3R - 174

REPORTS

DATE:
1999

EL PASO FIELD SERVICES

Certified Mail: **#Z 213 707 666 (Box 1 of 2)**
#Z 213 707 664 (Box 2 of 2)

March 24, 2000

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

RE: 1999 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for the 32 remaining groundwater impacted locations that were identified during our pit closure project of 1994 / 1995.

Of the 32 reports, EPFS hereby requests closure of 4 of these locations. The 4 sites EPFS is requesting closure on are presented in one separate binder entitled "San Juan Basin Pit Closures, El Paso Field Services, Pit Closure Reports".

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".

EPFS has also included for your information five Navajo sites in a separate binder and a separate report for the Bisti Flare Pit #1.

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 213 707 667**
Mr. Bill Liesse, BLM – w / enclosures; **Certified Mail # Z 213 707 668**
Mr. John Jaquez, - w / Jaquez enclosures; **Certified Mail # Z 213 707 669**
Ms. Charmaine Tso, Navajo EPA – w / enclosures; **Certified Mail # Z 213 707 670**

bc: J. A. Lambdin w / enclosures
Philip Services Corp. – Cecil Irby, w / o enclosures
B. B. McDaniel / 24321 – NMOCD Regulatory w / o

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services Pit Project Groundwater Report
Annual Report

RECEIVED
MAR 2 9 2000
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

March 2000

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 62800158

PSC
PHILIP SERVICES
CORP.

EPFS GROUNDWATER PITS
1999 ANNUAL GROUNDWATER REPORT

FOGELSON 4-1 COM #14
Meter/Line ID - 73220

SITE DETAILS

Legals - Twn: 29N **Rng:** 11W **Sec:** 4 **Unit:** P
NMOCD Hazard Ranking: 10 **Land Type:** FEDERAL
Operator: BURLINGTON RESOURCES

PREVIOUS ACTIVITIES

Site Assessment: Mar-94 **Excavation:** Apr-94 (65 cy) **Soil Boring:** Oct-95
Monitor Well: Oct-95 **Geoprobe:** Dec-96 **Quarterly Sampling Initiated:** Dec-96

1999 ACTIVITIES

Annual Groundwater Monitoring – Annual groundwater monitoring was initiated in June of 1998. Annual groundwater sampling was conducted in May 1999.

Operator Notification- The operator was notified that up-gradient production pits might be causing contamination of groundwater. Quarterly sampling was discontinued in June of 1998.

SUMMARY TABLES

Groundwater analytical data are presented in Table 1. Copies of the laboratory data sheets and the associated quality assurance/quality control data are presented in Attachment 1.

SITE MAP

A site map is presented as Figure 1.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

There were no drilling activities at this site in 1999.

DISPOSITION OF GENERATED WASTES

There were no wastes generated at this site in 1999.

ISOCONCENTRATION MAPS

None generated for this site.

