

3R - 190

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', written over a horizontal line.

Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOC, 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



190

EPFS GROUNDWATER PITS

2000 ANNUAL GROUNDWATER REPORT

HAMNER #9
Meter/Line ID - 97213

SITE DETAILS

Legals - Twn: 29N	Rng: 9W	Sec: 20	Unit: A
NMOCD Hazard Ranking: 30			Land Type: FEDERAL
Operator: AMOCO PRODUCTION COMPANY			

PREVIOUS ACTIVITIES

Site Assessment: May-94	Excavation: May-94 (70 cy)	Soil Boring: Aug-95
Monitor Well: Aug-95	Geoprobe: Oct-96	Quarterly Sampling Initiated: Nov-96
Additional Monitor Wells: Sep-99		

2000 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater samples were collected through 2000 for MW-1.

Monitor Well Completion - The temporary monitor wells drilled in 1999 were completed.

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 with groundwater elevations and gradients is presented as Figure 1.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

The temporary monitor wells, MW-2 and MW-3, were completed July 18, 2000. Revised well completion diagrams from the September 24, 1999 drilling are included as Attachment 2.

DISPOSITION OF GENERATED WASTES

There were no wastes generated at this site in 2000.

ISOCONCENTRATION MAPS

An isoconcentration map for benzene was generated and is included as Figure 2.

CONCLUSIONS

Analytical results of quarterly groundwater samples collected from MW-1 show all analytes below the NMWQCC groundwater standards in 2000, except benzene. Laboratory analyses of the groundwater samples from the downgradient monitor wells, MW-2 and MW-3, reveal no detectable levels of hydrocarbon constituents. Groundwater gradient trends west-southwest at this site (Figure 1).

EPFS GROUNDWATER PITS 2000 ANNUAL GROUNDWATER REPORT

RECOMMENDATIONS

- Quarterly sampling will continue at MW-1 until analytical results show hydrocarbon constituents are below New Mexico groundwater standards for four consecutive quarters.
- Monitor wells MW-2 and MW-3 will be sampled on an annual basis.
- Following OCD approval for closure, MW-1, MW-2, and MW-3 will be abandoned using OCD approved abandonment procedures.

