	1.00
CADMIUM	<.0002	0.010
CHROMIUM	0.006	0.050
LEAD	<.002	0.050
MERCURY	<0.0002	0.002
SELENIUM	<0.005	0.050
SILVER	0.0008	0.050

NOTE: The sample results have been corrected for volume adjustment associated with Method 3015.

References:

Method 3015, Microwave Assisted Acid Digestion of Aqueous Samples and Extracts, Test Methods for Evaluating Solid Waste, SW-846, Sept., 1994.
Method 7061A, Arsenic (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
Method 7081, Barium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.
Method 7131, Cadmium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
Method 7191, Chromium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
Method 7421, Lead (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986.
Method 245.5, Mercury (Automated Cold Vapor Technique), Methods for the Determination of Metals in Environmental Samples, EPA 600/4-91/010, USEPA, June, 1991.
Method 7741A, Selenium (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1994.
Method 7761, Silver (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

Reported By:

Approved By:

Date:

7/17/97



QUALITY CONTROL REPORT

Sample ID: 970530
Date Reported: 07/16/97

LABORATORY CONTROL SAMPLE

Analyte	Found Result (mg/L)	Known Value (mg/L)	% Recovery
Arsenic	0.031	0.032	97%
Barium	0.062	0.065	96%
Cadmium	0.0025	0.0024	104%
Chromium	0.0049	0.0048	103%
Lead	0.033	0.030	111%
Mercury	0.0043	0.0046	93%
Selenium	0.038	0.041	94%
Silver	0.0051	0.0043	118%

DUPLICATE ANALYSIS (mg/L)

Analyte	Original Sample Result	Duplicate Sample Result	% RPD
Arsenic	ND	ND	NA
Barium	ND	ND	NA
Cadmium	ND	ND	NA
Chromium	0.0052	0.0048	8.3%
Lead	ND	ND	NA
Mercury	ND	ND	NA
Selenium	ND	ND	NA
Silver	0.0024	0.0023	4.3%

SPIKE ANALYSIS (mg/L)

Analyte	Original Sample Result	Spike Sample Result	Spike Added	Recovery Percent
Arsenic	0.012	0.107	0.100	95.1%
Barium	0.018	0.960	1.00	94.2%
Cadmium	ND	0.0091	0.010	91.2%
Chromium	0.005	0.054	0.050	96.9%
Lead	ND	0.039	0.050	77.3%
Mercury	ND	0.0017	0.0020	84.5%
Selenium	ND	0.047	0.050	93.2%
Silver	0.0020	0.0509	0.050	97.8%

METHOD BLANK

Analyte	Found Result (mg/L)	Detection Level (mg/L)
Arsenic	ND	0.027
Barium	ND	0.019
Cadmium	ND	0.0002
Chromium	ND	0.004
Lead	ND	0.002
Mercury	ND	0.0002
Selenium	ND	0.011
Silver	ND	0.0005

ND: Not Detected at stated detection level.

NA: Not Applicable.

Reported By: mh

Approved By: John L. Linder

Date: 7/17/97



Well Number MW-1
Meter Code 94495

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 29.10
Initial Depth to Water (feet) 15.80
Height of Water Column in Well (feet) 13.3
Diameter (inches): Well 4 Gravel Pack

Methods of Development

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

☐ Other _____

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other _____

Water Disposal

KUTZ SEPARA TOR

[illegible]

Comments	BALLED DRY @ 15.0 GALLONS
----------	---------------------------

Developer's Signature Dennis Birch Date 6-5-97 Reviewer John Lardner Date 6-18-97



Natural Gas Company

A 2077

CHAIN OF CUSTODY RECORD

[illegible]



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970972
MTR CODE SITE NAME:	94495	Miles Federal #1E
SAMPLE DATE TIME (Hrs):	9/11/97	1534
PROJECT:	Sample 4 2nd Quarter	
DATE OF BTEX EXT. ANAL.:	9/16/97	9/16/97
TYPE DESCRIPTION:	MW-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1.19	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	2.51	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	4	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 111.1 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

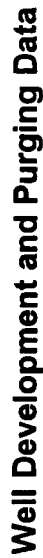
Approved By:

John J. Judd

Date:

9-22-97

970972BTEXMW,9/18/97



Well Number WWF-1
Meter Code 94495

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 29.18
Initial Depth to Water (feet) 15.31
Height of Water Column In Well (feet) 13.29
Diameter (inches): Well 4 Gravel Pack

Methods of Development

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

☐ Other

Instruments

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other DO

Water Disposal

K012 SEP497R

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		8.8	76.4
Gravel Pack			
Drilling Fluids			
Total			

Water Removal Data

[illegible]

Comments: THE WEN BAILED OUT @ 15.0 GALLONS.

Developer's Signature Dennis Bied Date 9-16-97 Reviewer John Faldut Date 9-22-97



A 2148

CHAIN OF CUSTODY RECORD

[illegible]



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971263
MTR CODE SITE NAME:	94495	Miles Federal #1E
SAMPLE DATE TIME (Hrs):	12/2/97	1508
PROJECT:	Sample 4 3rd Quarter	
DATE OF BTEX EXT. ANAL.:	12/3/97	12/3/97
TYPE DESCRIPTION:	MW-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	2.97	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	3	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 98.7 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative:

Approved By:

John Lardie

Date:

1/2/98

971263BTEXMW,12/5/97



Well Development and Purging Data

Well Number MW-1
Meter Code 94495

Site Name *MILES FEDERAL 1E*

Development Criteria

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

Methods of Development

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

☐ Other _____

Water Volume Calculation

Initial Depth of Well (feet) 29.10
Initial Depth to Water (feet) 15.78
Height of Water Column in Well (feet) 13.32

Diameter (inches): Well **4** Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		8.8	26.4
Gravel Pack			
Drilling Fluids			
Total			

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☒ Other DO C

Water Disposal

KV72 SEP 1970

Water Removal Data

[illegible]

Comments THE WELL BAILED DRY @ 15.0 GALLONS.

Developer's Signature Jennis Bird

Date 12-2-97

Just for

Date 1/2/98