

3R - 238

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 dark ink, appearing to read 'Scott T. Pope', with a long horizontal flourish extending to the right.

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 II

March 2001

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 62800398



238

EPFS GROUNDWATER PITS 2000 ANNUAL GROUNDWATER REPORT

STANDARD OIL COM #1
Meter/Line ID - 70445

SITE DETAILS

Legals - Twn: 29N Rng: 9W Sec: 36 Unit: N
NMOCD Hazard Ranking: 30 Land Type: STATE
Operator: BURLINGTON RESOURCES

PREVIOUS ACTIVITIES

Site Assessment: May-94 Excavation: May-94 (60 cy) Soil Boring: Sep-95
Monitor Well: Sep-95 Quarterly Sampling Initiated: Nov-96

2000 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater monitoring continued through 2000.

Provided Operator with Site Data - EPFS has provided operator with all pertinent site data generated to date.

SUMMARY TABLES

Groundwater analytical data are presented in Table 1. Copies of the laboratory data sheets and 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 2000.

DISPOSITION OF GENERATED WASTES

There were no generated wastes at this site in 2000.

ISOCONCENTRATION MAPS

Isoconcentration maps were not generated for this site.

CONCLUSIONS

Analytical results of groundwater samples from MW-1 show levels of benzene and total xylenes above NMWQCC groundwater standards.

Pertinent data from past groundwater reports include the following:

Based on groundwater levels collected from temporary well point data, the groundwater flow trends to the northwest on this site. Groundwater samples collected from MW-1 have been in excess of standards for benzene and total xylenes since quarterly sampling was initiated. One sample collected from PZ-5, located up-gradient of MW-1, was in excess of standards for benzene at 10,400 ppb and total xylenes at 5,500 ppb, indicating a second source.

EPFS GROUNDWATER PITS

2000 ANNUAL GROUNDWATER REPORT

RECOMMENDATIONS

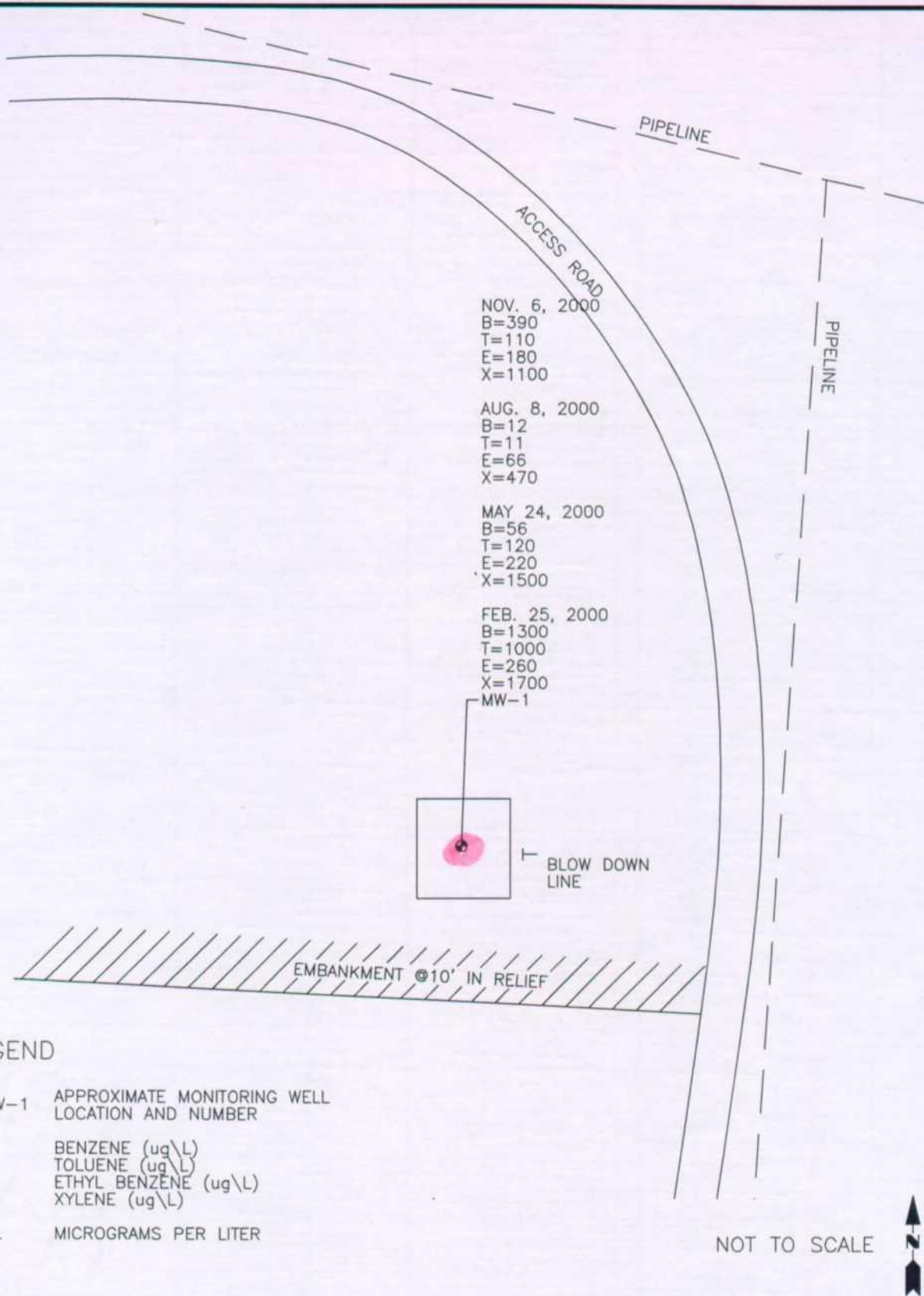
- EPFS proposes to continue quarterly monitoring at this site.
- EPFS proposes an upgradient and downgradient monitor well be installed to assist in isolating the source and determining the extent of impact.
- EPFS will continue to work with the operator at this site.