CONCLUSIONS

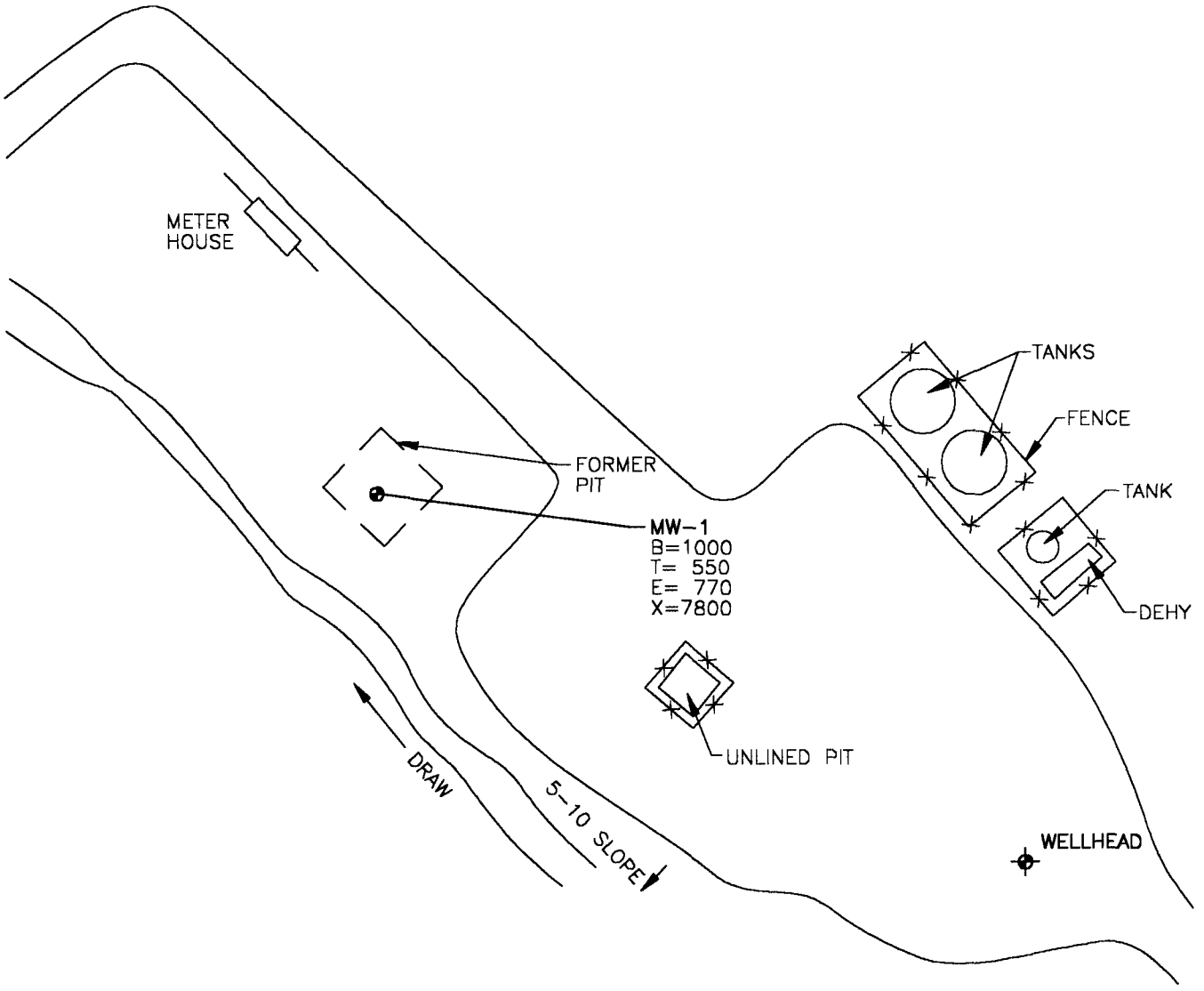
Analytical results of groundwater samples from MW-1 show levels of benzene, ethyl benzene and total xylenes above New Mexico Groundwater Standards. Quarterly sampling was discontinued in June of 1998 while EPFS waited for the operator to investigate the unlined pit associated with their operations at the location. In 1999, the operator excavated the unlined pit, backfilled the pit, and installed a monitoring well.

Pertinent data from past groundwater reports include the following: Based on groundwater levels collected from temporary well point data, the direction of groundwater flow is to the west on this site. Groundwater samples collected from MW-1 have been above standards for benzene, and total xylenes since quarterly sampling was initiated. Downgradient and upgradient Geoprobe and

temporary well point groundwater samples are also in excess of standards. Additional monitoring wells will be required to define extent of migration.

RECOMMENDATIONS

- Quarterly groundwater sampling of MW-1.
- Install two downgradient monitoring wells to define extent of migration.
- Annual groundwater sampling of the two proposed monitoring wells.
- EPFS will continue to work with the operator at this location and has supplied operator with data collected by EPFS.



LEGEND

⊕ MW-1	MONITORING WELL NUMBER AND APPROXIMATE LOCATION
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

N

TITLE: FOGELSON 4-1 #14 METER 73220 JUNE 15, 1999	DWN: CJG	DES.: CI	PROJECT NO.: 17520 EPFS GW PITS	
	CHKD: CI	APPD:		
	DATE: 03/20/00	REV.: 0	FIGURE 1	

COL 17520BK-002

TABLE 1

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
990290	73220	Fogelson 4-1 Com. #14	06/15/99	1	Sample 4 - 8th Quarter	= 1000	= 550	= 770	= 7800	= 10120

ATTACHMENT 1
1999 GROUNDWATER ANAYLTICAL

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NA	990290
MTR CODE | SITE NAME:	73220	Fogelson 4-1 COM #14
SAMPLE DATE | TIME (Hrs):	6/15/99	1548
PROJECT:	Annual	
)ATE OF BTEX EXT. | ANAL.:	NA	6/21/99
TYPE | DESCRIPTION:	MW-1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	1000	PPB	20	D		
TOLUENE	550	PPB	20	D		
ETHYL BENZENE	770	PPB	20	D		
TOTAL XYLENES	7800	PPB	20	D		
TOTAL BTEX	10120	PPB				

--BTEX is by EPA Method 8021 Modified --

The Surrogate Recovery was at 96 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used
The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

Narrative:
This sample was analyzed by Pinnacle Laboratories, Albuquerque, NM.

