

**3R - 164**

# **REPORTS**

**DATE:**

**1998**

**Certified Mail: #Z 211 324 121**

March 31, 1999

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

**RECEIVED**

**APR 05 1999**

**ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION**

**RE: 1998 Pit Project Annual Groundwater Report**

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for the 49 remaining groundwater impacted locations that were identified during our pit closure project of 1994 / 1995.

Of the 49 reports, EPFS hereby requests closure of 18 of these locations. The 18 sites EPFS is requesting closure on are presented in 4 separate binders entitled "Final Closure Report for Groundwater Sites with Four Consecutive Quarters Below Standards".

The Jaquez Com. C #1 and Jaquez Com. E #1 site is included in a separate report which is entitled "Jaquez Com. C #1 and Jaquez Com. E #1 Annual Report for Soil and Groundwater Remediation".

If you have any questions concerning the enclosed reports or closure requests, please call me at (505) 599-2124.

Sincerely,



Scott T. Pope P.G.  
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # Z 211 324 122**  
Mr. Bill Liesse, BLM - w / enclosures; **Certified Mail # Z 211 324 123**  
Ms. Charmaine Tso, Navajo EPA - w / enclosures; **Certified Mail # Z 211 324 120**

**SAN JUAN BASIN PIT CLOSURES**  
**San Juan Basin, New Mexico**

**El Paso Field Services**  
**Final Closure Report For Groundwater Sites With Four**  
**Consecutive Quarters Below Standards**

**December 1998**

**Prepared For**

**El Paso Field Services**  
**Farmington, New Mexico**

**Project 17520**  
**Book 1**



# EPFS GROUNDWATER PITS 1998 ANNUAL GROUNDWATER REPORT

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COLDIRON COM A #1  
Meter/Line ID - 73551

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## SITE DETAILS

Legals - Twn: 30N      Rng: 11W      Sec: 2      Unit: K  
NMOCD Hazard Ranking: 40      Land Type: FEE  
Operator: AMOCO PRODUCTION COMPANY

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## PREVIOUS ACTIVITIES

Site Assessment: Mar-94      Excavation: Apr-94 (50 cy)      Soil Boring: Oct-95  
Monitor Well: Oct-95      Quarterly Sampling Initiated: Apr-96

## 1998 ACTIVITIES

**Quarterly Groundwater Monitoring** - Quarterly groundwater monitoring continued through 1998. Groundwater analytical data are presented in Table 1. A site map is presented as Figure 1. Quarterly sampling was discontinued the first two quarters of 1998. Quarterly sampling started again in July of 1998.

