

3R - 186

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', written over a horizontal line.

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 III

March 2001

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 62800398



186

EPFS GROUNDWATER PITS

2000 ANNUAL GROUNDWATER REPORT

HAMMOND #41 A
Meter/Line ID - 89894

SITE DETAILS

Legals - Twn: 27N	Rng: 8W	Sec: 25	Unit: O
NMOCD Hazard Ranking: 40		Land Type: FEDERAL	
Operator: R & G DRILLING COMPANY			

PREVIOUS ACTIVITIES

Site Assessment: Jun-94	Excavation: Jul-94 (250 cy)	Soil Boring: Jul-95
Geoprobe: Nov-96	Re-Excavation: Mar-97 (1,140 cy)	Monitor Well: May-97
Quarterly Sampling Initiated: Jun-97		
ORC Nutrient Injection: Jul-98		
Additional Monitor Wells: Sep-99		

2000 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater monitoring continued through 2000 for MW-1.

Monitor Well Completion - A temporary monitor well installed in 1999 was completed in July 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

Site maps with the groundwater elevations and gradients are presented as Figures 1 and 2 for the last two quarters of 2000.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

The temporary monitor wells, MW-2 and MW-3, were completed July 18, 2000. Revised well completion diagrams for MW-2 and MW-3 from the September 10, 1999 drilling is included as Attachment 2.

DISPOSITION OF GENERATED WASTES

There were no wastes generated at this site in 2000.

ISOCONCENTRATION MAPS

An isoconcentration map was generated for benzene and is included as Figure 3.

CONCLUSIONS

Analytical results of groundwater samples from MW-1 show levels of benzene at or above New Mexico groundwater standards. On June 9, 2000 a groundwater sample from MW-1 showed the benzene concentration at 290 parts per billion. Another groundwater sample taken from MW-1 on December 5, 2000 revealed benzene concentrations reduced to only 10 parts per billion. The

EPFS GROUNDWATER PITS 2000 ANNUAL GROUNDWATER REPORT

reduction in benzene concentrations demonstrates a 96.5% decrease in benzene over a six-month period, which is attributed to natural attenuation.

Analytical results of groundwater samples collected from monitor well MW-2 are below New Mexico groundwater standards for all BTEX constituents except benzene. Analytical results of groundwater samples collected from MW-3 show no detectable levels for all analytes. Based on groundwater elevations observed in monitor wells MW-1, MW-2, and MW-3 the groundwater gradient is to the north-northwest.