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)
STD-0002-MW1	70445	Standard Oil Com #1	02/25/2000	1	Sample 4 - 14th Quarter	= 1300	= 1000	= 260	= 1700	4260
STA-0005-MW1	70445	Standard Oil Com #1	05/24/2000	1	Sample 4 - 15th Quarter	= 56	= 120	= 220	= 1500	1896
STA-0008-MW1	70445	Standard Oil Com #1	08/08/2000	1	Sample 4 - 16th Quarter	= 12	= 11	= 66	= 470	559
STA-0011-MW1	70445	Standard Oil Com #1	11/06/2000	1	Sample 4 - 17th Quarter	= 390	= 110	= 180	= 1100	1780

Sample 4 - Quarterly Sampling



COL 628\002198D-003



TITLE:

STANDARD OIL COM #1
METER 70445
JANUARY 22, 2001

DWN:

TMM

DES.:

LW

PROJECT NO.:

62800219

CHKD:

LW

APPD:

MN

EPFS GW PITS

DATE:

1/31/01

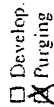
REV.:

0

FIGURE 1

ATTACHMENT 1

2000 GROUNDWATER ANALYTICAL



WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1

Project No. 62800107

Phase, Task No. 0301

Site Address RURAL SAN JUAN Co.

Water Volume Calculation : 22.33

Initial Depth of Well (feet) 32.84

Initial Depth to Water (feet) 19.69

Height of Water Column in Well (feet) 13.15

	Water Volume In Well	Gallons to be

Item	Cubic Feet	Gallons	Removed

Well Casing	8.58	8.58 x 3
-------------	------	----------

Gravel Pack			
-------------	--	--	--

Drilling Fluids.				
------------------	--	--	--	--

Total	25.74
-------	-------

~~Water Meter~~ EXTCH3

SECRET

☐ DO Monitor

~~EC~~ Conductivity Meter

V
0000000

0000000

☒ Temperature Meter

☐ Other

Water Disposal

UTZ Separatör

[illegible]

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

Comments

Developer's Signature(s) Kelly Padelle

Date 2-25-00

Reviewer RT Date 3/10/00



MAR 13

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

Pinnacle Lab ID number 002094
March 09, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: KELLY PADILLA

On 02/29/00 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.