## CONCLUSIONS

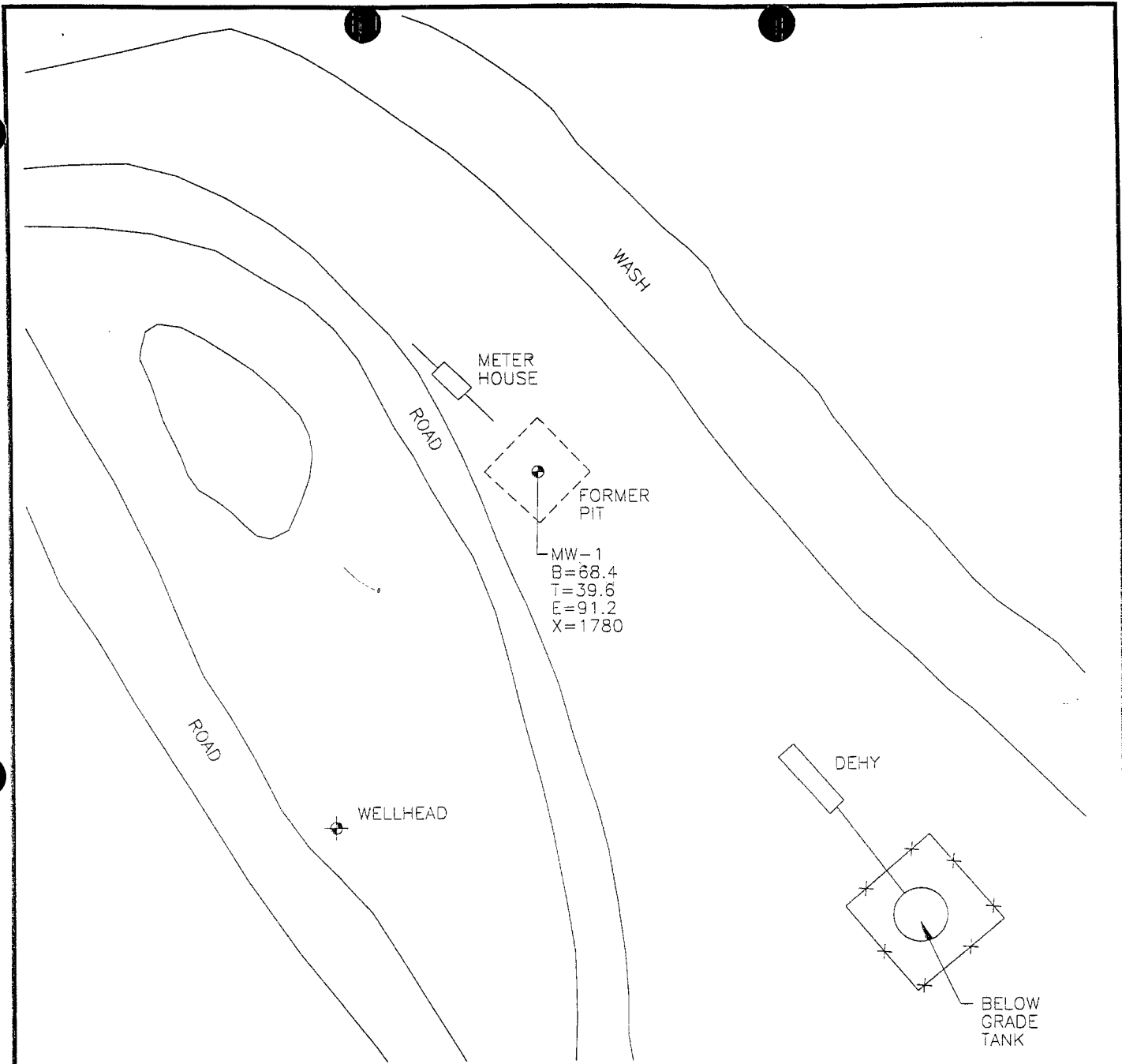
Analytical results of groundwater samples from MW-1 show levels of benzene and total xylenes above New Mexico Groundwater Standards. During the July sampling event, MW-1 contained a 0.09 foot thick layer of phase separated hydrocarbons floating on the groundwater.

Pertinent data from the 1997 groundwater report include the following: Based on groundwater levels collected from temporary well point data, the groundwater flow trends to the northwest on this site. Product has been measured in MW-1 averaging 0.09 feet to 0.24 feet.

One groundwater sample collected up-gradient from MW-1 at PH-2 was in excess of standards for all BTEX components and indicates the production pit up-gradient of MW-1 may be an additional source.

## RECOMMENDATIONS

- EPFS proposes to conduct annual sampling at the site.
- Initiate product removal at MW-1.
- Following removal of product, sample annually until BTEX levels are below New Mexico Groundwater Standards, then sample quarterly for closure.
- EPFS will contact operator and provide pertinent site data regarding EPFS activities at the site.