Approved By: John Saldana Date: 6/24/99

EL PASO FIELD SERVICES

Well Development and Purging Data

☐ Development
☐ Purging

Well Number MW-1

Site Name FOGELSON 4-1 COM #14

Meter Code 73220

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removel
☐ 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) 47.79
Initial Depth to Water (feet) 44.88
Height of Water Column in Well (feet) 5.91
Diameter (inches): Well 4 Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing		3.9	11.7
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	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					
6-15-99	1457										21.0	7.13	14130		
6-15-99	1506						5.0	5.0			20.1	7.15	14920		
6-15-99	1515						5.0	10.0			19.7	7.18	16210		
6-15-99	1525						5.0	15.0			20.4	7.17	16000		
6-15-99	1535						5.0	20.0			20.6	7.19	15990	0.5	

Comments THE WATER HAD A STRONG HYDROGEN SULFIDE SMELL.

Developer's Signature Dennis Bird Date 6-15-99 Reviewer John Saunders Date 6/24/99

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **906065**
June 22, 1999

EL PASO FIELD SERVICES
770 WEST NAVAJO
FARMINGTON, NM 87401

Project Name PIT MONITOR WELLS
Project Number (none)

Attention: JOHN LAMBDIN

On 6/18/99 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592), received a request to analyze **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.
General Manager

MR: mt

Enclosure

Reviewed & Accepted
J. Lambdin 6/24/99

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: EL PASO FIELD SERVICES	PINNACLE ID	: 906065
PROJECT #	: (none)	DATE RECEIVED	: 6/18/99
PROJECT NAME	: PIT MONITOR WELLS	REPORT DATE	: 6/22/99

PIN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	990290	AQUEOUS	6/15/99
02	990291 (TRIP BLANK)	AQUEOUS	6/15/99

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : EL PASO FIELD SERVICES
PROJECT # : (none)
PROJECT NAME : PIT MONITOR WELLS

PINNACLE I.D.: 906065

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	990290	AQUEOUS	6/15/99	NA	6/21/99	20
02	990291 (TRIP BLANK)	AQUEOUS	6/15/99	NA	6/21/99	1

PARAMETER	DET. LIMIT	UNITS	990290	990291 (TRIP BLANK)
BENZENE	0.5	**UG/L**	**1000**	< 0.5
TOLUENE	0.5	**UG/L**	**550**	< 0.5
ETHYLBENZENE	0.5	**UG/L**	**770**	< 0.5
TOTAL XYLENES	0.5	**UG/L**	**7800**	< 0.5
SURROGATE:				
BROMOFLUOROBENZENE (%)			96	96
SURROGATE LIMITS	(80 - 120)			

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 906065
BLANK I. D.	: 062199	DATE EXTRACTED	: N/A
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 6/21/99
PROJECT #	: (none)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: PIT MONITOR WELLS		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOFLUOROBENZENE (%)		93
SURROGATE LIMITS:	(80 - 120)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8021 MODIFIED		
MSMSD #	: 062199	PINNACLE I.D.	: 906065
CLIENT	: EL PASO FIELD SERVICES	DATE EXTRACTED	: N/A
PROJECT #	: (none)	DATE ANALYZED	: 6/21/99
PROJECT NAME	: PIT MONITOR WELLS	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	22.1	111	22.0	110	0	(80 - 120)	20
TOLUENE	<0.5	20.0	19.8	99	20.1	101	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.4	107	20.5	103	4	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.2	102	59.1	99	3	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network (NM), Inc.

CHAIN OF CUSTODY

DATE: 6-16-99 PAGE: 1 OF 1

AEN(NM) Accession #: 906065

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER: JOHN GRAEVE

COMPANY: [illegible]

ADDRESS: [illegible]

PHONE: [illegible]

FAX: [illegible]

BILL TO: (SAME AS ABOVE)

COMPANY:

ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
[illegible]	6-11	[illegible]	WATER	01
[illegible]	6-11	[illegible]	WATER	02

ANALYSIS REQUEST

	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline)	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310)	General Chemistry:			Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
01					X																						2
02					X																						1

PROJECT INFORMATION

PROJ. NO.:

PROJ. NAME: [illegible]

P.O. NO.: n/a

SHIPPED VIA: [illegible]

SAMPLE RECEIPT

NO. CONTAINERS	3
CUSTODY SEALS	(Y) N / NA
RECEIVED INTACT	Yes
BLUE ICE	Yes

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) X

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: [illegible] Time: 1653	Signature: Time:
Printed Name: [illegible] Date: 6-16-99	Printed Name: Date:
Company: [illegible]	Company:
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Francine Tonuo Time: 1035
Printed Name: Date:	Printed Name: Francine Tonuo Date: 6/18/99
Company:	American Environmental Network (NM), Inc.