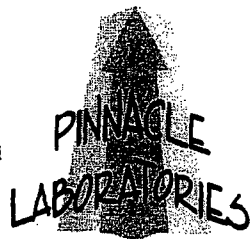
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

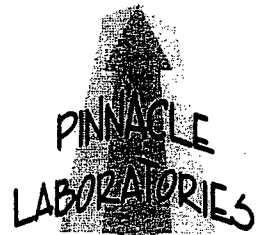
Enclosure



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

CLIENT : PHILIP ENVIRONMENTAL PINNACLE ID : 002094
PROJECT # : 62800107 DATE RECEIVED : 02/29/00
PROJECT NAME : EPFS QUARTERLY SAMPLING REPORT DATE : 03/08/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	LIN-0002-MW1	AQUEOUS	02/24/00
02	146-0002-MW1	AQUEOUS	02/24/00
03	169-0002-MW1	AQUEOUS	02/25/00
04	STD-0002-MW1	AQUEOUS	02/25/00
05	HAM-0002-MW1	AQUEOUS	02/25/00
06	TNR-0002-MW2	AQUEOUS	02/28/00
07	JAQ-0002-MW4	AQUEOUS	02/24/00
08	JAQ-0002-MW3	AQUEOUS	02/24/00



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GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 002094

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	LIN-0002-MW1	AQUEOUS	02/24/00	NA	03/02/00	20
02	146-0002-MW1	AQUEOUS	02/24/00	NA	03/02/00	50
03	169-0002-MW1	AQUEOUS	02/25/00	NA	03/02/00	20

PARAMETER	DET. LIMIT	UNITS	LIN-0002-MW1	146-0002-MW1	169-0002-MW1
BENZENE	0.5	UG/L	120	30	750
TOLUENE	0.5	UG/L	39	25	28
ETHYLBENZENE	0.5	UG/L	78	470	790
TOTAL XYLENES	0.5	UG/L	830	5000	1600

SURROGATE:

BROMOFLUOROBENZENE (%)

105

102

102

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 002094

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	STD-0002-MW1	AQUEOUS	02/25/00	NA	03/02/00	50
05	HAM-0002-MW1	AQUEOUS	02/25/00	NA	03/08/00	1
06	TNR-0002-MW2	AQUEOUS	02/28/00	NA	03/08/00	1

PARAMETER	DET. LIMIT	UNITS	STD-0002-MW1	HAM-0002-MW1	TNR-0002-MW2
BENZENE	0.5	UG/L	1300	130	2.6
TOLUENE	0.5	UG/L	1000	70	6.8
ETHYLBENZENE	0.5	UG/L	260	78	14
AL XYLENES	0.5	UG/L	1700	190	58

SURROGATE:

BROMOFLUOROBENZENE (%)

104

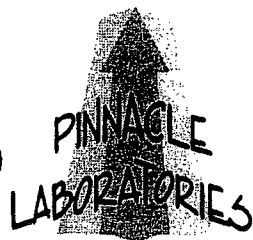
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97

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 002094

PROJECT NAME: FORT MONMOUTH SUPERFUND SITE						
SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	JAQ-0002-MW4	AQUEOUS	02/24/00	NA	03/02/00	1
08	JAQ-0002-MW3	AQUEOUS	02/24/00	NA	03/02/00	1

PARAMETER	DET. LIMIT	UNITS	JAQ-0002-MW4	JAQ-0002-MW3
BENZENE	0.5	UG/L	11	30
TOLUENE	0.5	UG/L	< 0.5	21
ETHYLBENZENE	0.5	UG/L	5.6	2.3
TOTAL XYLENES	0.5	UG/L	5.5	9.4

SURROGATE:

BROMOFLUOROBENZENE (%)

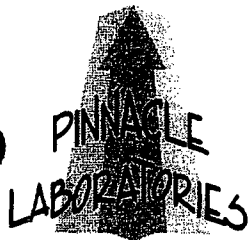
101

98

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 002094
BLANK I. D.	: 030100	DATE EXTRACTED	: N/A
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/01/00
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