RECOMMENDATIONS

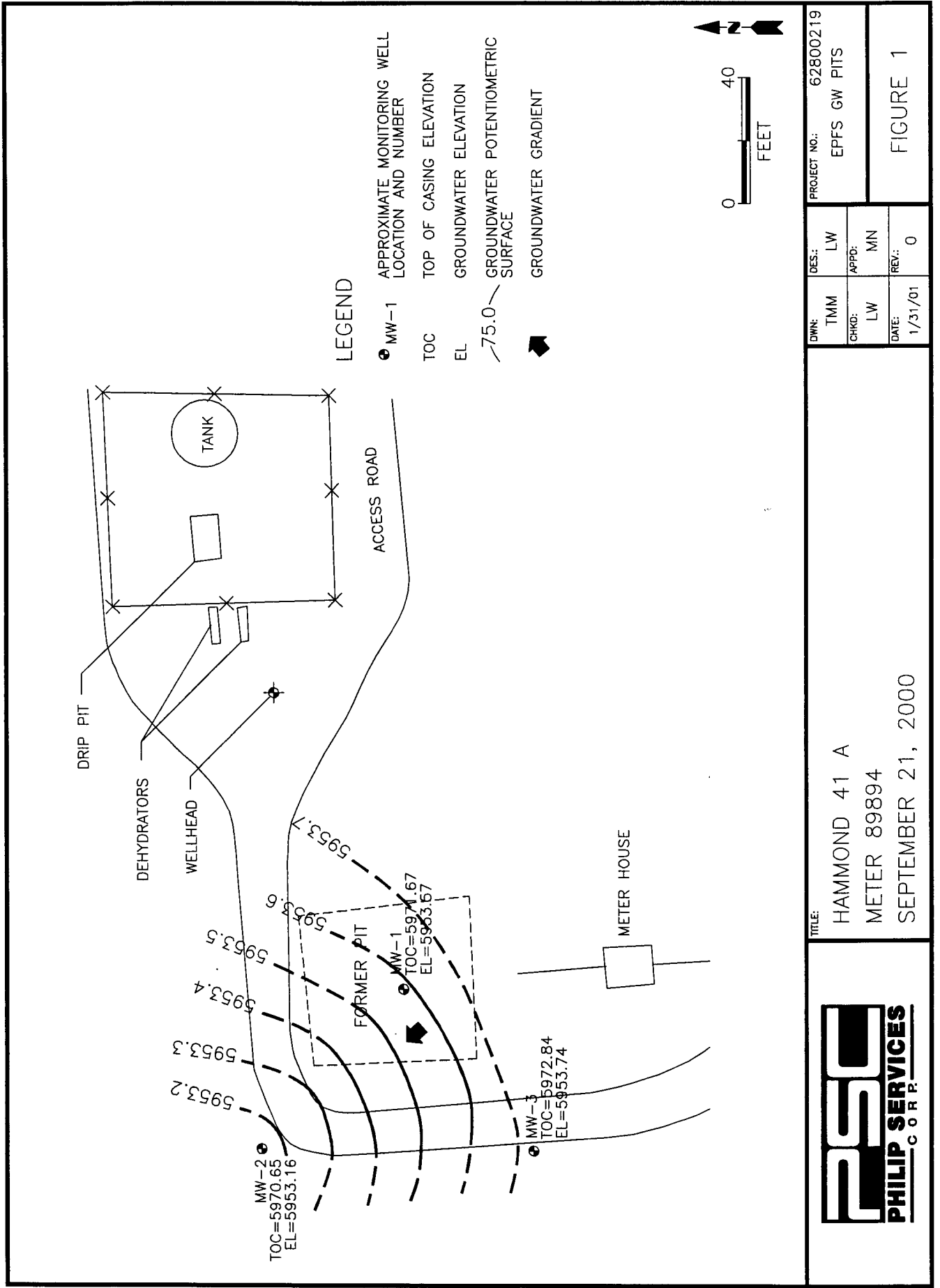
- Quarterly sampling for MW-1 and MW-2 until analytical results show hydrocarbon constituents are below New Mexico Groundwater Standards for four consecutive quarters.
- Annual groundwater sampling of MW-3.
- Following OCD approval for closure, all monitoring wells will be abandoned using OCD approved abandonment procedures.