EPFS Groundwater Pits
2000 Groundwater Report

Table 1

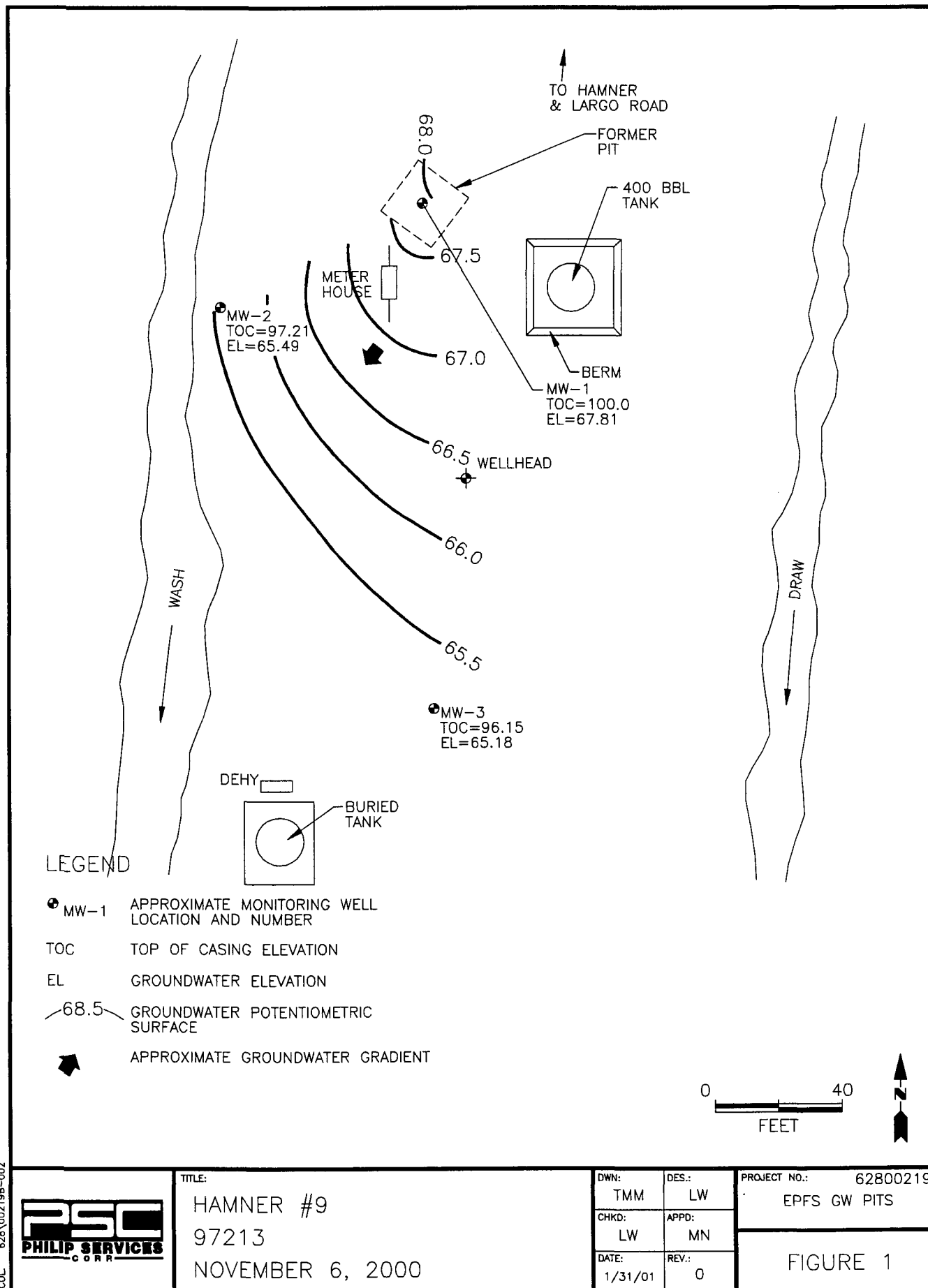
March 2001

Sample #	Meter / Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX (PPB)
HAM-0002-MW1	97213	HAMNER #9	02/25/2000	1	Sample 4 - 14th Quarter	= 130	= 70	= 78	= 190	468
HAM-0005-MW1	97213	HAMNER #9	05/24/2000	1	Sample 4 - 15th Quarter	= 110	= 130	= 56	= 200	496
HAM-0008-MW1	97213	HAMNER #9	08/01/2000	1	Sample 4 - 16th Quarter	= 120	= 39	= 80	= 210	449
HAM-0011-MW1	97213	HAMNER #9	11/06/2000	1	Sample 4 - 17th Quarter	= 84	= 120	= 56	= 190	450
HAM-0008-MW2	97213	HAMNER #9	08/28/2000	2	Sample 1 - 2nd Annual	< 0.5	< 0.5	< 0.5	< 0.5	ND
HAM-0008-MW3	97213	HAMNER #9	08/28/2000	3	Sample 1 - 2nd Annual	< 0.5	< 0.5	< 0.5	< 0.5	ND

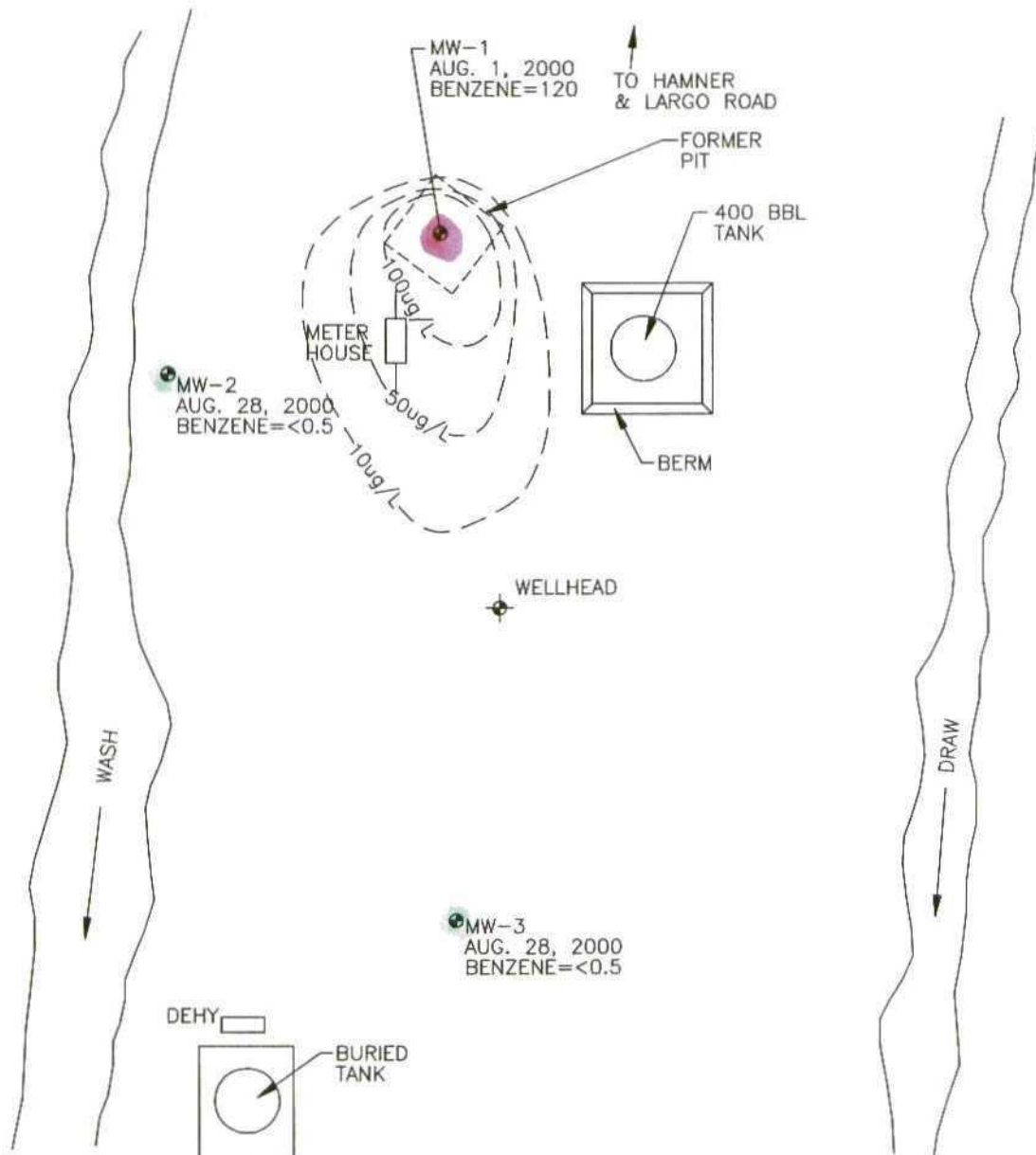
ND - No detectable levels

Sample 2 - Semi-annual Sampling

Sample 4 - Quarterly Sampling



COL 628\002198-002



LEGEND

- MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER
- B BENZENE (ug\L)
- ug\L MICROGRAMS PER LITER
- 68.5 GROUNDWATER POTENTIOMETRIC SURFACE

