

3R - 235

REPORTS

DATE:

2000



Certified Mail: #7000 1670 0012 7260 6739

February 26, 2001

Mr. William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Dr.
Santa Fe, NM 87504

RECEIVED

FEB 28 2001

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2000 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 sites that were identified during our pit closure project of 1994 / 1995.

Of the 32 reports (Volumes 1-4), EPFS hereby requests closure of six sites. The six 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". Four of the six sites were submitted in last years report and a decision has not been made on closure. The remaining two sites have been submitted in previous years and denied closure.

The Jaquez Com. C #1 and Jaquez Com. E #1 site is not included in with this years report and will be submitted by the required deadline of April 1, 2001

EPFS has also included for your information six Navajo sites in a separate binder.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott T. Pope'.

Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; Certified Mail # 7000 1670 0012 7260 6722
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), Certified Mail # 7000 1670 0012 7260 6715

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

El Paso Field Services
Pit Project Groundwater Report
Annual Report
Volume I

March 2001

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 62800398



EPFS GROUNDWATER PITS 2000 ANNUAL GROUNDWATER REPORT

SANDOVAL GAS COM A #1A
Meter/Line ID - 89620

SITE DETAILS

Legals - Twn: 30N Rng: 9W Sec: 35 Unit: C
NMOCD Hazard Ranking: 10 Land Type: FEDERAL
Operator: AMOCO PRODUCTION COMPANY

PREVIOUS ACTIVITIES

Site Assessment: May-94 Excavation: Sep-94 (50 cy) Soil Boring: May-95
Monitor Well: May-95 Re-Excavation: Jul-97 (504 cy) Re-Install MW: Aug-97
Quarterly Sampling Initiated: Apr-96 Annual Sampling Initiated: Apr-99

2000 ACTIVITIES

Annual Groundwater Monitoring – Annual groundwater monitoring was conducted during April of 2000.

SUMMARY TABLES

Groundwater analytical data is presented in Table 1. Copies of the laboratory data sheets and associated quality assurance/quality control data are presented as 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 2000.

DISPOSITION OF GENERATED WASTES

There were no wastes generated at this site in 2000.

ISOCONCENTRATION MAPS

An isoconcentration map was not generated for this site.

CONCLUSIONS

Analytical results of groundwater samples from MW-1 show levels of benzene, toluene and total xylenes above NMWQCC groundwater standards. Groundwater samples collected from MW-1 have been over standards for BTEX since sampling was initiated but appear to be decreasing each year.

Pertinent data from past groundwater reports include the following:

A formerly unlined pit is adjacent to MW-1 and may be an additional source. An attempt was made to install down-gradient monitor wells in December of 1995. Refusal was encountered at approximately 38 feet below ground surface and no groundwater was encountered. An attempt was made to collect groundwater samples with a Geoprobe and refusal was encountered at approximately 26 feet below ground surface on 4 sides of the pit.