Table 1

March 2001

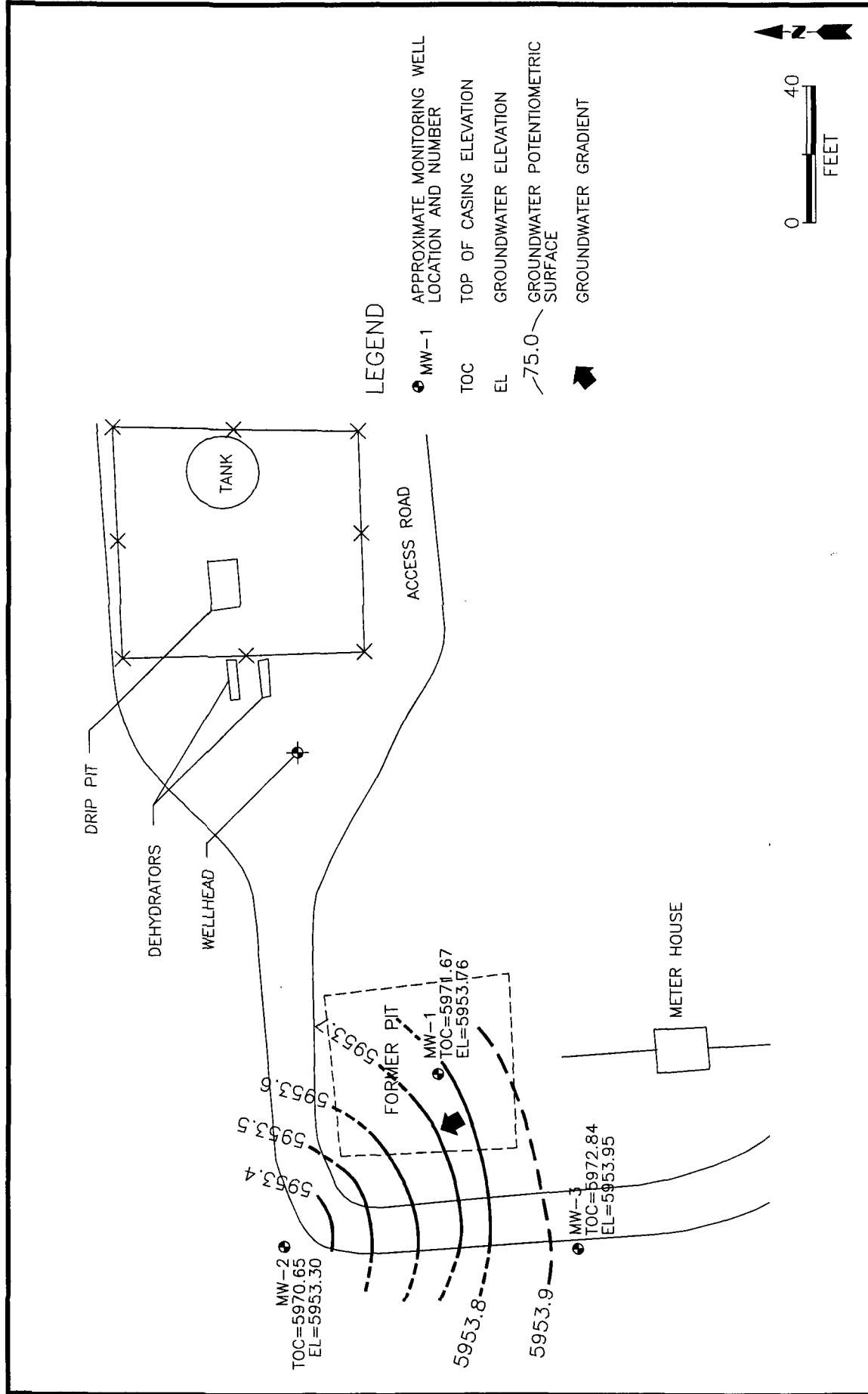
Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX (PPB)
HAM-0003-MW01	89894	HAMMOND #41A	3/31/00	1	Sample 4 - 12th Quarter	= 98	= 3.4	= 19	= 59	179.4
HAM-0006-MW01	89894	HAMMOND #41A	6/9/00	1	Sample 4 - 13th Quarter	= 290	= 9.7	= 49	= 290	638.7
HAM-0006-MW51	89894	HAMMOND #41A	6/9/00	1	Sample 4 - 13th Quarter	= 160	= 3.4	= 18	= 110	219.4
HAM-0009-MW01	89894	HAMMOND #41A	9/21/00	1	Sample 4 - 14th Quarter	= 110	= 1.7	= 16	= 44	171.7
HAM-0012-MW01	89894	HAMMOND #41A	12/5/00	1	Sample 4 - 15th Quarter	= 10	< 0.5	= 3.6	= 4.3	17.9
HAM-0008-MW02	89894	HAMMOND #41A	8/28/00	2	Sample 1 - 2nd Annual	= 69	= 1.3	= 9.4	= 28	107.7
HAM-0008-MW03	89894	HAMMOND #41A	8/28/00	3	Sample 1 - 2nd Annual	< 0.5	< 0.5	< 0.5	< 0.5	ND

ND = No detectable levels
Sample 1 - Annual Sampling
Sample 4 - Quarterly Sampling