NOTE: Well locations are to scale, relative to each other. The surface features are not to scale.

0 40
FEET



COL 628\00219B1-02



TITLE:
HAMNER #9 - 97213
AUG. 28, 2000 ISOCONCENTRATION
MAP - BENZENE

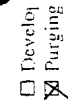
DWN: TMM	DES.: LW
CHKD: LW	APPD: MN
DATE: 2/20/01	REV.: 0

PROJECT NO.: 6280219
EPFS GW PITS

FIGURE 2

ATTACHMENT 1

2000 GROUNDWATER ANALYTICAL



WELL DEVELOPMENT AND PURGING DATA

Page _____ of _____

Project Manager
Robert T

Phase.Task No. 0301

Site Address RURAL SAN JUAN Co.

Instruments

Serial No. (If applicable)

Initial Depth of Well (feet)

Initial Depth to Water (feet) 32.05

Height of Water Column in Well (feet) **8.74**

Water Volume in Well	Gallons
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Item	Cubic Feet	Gallons	Removed
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Well Casing	274	571	1712
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Gravel Pack	5:14	5:11	5:11
-------------	------	------	------

Drilling fluids

10/11 1712

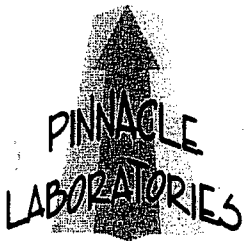
Water Disposal
KUTZ SEPARATOR

[illegible]

Comments After 10 GA's well Bailed Dry Let Set for 10 min Took Samples

Date 2-25-00

Reviewer RT Date 3/16/00



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

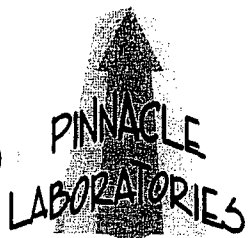


2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

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

PINNACLE ID : 002094
DATE RECEIVED : 02/29/00
REPORT DATE : 03/08/00

PIN	CLIENT DESCRIPTION	MATRIX	DATE 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



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.: 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	29
ETHYLBENZENE	0.5	UG/L	78	470	790
AL XYLENES	0.5	UG/L	830	5000	1600

SURROGATE:

BROMOFLUOROBENZENE (%)

SURROGATE LIMITS (80 - 120)

105

102

102

CHEMIST NOTES:

N/A



2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
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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: PETROLEUM QUANTIFICATION CAMPUS						
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

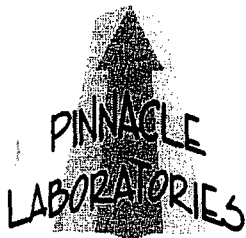
100

97

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

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

PINNACLE I.D.: 002094

SAMPLE	DATE	DATE	DATE	DIL.
ID. #	SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	02/24/00	NA	03/02/00	1
08	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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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

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:
10FLUOROBENZENE (%) 103
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A

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

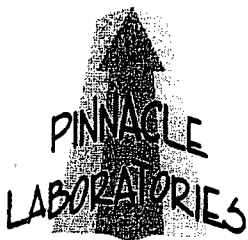
PINNACLE
LABORATORIES

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

PROGATE:
BROMOFLUOROBENZENE (%) 101
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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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.	: 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
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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 # : 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 2497

062094

Project Name EPFS QUARTERLY SAMPLING				Type of Analysis and Bottle	Total Number of Bottles	Lab ID#	BTEX 8021	Lab ID#	Comments
Project Number 62800107 Phase Task 0301									
Samplers KELLY PADILLA									
Laboratory NAME PINNACLE LABS									
Location ALBUQUERQUE, NM									
Sample Number (and depth)	Date	Time	Matrix						
LIN-0002-MW1	2/24/00	1410	H ₂ O	2	X	01			94967
146-0002-MW1	2/24/00	1705	H ₂ O	2	X	02			LD146
169-0002-MW1	2/25/00	1350	H ₂ O	2	X	03			LD169
STD-0002-MW1	2/25/00	1545	H ₂ O	2	X	04			70449
HAM-0002-MW1	2/25/00	1630	H ₂ O	2	X	05			97213
TNR-0002-MW2	2/28/00	1020	H ₂ O	2	X	06			71676
JAQ-0002-MW4	2/24/00	1010	H ₂ O	2	X	07			CORN FIELD
JAQ-0002-MW3	2/24/00	1110	H ₂ O	2	X	08			CORN FIELD

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Kelly Padilla	2-28-00	1135	Katherine J. Jurek	2/29/00	1015

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) _____☐ Other (Specify) _____
☐ Other (Specify) _____

Carrier: CRY HOUND

Shipping and Lab Notes:

SEND ORIGINAL ANALYTICAL RESULTS TO EL PASO FIELD SERVICES.