PROGATE:
MOFLUOROBENZENE (%) 103
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



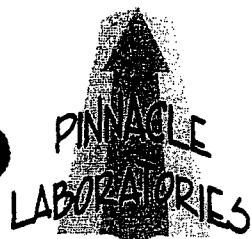
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Albuquerque, New Mexico 87107
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Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 002094
BLANK I. D.	: 030200	DATE EXTRACTED	: N/A
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/02/00
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 (%) 101
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 002094
BLANK I. D.	: 030800	DATE EXTRACTED	: N/A
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/08/00
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 (%)	97
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SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 030100
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 002094
DATE EXTRACTED : N/A
DATE ANALYZED : 03/01/00
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	21.8	109	21.9	110	0	(80 - 120)	20
TOLUENE	<0.5	20.0	20.4	102	20.0	100	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.2	111	22.0	110	1	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	62.1	104	62.9	105	1	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

Chain of Custody, Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2529

Relinquished by:

Received By:

Received By:		Signature		Date	Time
		<i>[Signature]</i>		5/25/00	1612

Samples Iced: ☒ Yes ☐ No		Carrier: 87-23-10-10-501-19	Airbill No. 6011606501-19
Preservatives (ONLY for Water Samples)		Shipping and Lab Notes:	
☐ Cyanide Sodium hydroxide (NaOH)			
☒ Volatile Organic Analysis Hydrochloric acid (HCl)			
☐ Metals Nitric acid (HNO ₃)			
☐ TPH (418.1) Sulfuric acid (H ₂ SO ₄)			
☐ Other (Specify) _____			
☐ Other (Specify) _____			



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

Pinnacle Lab ID number **005106**
May 31, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: Robert Thompson/LeAudra Stanley

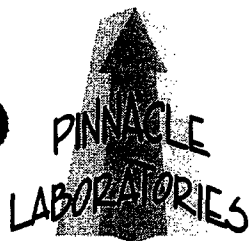
On 05/26/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

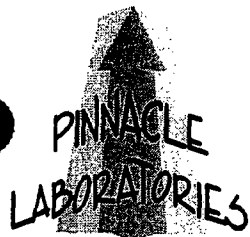
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 005106
PROJECT #	: 62800107	DATE RECEIVED	: 05/26/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 05/31/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	STA 0005-MW01	AQUEOUS	05/24/00



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 : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 005106

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	STA 0005-MW01	AQUEOUS	05/24/00	NA	05/26/00	5

PARAMETER	DET. LIMIT	UNITS	STA 0005-MW01
BENZENE	0.5	UG/L	56
TOLUENE	0.5	UG/L	120
ETHYLBENZENE	0.5	UG/L	220
TOTAL XYLENES	0.5	UG/L	1500

SURROGATE:
BROMOFLUOROBENZENE (%) 136*
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

* SAMPLE WAS RUN TWICE. SURROGATE IS HIGH DUE TO MATRIX INTERFERENCE.



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

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 005106
BLANK I. D.	: 052600	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 05/26/00
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

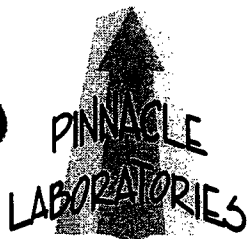
SURROGATE:
10FLUOROBENZENE (%)

102

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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Albuquerque, New Mexico 87107
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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 005106
MSMSD #	: 005101-04	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 05/26/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING	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	18.3	92	18.8	94	3	(80 - 120)	20
TOLUENE	<0.5	20.0	18.2	91	18.9	95	4	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.2	101	20.6	103	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	61.1	102	0	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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



Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2529

005106

[illegible]

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Quarles	5/25/20	1613	Quarles	5/26/20	1110

Samples Used: ☒ Yes ☐ No

CARRIER: GREYHOUND LINES

Airbus No. 6611601650749

Preservatives (ONLY for Water Samples)