COL 628\00219D-002

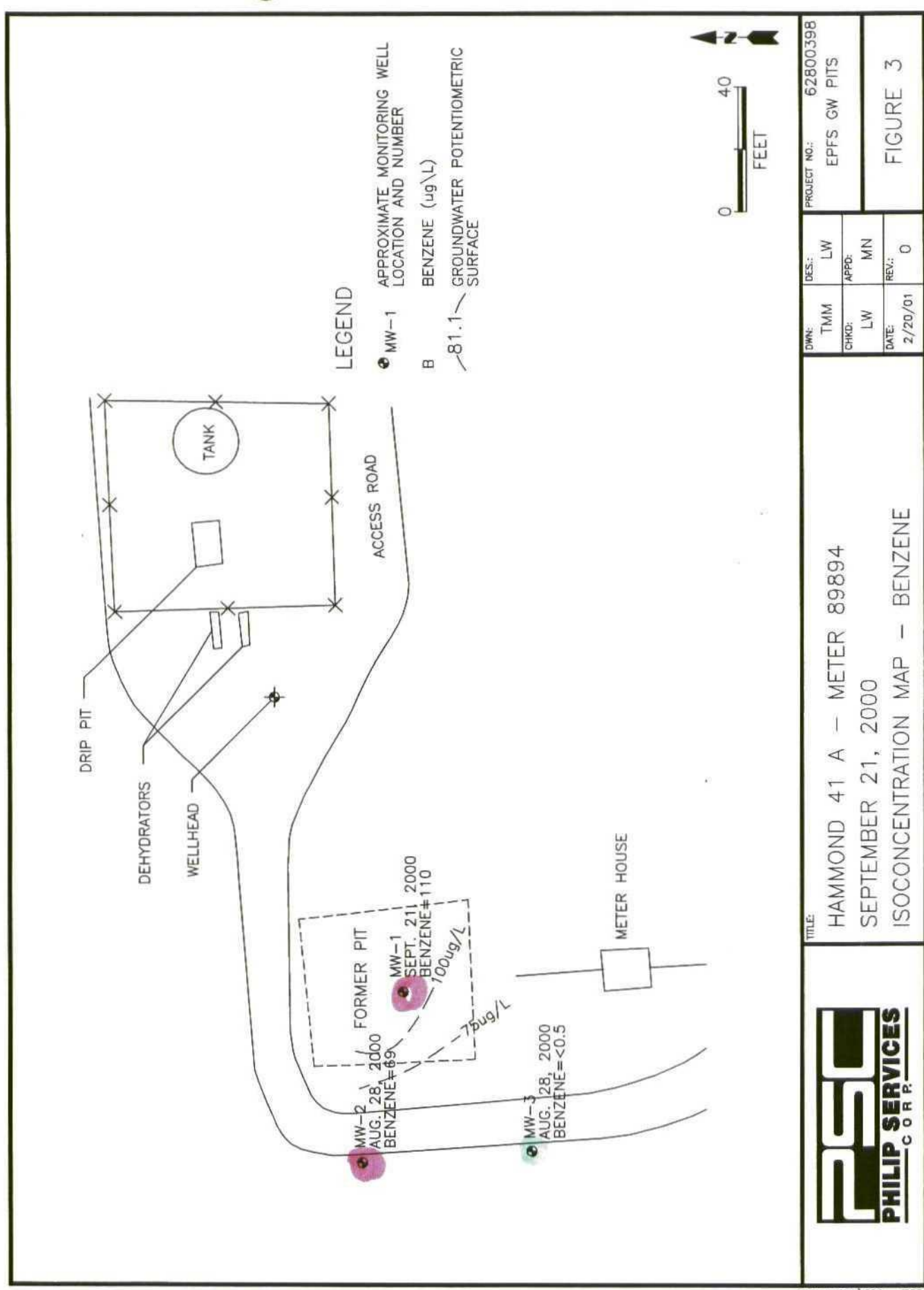
PSI PHILIP SERVICES CORP.		TITLE: HAMMOND 41 A METER 89894 SEPTEMBER 21, 2000		PROJECT NO.: 62800219 EPFS GW PITS	
DWN:	TMM	DES:	LW	APPD:	MN
CHKD:	LW	DATE:	1/31/01	REV:	0
FIGURE 1					



LEGEND

- MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER
- TOC TOP OF CASING ELEVATION
- EL GROUNDWATER ELEVATION
- 75.0 — GROUNDWATER POTENTIOMETRIC SURFACE
- ➡ GROUNDWATER GRADIENT

PSI PHILIP SERVICES CORP.		TITLE: HAMMOND 41 A METER 89894 DECEMBER 5, 2000		DWN: TMM CHKD: LW DATE: 1/31/01		DES: LW APPD: MN REV: 0		PROJECT NO.: 62800219 EPFS GW PITS	
FIGURE 2									



PHILIP SERVICES CORP.	TITLE: HAMMOND 41 A - METER 89894 SEPTEMBER 21, 2000 ISOCONCENTRATION MAP - BENZENE		DWN: TMM CHKD: LW DATE: 2/20/01	DES.: LW APPD: MN REV.: 0	PROJECT NO.: 62800398 EPFS GW PITS
	FIGURE 3				

ATTACHMENT 1

2000 GROUNDWATER ANALYTICAL

Project Name EPFS Well Samples

Project Manager Robert Thompson

Project No. 62800107

Client Company: EL PASO FIELD SERVICES

Phase.Task No. 030/

Site Name Hammond 41 A (89894)

Site Address RURAL SAN JUAN Co.

Development Criteria

3 to 5 Casing Volumes of Water Removal

~~Stabilization of Indicator Parameters~~☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 26.56 TOR

Initial Depth to Water (feet) 17.15 TOR

Height of Water Column in Well (feet) 9.41

Diameter (inches): Well 4 Gravel Pack

Methods of Development

Pump. Bailer.