SENDING A COPY OF THE RESULTS TO THE ADDRESS ABOVE.

Void @ 14°C * No sample for PAN & NO3 - ~~2/29/00~~ 2/29/00

Airbill No. 217120W50419

Well Number MW-01Serial No. WDPD-Project Name EPES QUARTERLY SAMPLING

Client Company: EL PASO FIELD SERVICES

Site Name HAMNER NO. 9 (97213)

Development Criteria

~~X~~ 3 to 5 Casing Volumes of Water Removal

☐ Stabilization of Indicator Parameters

☐ Other

Methods of Development

Pump	Bailer
1	1
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100	100

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other _____

Water Removal Data

[illegible]

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

Comments WELL BAILED DRY AT APPROX. 8'. LET RECHARGE + SAMPLED FOR BTEX

AT 1110.

Developer's Signature(s) Jan Wagner

Date 5/24/00

Reviewer RT

25/00

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2531

[illegible]

Relinquished by:

Received By:

[illegible]

Samples Iced: ☒ Yes ☐ No

Samples Iced: ☒ Yes ☐

Preservatives (ONLY for Water Samples)

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: 68 Express
Shipping and Lab Notes:

Carrier: *ABORIGINAL* *UNICEF*

Airbill No. 611601W-5A749



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

Pinnacle Lab ID number **005108**
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	: 005108
PROJECT #	: 62800107	DATE RECEIVED	: 05/26/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 05/31/00
WIN			DATE
D. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	HAM 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.: 005108

SAMPLE			DATE	DATE	DATE	DIL.
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
1	HAM 0005-MW01	AQUEOUS	05/24/00	NA	05/26/00	20

PARAMETER	DET. LIMIT	UNITS	HAM 0005-MW01
BENZENE	0.5	UG/L	110
TOLUENE	0.5	UG/L	130
ETHYLBENZENE	0.5	UG/L	56
TOTAL XYLENES	0.5	UG/L	200

SURROGATE LIMITS (80 - 120)
BROMOFLUOROBENZENE (%) 104

CHEMIST NOTES:
N/A



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.	: 005108
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		

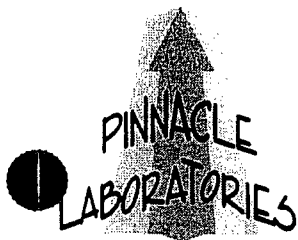
PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 102

SURROGATE 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 # : 005101-04
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 005108
DATE EXTRACTED : NA
DATE ANALYZED : 05/26/00
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	18.3	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 2531

005108

[illegible]

Received By:

Signature	Date	Time	Signature	Date	Time
Guanabana	5/25/20	1612	Manuel Junior	5/26/20	1710

Relinquished by:

Signature	Date	Time	Signature	Date	Time
Guanabana	5/25/20	1612	Manuel Junior	5/26/20	1710

Carrier: GREYHOUND LINES

Airtel No. GLI/60/4996/96749

Carrier: 6 REY HQ 00

Samples Used: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

☐ Consolidate	Sodium hydrazide (Na-OH)
.....	

☐	Lipid emulsion	Succinylcholine (Nujin) 10 mg/ml
☒	Volatile Oremic Anesthesia	Hydrochloric acid (HCl)

☒ Volatile organic compounds (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

DATE 02-28-2003

☐ TPM (418.1)	Sulfuric acid (H ₂ SO ₄)
--------------------------------------	---

☐ Other (Specify) _____☐ Other (Specify) _____

Rec'd @ Vic

WELL DEVELOPMENT AND PURGING DATA

Well Number MW-01

Serial No. WDPD-

Page of

Project Name EPFS Quarterly Sampling

Project Manager R. Thompson

Project No. 62800107

Client Company EPFS

Site Address RURAL San Juan Co

Phase.Task No. 0301

Site Name *Hanner* #9 (97213)

Development Criteria

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

Water Volume Calculation

water volume calculation
Initial Depth of Well (feet) 40.88 tor
Initial Depth to Water (feet) 32.08 tor
Height of Water Column in Well (feet) 8.8
Diameter (inches): Well 4 Gravel Pack

4 Gravel Pack

Methods of Development

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

Water Disposal

KUTZ SEPARATOR, BLOOMFIELD, NM

Water Removal Data

[illegible]

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

Comments	Bailed dry at 10 gal. let recharge for 10 min, sampled at
----------	---

2157

Developer's Signature(s) Jose Wagner

Date 8/1/00

Reviewer

Date:

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2613

Project Name		Project Number		Phase . Task		Samplers		Laboratory		Sample Number (and depth)		Date		Time		Matrix		Total Number of Bottles		Type of Analysis and Bottle		Comments			
EPES QUARTERLY SAMPLING		6280007		0301		J. WAGNON		PINNACLE LABS		ALBUQUERQUE, NM		HAM-0008-MW01		8/1/00		1417		H2O		2		X		Name (#9 97513)	

Relinquished by:

Received By:

	Signature	Date	Time	Signature	Date	Time
	Jens Wagoner	8/4/09	6:15			

Samples Iced:

☒ Yes ☐ No

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

Carrier: GLX

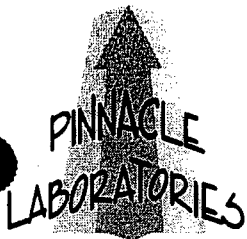
Carrier: 6666666666666666

Airbill No. GLT 11001065-1080

Shipping and Lab Notes:

Preservatives (ONLY for Water Samples)

☐ 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 008024
August 08, 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

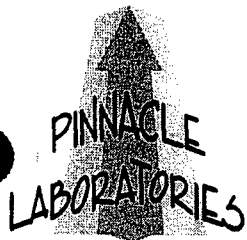
On 08/04/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

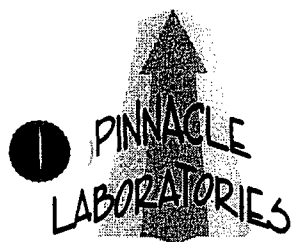
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 008024
PROJECT #	: 62800107	DATE RECEIVED	: 08/04/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 08/08/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	HAM-0008-MW01	AQUEOUS	08/01/00



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.: 008024

SAMPLE	DATE	DATE	DATE	DIL.		
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0008-MW01	AQUEOUS	08/01/00	NA	08/07/00	40

PARAMETER	DET. LIMIT	UNITS	HAM-0008-MW01
BENZENE	0.5	UG/L	120
TOLUENE	0.5	UG/L	39
ETHYLBENZENE	0.5	UG/L	80
TOTAL XYLENES	0.5	UG/L	210

SURROGATE:
BROMOFLUOROBENZENE (%) 103
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



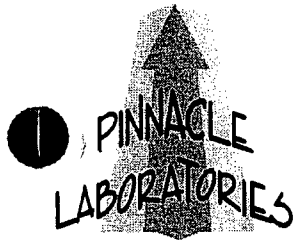
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 008024
BLANK I. D.	: 080700	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 08/07/00
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 (%) 93
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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 # : 080700
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 008024
DATE EXTRACTED : NA
DATE ANALYZED : 08/07/00
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	19.0	95	20.1	101	6	(80 - 120)	20
TOLUENE	<0.5	20.0	19.6	98	20.7	104	5	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.1	101	20.5	103	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	63.1	105	3	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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



Chain of Custody Record

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

COC Serial No. C 2613

Project Name EPFS QUARTERLY SAMPLING		Type of Analysis and Bottle		Total Number of Bottles	Comments						
Project Number 6280007 Phase Task 0321		BTEX 8021									
Samplers J. WAGNON											
Laboratory											
Name PINNACLE LABS											
Location ALBUQUERQUE, NM											
Sample Number HAM-0008-MW018	Date 8/1/00	Time 1417	Matrix H2O	2	X						
Handwritten signature and date across the grid											

Relinquished by:

Received By:

Signature <i>J. Wagon</i>	Date 8/4/00	Time 0915	Signature <i>[Signature]</i>	Date 8/4/00	Time 1730
------------------------------	-----------------------	---------------------	---------------------------------	-----------------------	---------------------

Samples Iced: ☒ Yes ☐ No	Carrier: GREYHOUND LINES	Airbill No. GLI1600651080
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) _____		
Shipping and Lab Notes: Temp 2.3		

PHILIP

Chain of Custody, Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2779

Project Name		Project Number		Samplers		Laboratory		Sample Number (and depth)		Date		Time		Matrix		Total Number of Bottles		Type of Analysis and Bottle		Comments	
EpFS Quarterly Sampling		G2800107 Phase 1 Task 0301		C. Maez		PENNACLE		HAM-001-MW01		11-06-00		1540		H ₂ O		2		1570		HANMER #9 (97213)	

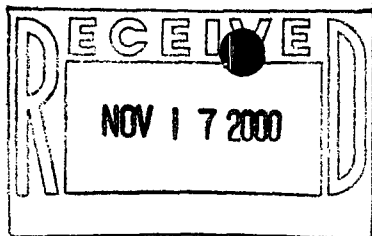
Relinquished by:

Signature	Date	Time	Signature	Date	Time
Chas. A. May	11-13-00	16:30			

Received By:

Samples Iced: ☒ Yes ☐ No		Carrier: Greyhound		Airbill No.	
Preservatives (ONLY for Water Samples)		Shipping and Lab Notes:			
☐ Cyanide					
☐ Volatile Organic Analysis					
☐ Metals					
☐ TPH (418.1)					
☒ Other (Specify) H ₂ SO ₄					
☐ Other (Specify)					

PINNACLE
LABORATORIES



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

Pinnacle Lab ID number **011039**
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.

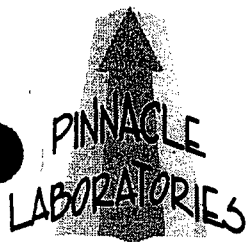
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

A handwritten signature in black ink, appearing to read "H. Mitchell Rubenstein".