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



TITLE:  
 COLDIRON COM A#1  
 METER 73551  
 OCTOBER 8, 1998

DWN: TMM	DES.: CI
CHKD: CI	APPD:
DATE: 2/26/99	REV.: 0

PROJECT NO.: 17520  
 EPFS GW PITS  
 FIGURE 1

COL. 1752DAY-0

EPFS Groundwater Pits  
1998 Groundwater Report

TABLE 1

Sample #	Meter/Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
980535	73551	Coldiron A #1	07/21/98	1	Sample 4 - 6th Quarter	79.6	74.0	172.0	4250	4575
980698	73551	Coldiron A #1	10/08/98	1	Sample 4 - 7th Quarter	68.4	39.6	91.2	1780	1979

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**1998 GROUNDWATER  
ANALYTICAL**

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# Well Development and Purging Data

Well Number MW-1  
 Meter Code 73551

Development  
 Purging

Site Name COLAZION A#1

## Development Criteria

- 3 to 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other \_\_\_\_\_

## Methods of Development

- Pump
  - Centrifugal
  - Submersible
  - Peristaltic
  - Other \_\_\_\_\_
- Bailor
  - Bottom Valve
  - Double Check Valve
  - Stainless-steel Kemmerer

## Water Volume Calculation

Initial Depth of Well (feet) 45.2  
 Initial Depth to Water (feet) 37.34  
 Height of Water Column in Well (feet) 7.90

Diameter (inches): Well 4 Gravel Pack \_\_\_\_\_

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>5.3</u>	<u>15.7</u>
Gravel Pack			
Drilling Fluids			
Total			

## Instruments

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

## Water Disposal

KUTZ SEPARATOR

## Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)		pH	Conductivity $\mu\text{mho/cm}$	Dissolved Oxygen mg/L	Comments
						Increment	Cumulative	Increment	Cumulative				
7-21-98	1501									6.62	3310		
7-21-98	1508					5.0	5.0			6.87	3600		
7-21-98	1518					5.0	10.0			7.11	3980		
7-21-98	1526					5.0	15.0			7.17	4220		
7-21-98	1539					5.0	20.0			7.24	4310	0.5	

Comments THE WELL HAD 2.09 OF FREE FLOATING HYDROCARBON.

Developer's Signature Dennis Bird

Date 7-21-98 Reviewer John Seach

Date 7/22/98





# EL PASO FIELD SERVICES

## FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980535
MTR CODE   SITE NAME:	73551	Coldiron A #1
SAMPLE DATE   TIME (Hrs):	7/21/98	1551
PROJECT:	Sample 4 6th Quarter	
DATE OF BTEX EXT.   ANAL.:	7/27/98	7/27/98
TYPE   DESCRIPTION:	MW-1	Water

Field Remarks: \_\_\_\_\_

### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	79.6	PPB	2	D		
TOLUENE	74.0	PPB	2	D		
ETHYL BENZENE	172	PPB	2	D		
TOTAL XYLENES	4250	PPB	10	D		
TOTAL BTEX	4575	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 94.2 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indicates that the analyte calculated is based on a secondary dilution factor.

Narrative: \_\_\_\_\_

Approved By: \_\_\_\_\_

*John Sward*

Date: \_\_\_\_\_

*7/29/98*

980535BTEXMW,7/29/98

SAMPLE 4 6TH QTR



El Paso  
Natural Gas Company

A 2374

CHAIN OF CUSTODY RECORD

Project No.	Project Name		Requested Analysis	Remarks
	Date	Time		
	MC #73551			
Samplers: (Signature) <i>Dennis Bred</i> Date: 7-21-98				
Type and No. of Sample Containers				
Preservation Technique <i>BTK</i>				
Type and No. of Sample Containers				
G-1 4°C X				
Requested Analysis				
COLLECTION A #1 MW-1				
Sample Number				
980535				
Date				
7-21-98				
Time				
1551				
Comp. GRAB				
X				
Received by: (Signature)				
<i>Dennis Bred</i>				
Date/Time				
7-21-98 1727				
Relinquished by: (Signature)				
Date/Time				
Received for Laboratory by: (Signature)				
<i>Maria Hopper</i>				
Date/Time				
7/22/98 1600				
Remarks:				
Carrier/Phone No.				
Date Results Reported / by: (Signature)				
Air Bill No.:				