- ☐ Cyanide ☐ Sodium hypochlorite (NaOCl)
☒ Volatile Organic Analysis ☐ Hydrochloric acid (HCl)
☐ Methane ☐ Nitric acid (HNO₃)
☐ TTH (418-1) ☐ Sulfuric acid (H₂SO₄)
☐ Other (Specify) _____
☐ Other (Specify) _____

Shipping and Lab Notes:

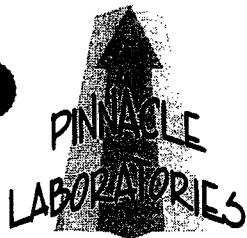
Rec'd @ 10:20

Chain of Custody Record

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

COC Serial No. C 2617

PE-176 4/95



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

Pinnacle Lab ID number **008039**
August 11, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/LEAUDRA STANLEY

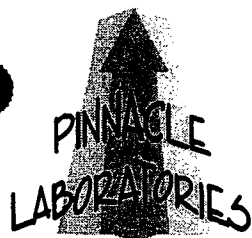
On 08/09/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

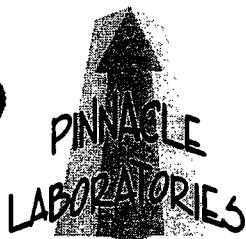
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 008039
PROJECT #	: 62800107	DATE RECEIVED	: 08/09/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 08/11/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	STA-0008-MW01	AQUEOUS	08/08/00



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GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 008039

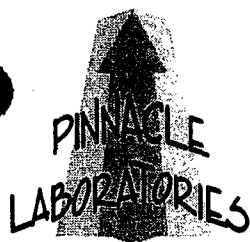
SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	STA-0008-MW01	AQUEOUS	08/08/00	NA	08/09/00	1

PARAMETER	DET. LIMIT	UNITS	STA-0008-MW01
BENZENE	0.5	UG/L	12
TOLUENE	0.5	UG/L	11
ETHYLBENZENE	0.5	UG/L	66
. XYLENES	0.5	UG/L	470

SURROGATE:
BROMOFLUOROBENZENE (%) 163*
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

* = HIGH SURROGATE DUE TO MATRIX INTERFERENCE.



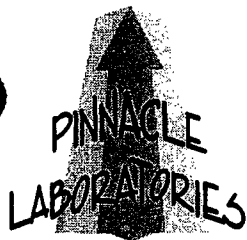
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Albuquerque, New Mexico 87107
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Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 008039
BLANK I. D.	: 080900	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 08/09/00
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

GATE:
BROMOFLUOROBENZENE (%) 97
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 080900
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 008039
DATE EXTRACTED : NA
DATE ANALYZED : 08/09/00
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	22.4	112	23.0	115	3	(80 - 120)	20
TOLUENE	<0.5	20.0	23.3	117	23.5	118	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.6	113	21.9	110	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	69.4	116	66.8	111	4	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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



Chain of Custody record

4000 Monroe Road
Farmington, NM 87401

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

008039

COC Serial No. C 2617

Project Name <i>EPES QUARTERLY SAMPLING</i>		Type of Analysis and Bottle		Total Number of Bottles	Comments
Project Number <i>62800107 Phase Task 0301</i>		BTEX 8021			
Samplers <i>J. WAGNON</i>		Lab ID# <i>907</i>			
Laboratory					
Name <i>PINNACLE LABS</i>					
Location <i>ALBUQUERQUE, NM</i>					
Sample Number (and depth)	Date	Time	Matrix		
<i>STA-008-MWD1</i>	<i>8/8/00</i>	<i>1210</i>	<i>H2O</i>	<i>2</i>	<i>X</i>
<i>STANDARD OIL COM#1 70445</i>					

Relinquished by:

Signature

Jean Wagner

Date

8/8/00

Time

1500

Received By:

Signature

Jean Wagner

Date

8/9/00

Time

0900

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: *GREYHOUND LINES*

Airbill No. *641606657090*

Shipping and Lab Notes:

Rec'd OK 6.1°C inside (1.2°C)