H. Mitchell Rubenstein, Ph. D.
General Manager

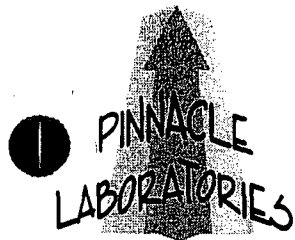
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 011039
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	HAM-0011-MW01	AQUEOUS	11/06/00



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

GAS CHROMATOGRAPHY RESULTS

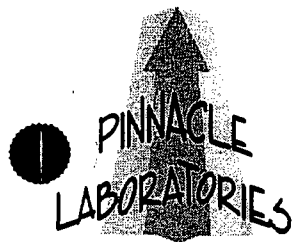
TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 011039

SAMPLE		DATE		DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0011-MW01	AQUEOUS	11/06/00	NA	11/14/00	10
PARAMETER		DET. LIMIT	UNITS	HAM-0011-MW01		
BENZENE		0.5	UG/L	84		
TOLUENE		0.5	UG/L	120		
ETHYLBENZENE		0.5	UG/L	56		
TOTAL XYLENES		0.5	UG/L	190		

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

CHEMIST NOTES:
N/A



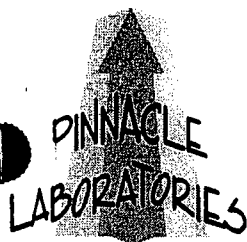
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 011039
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)
C. NOTES:
N/A



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 # : 111400
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 011039
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

CHEMIST NOTES:
N/A

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

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 2779

011039

Project Name <u>EpFS Quarterly Sampling</u>		Type of Analysis and Bottle		Total Number of Bottles	BTEX 8021	Lab ID # 106920	Comments
Project Number <u>62800107 Phase 1 Task 0301</u>							
Samplers <u>C-maez</u>							
Laboratory							
Name <u>PINNACLE</u>							
Location <u>ALBA NM</u>							
Sample Number (and depth)	Date	Time	Matrix				
<u>HAM-001-MW01</u>	<u>11-06-00</u>	<u>1540</u>	<u>H₂O</u>	<u>2</u>	<u>X</u>	<u>01</u>	<u>HAM/ER #9 (97213)</u>

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Chris A. May	11-13-00	16 30	Janine J. Jura	11/14/00	0920

Samples Iced:Yes ☐ No ☐

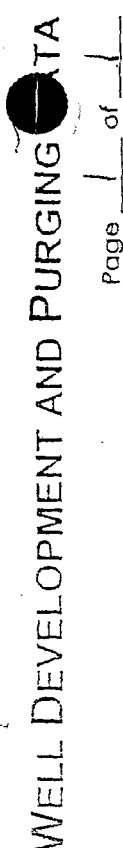
Carrier: Greyhound

Airbill No.**Preservatives (ONLY for Water Samples)**

Shipping and Lab Notes:

☐ 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) _____

Rec'd @ 3.30



Project Name EPFS QUARTERLY SAMPLING Project Manager R. Thompson Project No. 62800107
Client Company EPFS Site Address RURAL SAN JUAN CO. Phase Task No. 0301
Site Name Hammer (97213)

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal

☒ Stabilization of Indicator Parameters

☐ Other

Methods of Development

☐ Pump

☐ Centrifugal

☒ Bottom Valve

☐ Submersible

☐ Double Check Valve

☐ Peristaltic

☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 36.32 TOR

Initial Depth to Water (feet) 31.65 TOR

Height of Water Column in Well (feet) 4.67

Diameter (inches): Well 2" Gravel Pack

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	<u>4.67</u>	<u>0.76 X 3</u>	<u>2.28</u>
Gravel Pack			
Drilling Fluids			
Total			<u>2.28</u>

Instruments

☒ pH Meter

☐ DO Monitor

☒ Conductivity Meter

☒ Temperature Meter

☐ Other

Serial No. (if applicable)

HYDAC

HYDAC

HYDAC

Water Disposal

KUTZ SEPARATOR BLOOM FIELD

Water Removal Data

[illegible]

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

Comments	Sampled for BTEX at 1157.		
Developer's Signature(s)	Date	BT	Date
Jean Wagner	8/28/00		8/29/00

Project Name EPFS Quarterly Sampling

Project Manager, R Thompson

Project No. 62800107

Client Company EPFS Phase Task No. 0301

Site Name Hamner (97213)

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 38.12

Initial Depth to Water (feet) 30.96 13.1

Height of Water Column in Well (feet) 2.18Diameter (inches): Well 2" Gravel Pack

Methods of Development

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

Instruments

20

☒ pH meter

☐ DO Monit

De

☒ Conductivity Meter☒ Temperature Meter

0
0
E
6.
5
7
5
0
5
0
F

☐ Other

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met

Comments	Sampled for BTEX at 12.32.
----------	----------------------------

Needs of the city

Developer's Signature(s) John Wagner

Date 8-28-00

Reviewer RT Date 8/29/00

Chain of Custody Record

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

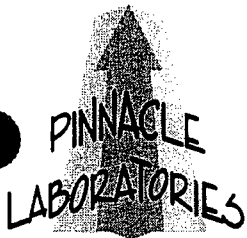
COC Serial No. C 2651

Relinquished by:

Received By:

Transference of:		Received By:				
	Signature	Date	Time	Signature	Date	Time
	<i>Jean Wagner</i>	8/28/00	1623			

Samples Iced: ☒ Yes ☐ No Preservatives (ONLY for Water Samples) ☐ 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) _____	Carrier: <i>600110000 LINES</i> Airbill No. <i>601160 6918535</i> Shipping and Lab Notes:
---	--



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

Pinnacle Lab ID number **008103**
August 30, 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