# Well Development and Purging Data

Well Number MW-1  
 Meter Code 73551

Development  
 Purging

Site Name COLDIRON A #1

## Development Criteria

- 3 to 5 Casing Volumes of Water Removal
- Stabilization of Indicator Parameters
- Other \_\_\_\_\_

## Methods of Development

- Pump
  - Centrifugal
  - Submersible
  - Peristaltic
- Bailer
  - Bottom Valve
  - Double Check Valve
  - Stainless-steel Kemmerer
- Other \_\_\_\_\_

## Water Volume Calculation

Initial Depth of Well (feet) 45.24  
 Initial Depth to Water (feet) 37.14  
 Height of Water Column in Well (feet) 8.10  
 Diameter (inches): Well 4 Gravel Pack \_\_\_\_\_

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		<u>5.4</u>	<u>16.1</u>
Gravel Pack			
Drilling Fluids			
Total			

## Instruments

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

## Water Disposal

KUTZ SEPARATOR

## Water Removal Data

Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gal)		Product Volume Removed (gallons)		Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
		Pump	Bailer				Increment	Cumulative	Increment	Cumulative					
10-8-98	1440										20.4	6.56	3340		
10-8-98	1449						5.0	5.0			18.7	6.82	3920		
10-8-98	1455						5.0	10.0			18.0	7.04	4520		
10-8-98	1504						5.0	15.0			18.0	7.18	4620		
10-8-98	1512						5.0	20.0			17.8	7.74	4790	1.0	

Comments THE WATER HAD A LIGHT HYDROCARBON SMELL.

Developer's Signature Dennis Bird

Reviewer J. L. Feola

Date 10-8-98

Date 10/15/98

**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	980698
MTR CODE   SITE NAME:	73551	Coldiron A #1
SAMPLE DATE   TIME (Hrs):	10/8/98	1523
PROJECT:	Sample 4 7th Quarter	
DATE OF BTEX EXT.   ANAL.:	10/12/98	10/12/98
TYPE   DESCRIPTION:	MW-1	Water

Field Remarks: \_\_\_\_\_

**RESULTS**

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	68.4	PPB				
TOLUENE	39.6	PPB				
ETHYL BENZENE	91.2	PPB				
TOTAL XYLENES	1780	PPB	5	D		
TOTAL BTEX	1979	PPB				

--BTEX is by EPA Method 8020 --

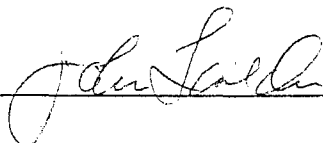
The Surrogate Recovery was at 99.9 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indicates that the analyte calculated is based on a secondary dilution factor.

Narrative: \_\_\_\_\_

Approved By: \_\_\_\_\_



Date: \_\_\_\_\_

10/15/98

980698BTEXMW, 10/15/98

*Sample # 7TH QTZ*

**CHAIN OF CUSTODY RECORD**

Project No.		Project Name			Type and No. of Sample Containers	Requested Analysis	Remarks
Samplers: (Signature) _____		Date: <i>10-8-98</i>					
Date	Time	Comp.	GRAB	Sample Number	<i>GPC X</i>	<i>COALITION A#1 MW-1</i>	
<i>10/8/98</i>	<i>1533</i>		<i>X</i>	<i>980678</i>			
<del>_____</del>							
<b>Relinquished by: (Signature)</b> <i>Dennis Bead</i>					<b>Received by: (Signature)</b>	<b>Date/Time</b> <i>10-8-98 1723</i>	<b>Received by: (Signature)</b>
<b>Relinquished by: (Signature)</b>					<b>Relinquished by: (Signature)</b>	<b>Date/Time</b>	<b>Received by: (Signature)</b>
<b>Relinquished by: (Signature)</b>					<b>Relinquished by: (Signature)</b>	<b>Date/Time</b>	<b>Received by: (Signature)</b>
Carrier Co:					Remarks:		
Air Bill No.:					<i>10/12/98 0830</i>		
Carrier Co:					Date Results Reported / by: (Signature)		