PHILIP

Chain of Custody record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2778

Project Name <u>EPFS quarterly Sampling</u>		Type of Analysis and Bottle		Comments <u>STANDARD DILUTION #1 (70445)</u>					
Project Number <u>62800107</u> Phase <u>Task 0301</u>		Total Number of Bottles							
Samplers <u>C-maez</u>	Name <u>PINNACLE</u>	Date	Time	Matrix					
	Location <u>ALBQ N.M.</u>								
Sample Number (and depth)	STA-0011-MW01	11-06-00	1339	H2O 2 X					
1-70445									

Relinquished by:

Signature

Date

Time

Signature

Date

Time

Received By:

Samples Iced: ☒ Yes ☐ No

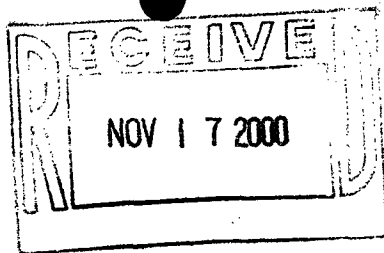
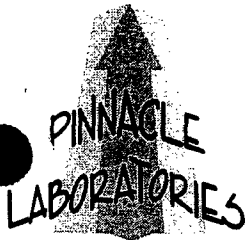
Preservatives (ONLY for Water Samples)

- ☐ Cyanide Sodium hydroxide (NaOH)
☐ Volatile Organic Analysis Hydrochloric acid (HCl)
☐ Metals Nitric acid (HNO3)
☐ TPH (418.1) Sulfuric acid (H2SO4)
☒ Other (Specify) HgCl2
☐ Other (Specify) _____

Carrier: Greyhound

Shipping and Lab Notes:

Airbill No.



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
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Pinnacle Lab ID number **011038**
November 15, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

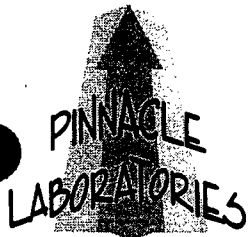
On 11/14/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

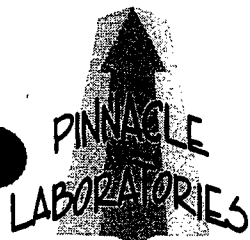
MR: jt

Enclosure



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CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 011038
PROJECT #	: 62800107	DATE RECEIVED	: 11/14/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 11/15/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	STA-0011-MW01	AQUEOUS	11/06/00



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

GAS CHROMATOGRAPHY RESULTS

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

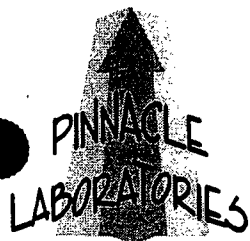
PINNACLE I.D.: 011038

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	STA-0011-MW01	AQUEOUS	11/06/00	NA	11/14/00	20

PARAMETER	DET. LIMIT	UNITS	STA-0011-MW01
BENZENE	0.5	UG/L	390
TOLUENE	0.5	UG/L	110
ETHYLBENZENE	0.5	UG/L	180
TOTAL XYLENES	0.5	UG/L	1100

SURROGATE:
BROMOFLUOROBENZENE (%) 118
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 011038
BLANK I. D.	: 111400	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 11/14/00
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 (%) 114
SURROGATE LIMITS: (80 - 120)
CH * NOTES:
N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 111400
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 011038
DATE EXTRACTED : NA
DATE ANALYZED : 11/14/00
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	18.0	90	17.7	89	2	(80 - 120)	20
TOLUENE	<0.5	20.0	19.9	100	19.5	98	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.3	107	20.7	104	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	62.5	104	60.6	101	3	(80 - 120)	20

CHEM NOTES:
N/A

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

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

Chain of Custody, Record

4000 Monroe Road
Farmington, NM 87401

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

011038

COC Serial No. C 2778

[illegible]

Relinquished by:

Received By:

[illegible]**Samples Iced:**☒ Yes ☐ No

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) HgCl₂
☐ Other (Specify) _____

Carrier: Greyhound

Shipping and Lab Notes:

Airbill No.

Rec'd @ 33°C