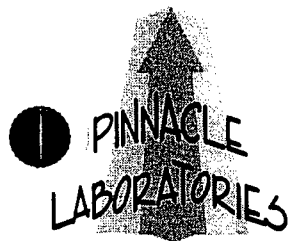
On 08/29/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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	: 008103
PROJECT #	: 62800107	DATE RECEIVED	: 08/29/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 08/30/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	HAM-0008-MW03	AQUEOUS	08/28/00
02	HAM-0008-MW02	AQUEOUS	08/28/00
03	TRIP BLANK	AQUEOUS	08/28/00



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.: 008103

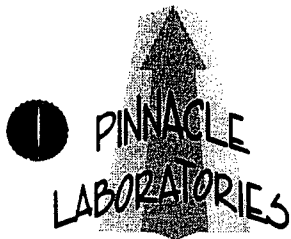
RESULTS						
PERFORMANCE SUMMARY						
SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0008-MW03	AQUEOUS	08/28/00	NA	08/29/00	1
02	HAM-0008-MW02	AQUEOUS	08/28/00	NA	08/29/00	1
03	TRIP BLANK	AQUEOUS	08/28/00	NA	08/29/00	1

PARAMETER	DET. LIMIT	UNITS	HAM-0008-MW03	HAM-0008-MW02	TRIP BLANK
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
XYLENES	0.5	UG/L	< 0.5	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)	99	100	103
SURROGATE LIMITS (80 - 120)			

CHEMIST NOTES:
N/A



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

Page 1

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 008103
BLANK I. D.	: 082900	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 08/29/00
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:

PERFLUOROBENZENE (%)

97

CONTROL LIMITS:

(80 - 120)

CHEMIST NOTES:

N/A

ATTACHMENT 2

**MONITOR WELL COMPLETION
RECORDS**

MONITORING WELL INSTALLATION RECORD

Environmental Services Corp.
 1/2 Mile Road
 P.O. Box 87401
 (505) 326-2262 FAX (505) 326-2388

Borehole # 1
 Well # MW2
 Page 2 of 2

Project Name EPFS GROUNDWATER

Project Number 62800 Phase
 Project Location HAMNER #9

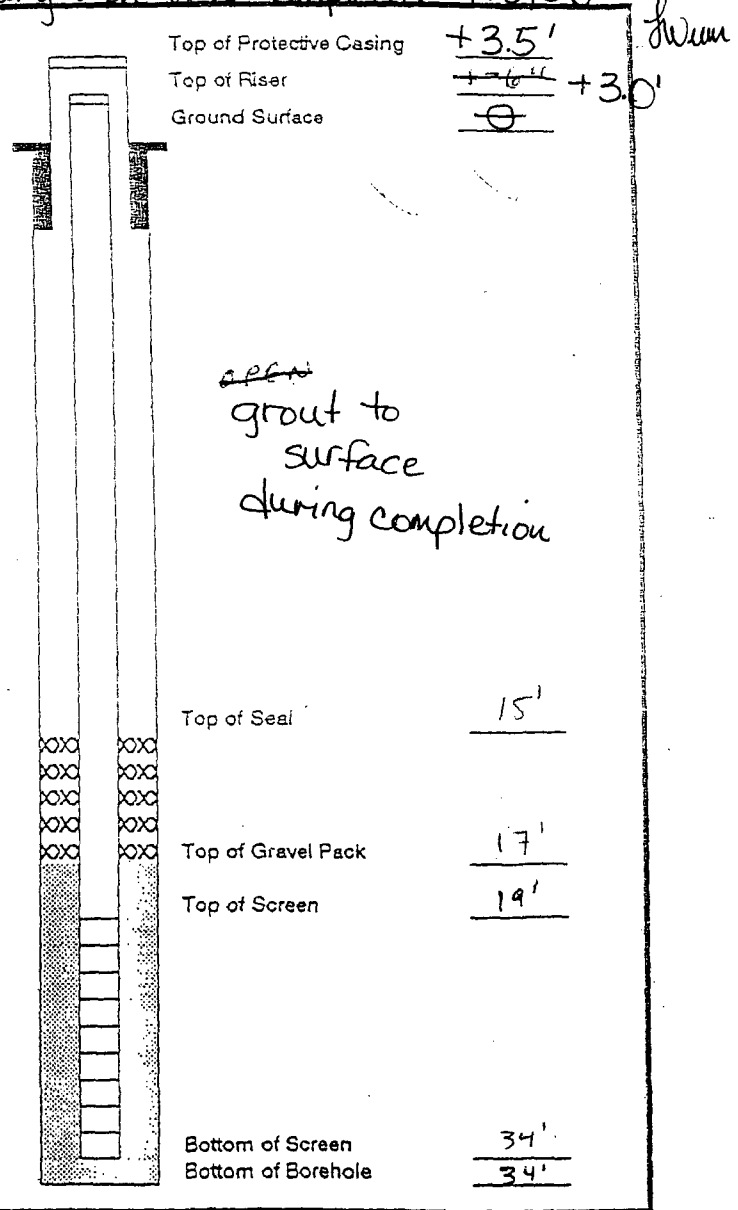
Elevation
 Well Location T29N R9W S20A
 GWL Depth 29.31'
 Installed By K. PADILLA & D. PADILLA

On-Site Geologist C. CULLICOTT
 Personnel On-Site F. PADILLA & D. PADILLA
 Contractors On-Site
 Client Personnel On-Site