EPFS GROUNDWATER PITS

2000 ANNUAL GROUNDWATER REPORT

RECOMMENDATIONS

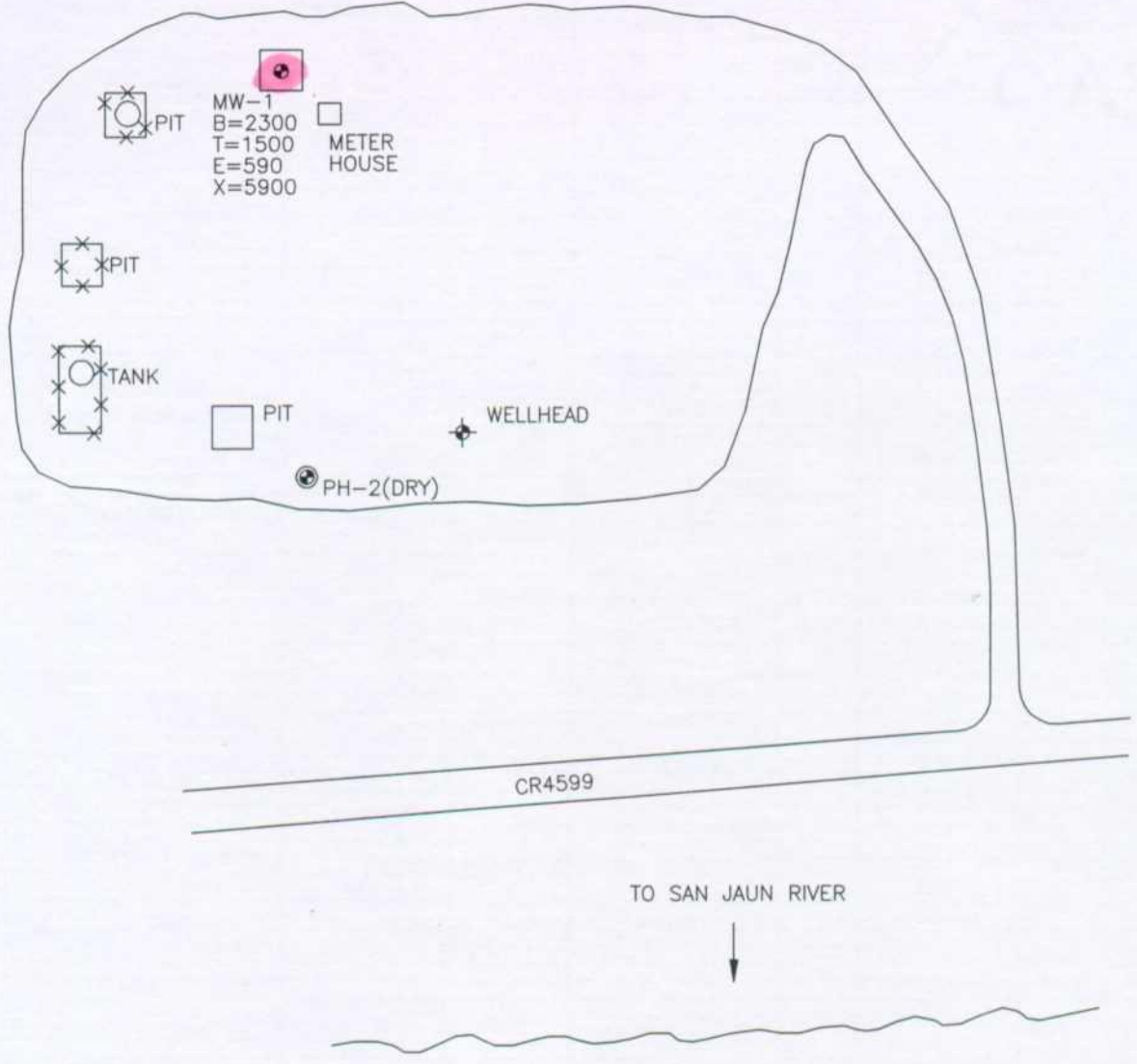
- EPFS proposes to conduct nutrient injection in MW-1 to enhance bioremediation and natural attenuation in the former pit.
- EPFS will conduct annual sampling at the site until BTEX constituents fall below New Mexico groundwater standards.
- After BTEX constituents fall below New Mexico Groundwater Standards, quarterly sampling will be conducted until analytical results show BTEX constituents are below New Mexico groundwater standards for four consecutive quarters.
- Following OCD approval for closure, MW-1 will be abandoned using OCD approved abandonment procedures.

Table 1

March 2001

Sample #	Meter / Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX (PPB)
SAN-0004-MW1	89620	Sandoval Gas Com A #1A	04/13/2000	1	Sample 1 - 5th Event	= 2,300	= 1,500	= 590	= 5,900	10,290

Sample 1 - Annual Sampling



LEGEND

- ⊙ PH-1 APPROXIMATE PIEZOMETER 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

NOT TO SCALE



COL. 628\00219AX-003



TITLE:
 SANDOVAL GAS COM A #1A
 METER 89620
 APRIL 13, 2000

DWN: TMM	DES.: LW
CHKD: LW	APPD: MN
DATE: 1/30/01	REV.: 0

PROJECT NO.: 62800219
 EPFS GW PITS
 FIGURE 1

ATTACHMENT 1

2000 GROUNDWATER ANALYTICAL



Well Number MW-01
 Serial No. WDPD-

WELL DEVELOPMENT AND PURGING DATA

Development
 Purging

Page 1 of 1

Project Name EPPS QUARTERLY SAMPLING Project Manager ROBERT THOMPSON Project No. 62800107
 Client Company EL PASO FIELD SERVICES Phase/Task No. 0301
 Site Name SANDOVAL GAS COM A #1A (89420) Site Address RURAL SAN JUAN Co.

Instruments Serial No. (if applicable)
 pH Meter HYDAC
 DO Monitor
 Conductivity Meter HYDAC
 Temperature Meter HYDAC
 Other

Water Volume Calculation
 Initial Depth of Well (feet) 38.32" TOR
 Initial Depth to Water (feet) 34.70' TOR
 Height of Water Column in Well (feet) 3.62'
 Diameter (inches): Well 4" Gravel Pack

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	<u>3.62'</u>	<u>2.36 x 3</u>	<u>7.08</u>
Gravel Pack			
Drilling Fluids			
Total			<u>7.08</u>

Development Criteria
 5 Casing Volumes of Water Removal
 Stabilization of Indicator Parameters
 Other