Date/Time Started 9/24/99 8:10 am
 Date/Time Completed 9/24/99 10:30 am

NOTE - 97213 Temporary well was completed 7/18/00

Depths in Reference to Ground Surface		
Item	Material	Depth
Top of Protective Casing		+3.5
Bottom of Protective Casing		+1.5
Top of Permanent Borehole Casing		+3.0
Bottom of Permanent Borehole Casing		-34
Top of Concrete		0
Bottom of Concrete		0
Top of Grout		0
Bottom of Grout		15
Top of Well Riser	2"	+1'
Bottom of Well Riser	2"	19'
Top of Well Screen	2"	19'
Bottom of Well Screen	2"	34'
Top of Peltonite Seal	BENT.	15'
Bottom of Peltonite Seal	CHIPS	19'
Top of Gravel Pack	CO	17'
Bottom of Gravel Pack	SAND	34'
Top of Natural Cave-In		34'
Bottom of Natural Cave-In		34'
Top of Groundwater		29.31'
Total Depth of Borehole		34'



Comments: INITIAL DTW 29.37' DTW 12:30 29.31' DTW AFTER BAILING 29.85' 1/2
5 gallons removed 12:35-12:55
WELL IS GOOD PRODUCER Geologist Signature Carly Cullcott
WATER IS TURBID W/ BROWN/TAN
SUSPENDED SEDS
NO SKIFFEN OR ODOR

MONITORING WELL INSTALLATION RECORD

Environmental Services Corp.
New Mexico 87401
326-2262 FAX (506) 326-2388

Borehole # 2
Well # MW3
Page 2 of 2

Project Name EPFS GROUNDWATER

Project Number 628000 Phase
Project Location HANNER #9

On-Site Geologist C. CULLICOTT
Personnel On-Site K. PADILLA & D. PADILLA
Contractors On-Site
Client Personnel On-Site

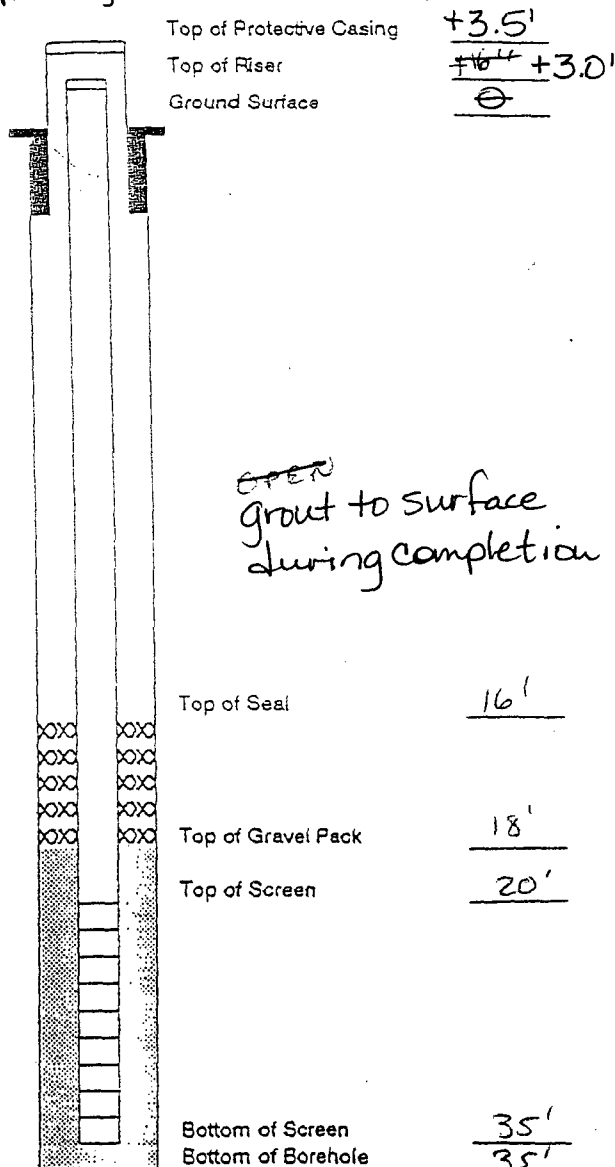
Location T29N R9W S20A
Well Depth
Installed By K. PADILLA & D. PADILLA

Date/Time Started 9/24/99 10:40am
Date/Time Completed 9/24/99 1:15pm

meter 97213 Temporary well was completed 7/18/00.

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		+3.5
Bottom of Protective Casing		-1.5
Top of Permanent Borehole Casing		+3.0
Bottom of Permanent Borehole Casing		-35
Top of Concrete		-
Bottom of Concrete		0
Top of Grout		0
Bottom of Grout		-16
Top of Well Riser	2"	+3
Bottom of Well Riser	2"	20'
Top of Well Screen	2"	20'
Bottom of Well Screen	2"	35'
Top of Peltonite Seal	BENT.	16'
Bottom of Peltonite Seal	CHIPS	18'
Top of Gravel Pack	CO	18'
Bottom of Gravel Pack	SAND	35'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		28.25'
Total Depth of Borehole		35'



Notes: DTW 28.25' 1:15 DTW 29.55' AFTER BAILING 1:40
5 gallons removed 1:20-1:40 WELL IS GOOD PRODUCER

WATER MODERATELY
TURBID AFTER 2 gal
removed, much less suspended
sed than MW2. WATER HAD NO ODOOR OR TASTE

Geologist Signature

Cathy Cullicott