Methods of Development
 Pump Baller
 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 (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	Comments
						Increment	Cumulative					
<u>4/13/00</u>	<u>1337</u>	<u>X</u>				<u>2</u>	<u>2</u>	<u>22.0</u>	<u>6.78</u>	<u>4520</u>		<u>CLEAR</u>
<u>4/13/00</u>	<u>1342</u>	<u>X</u>				<u>2</u>	<u>4</u>	<u>21.2</u>	<u>6.78</u>	<u>4320</u>		<u>CLEAR</u>
<u>4/13/00</u>	<u>1354</u>	<u>X</u>				<u>2</u>	<u>6</u>	<u>21.5</u>	<u>6.82</u>	<u>4230</u>		<u>CLEAR</u>

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

Comments WELL BAILED DRY AT 6 GAL. LET RECOVER AND SAMPLED AT 1405.000# C2521

Developer's Signature(s) Robert Thompson Date 4/13/00 Reviewer _____ Date _____

PHILIP



Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401
(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 2521

Project Name EPF5 QUARTERLY SAMPLING		Type of Analysis and Bottle	
Project Number 62800107 Phase Task 0301		Total Number of Bottles	
Samplers R. THOMPSON		Name PINNACLE LABS	
Laboratory		Location ALBUQUERQUE AVE, N/A	
Sample Number (and depth)	Date	Time	Matrix
SAN-0004-MV01	4/13/00	1405	1120
Comments SANDOVMI GAS COMP # 4 89620			

Relinquished by:

Signature: *R. Thompson*
Date: 4/13/00
Time: 1600

Received By:

Signature: _____
Date: _____
Time: _____

Samples Iced:

Yes No

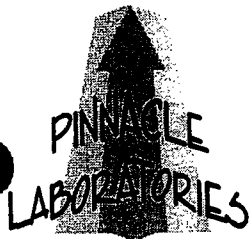
Preservatives (ONLY for Water Samples)

- Cyanide
- Sodium hydroxide (NaOH)
- Volatile Organic Analysis
- Hydrochloric acid (HCl)
- Metals
- Nitric acid (HNO3)
- TPH (418.1)
- Sulfuric acid (H2SO4)
- Other (Specify) _____
- Other (Specify) _____

Carrier: GREENWOOD LINES

Shipping and Lab Notes:

Airbill No. GIL1606650793



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

Pinnacle Lab ID number **004056**
April 24, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: Robert Thompson/LeAudra Stanley

On 04/14/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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.

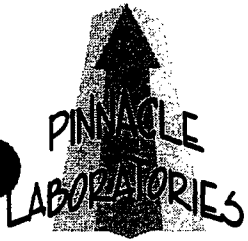
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

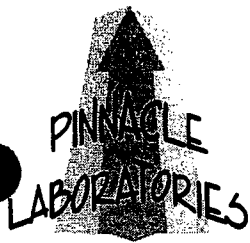
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 004056
PROJECT #	: 62800107	DATE RECEIVED	: 04/14/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 04/24/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	SAN-0004-MW01	AQUEOUS	04/13/00



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

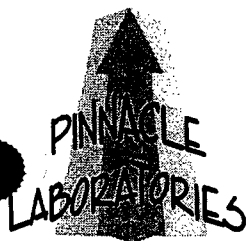
PINNACLE I.D.: 004056

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	SAN-0004-MW01	AQUEOUS	04/13/00	NA	04/15/00	10

PARAMETER	DET. LIMIT	UNITS	SAN-0004-MW01
BENZENE	0.5	UG/L	2300
TOLUENE	0.5	UG/L	1500
ETHYLBENZENE	0.5	UG/L	590
TOTAL XYLENES	0.5	UG/L	5900

BR. OMOFLUOROBENZENE (%) 100
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 004056
BLANK I. D.	: 041500	DATE EXTRACTED	: N/A
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 04/15/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

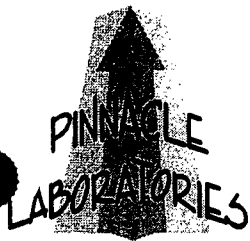
SURROGATE:

BROMOFLUOROBENZENE (%) 92

GATE LIMITS: (80 - 120)

CLIENT NOTES:

N/A



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 Albuquerque, New Mexico 87107
 Phone (505) 344-3777
 Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
 MSMSD

TEST : EPA 8021 MODIFIED
 MSMSD # : 041500
 CLIENT : PHILIP ENVIRONMENTAL
 PROJECT # : 62800107
 PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 004056
 DATE EXTRACTED : N/A
 DATE ANALYZED : 04/15/00
 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	21.0	105	20.7	104	1	(80 - 120)	20
TOLUENE	<0.5	20.0	23.6	118	22.6	113	4	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.9	115	22.2	111	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	69.2	115	66.4	111	4	(80 - 120)	20

TEST NOTES:
 N/A

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

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