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other

Instruments

☒ 24 Motor

☐ DO Monitor

☒ Conductivity Meter

☒ Temperature Meter☐ Other

Serial No. (If applicable)

HYAC

☐ DO Monitor

HyDAC

tydac

Water Disposal

KUTZ SEPARATOR

Water Removal Data

[illegible]

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

Comments	SAMPLED AT	1320 - OOC	# C2539

Developer's Signature(s) Kelly Padilla

Date 3/31/00

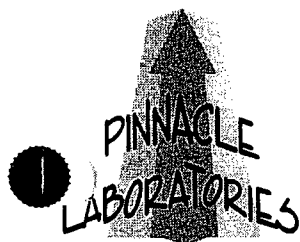
Reviewer RT Date 4/7/00

PHILIP

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

COC Serial No. C 2539

[illegible]



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

Pinnacle Lab ID number 004040
April 13, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: KELLY PADILLA

On 04/12/00 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.

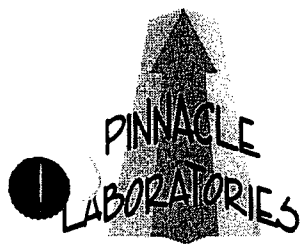
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
General Manager

MR: jt

Enclosure

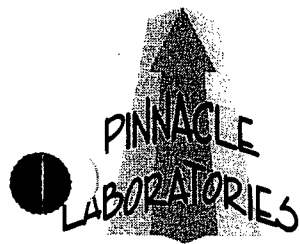


2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

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

PINNACLE ID : 004040
DATE RECEIVED : 04/12/00
REPORT DATE : 04/13/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	HAM-0003-MW01	AQUEOUS	03/31/00
02	TRIP BLANK	AQUEOUS	03/31/00



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

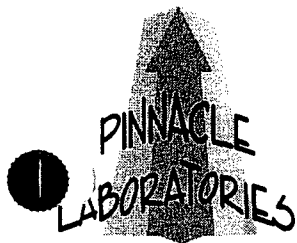
PINNACLE I.D.: 004040

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	HAM-0003-MW01	AQUEOUS	03/31/00	NA	04/13/00	1
02	TRIP BLANK	AQUEOUS	03/31/00	NA	04/13/00	1

PARAMETER	DET. LIMIT	UNITS	HAM-0003-MW01	TRIP BLANK
BENZENE	0.5	UG/L	98	< 0.5
TOLUENE	0.5	UG/L	3.4	< 0.5
ETHYLBENZENE	0.5	UG/L	19	< 0.5
TOTAL XYLENES	0.5	UG/L	59	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 98 93
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



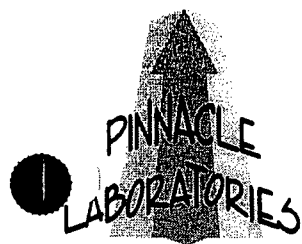
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 004040
BLANK I. D.	: 041300	DATE EXTRACTED	: N/A
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 04/13/00
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 (%) 91
SURROGATE LIMITS: (80 - 120)
TEST 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 # : 041300
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 004040
DATE EXTRACTED : N/A
DATE ANALYZED : 04/13/00
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	18.4	92	18.1	91	2	(80 - 120)	20
TOLUENE	<0.5	20.0	19.3	97	20.3	102	5	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.6	98	20.1	101	3	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	57.5	96	59.5	99	3	(80 - 120)	20

ST NOTES:
N/A

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

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

PHILIP

Chain of Custody Record

004040

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2539



Project Name <i>EPFS QUATERTARY SAMPLING</i>				Total Number of Bottles		Type of Analysis and Bottle		Comments	
Project Number <i>62800107 Phase Task 0301</i>						BTX 8021		HAMMOND #41A 89894	
Samplers <i>K. PADILLA</i>						Lab ID#			
Laboratory		Name <i>PUMAS LABS</i>							
Location <i>ALBUQUERQUE, NM</i>									
Sample Number (and depth)	Date	Time	Matrix						
<i>HAM-0003-MW01</i>	<i>3/31/00</i>	<i>1320</i>	<i>H2O</i>	<i>2</i>	<i>X</i>	<i>01</i>			
<i>TRIP BLANK</i>	<i>3/31/00</i>	<i>0800</i>	<i>H2O</i>	<i>1</i>	<i>X</i>	<i>02</i>			
Relinquished by:				Received By:					
Signature <i>Kelly Padilla</i>		Date <i>3/31/00</i>		Time <i>1600</i>		Signature <i>Monroe Davis</i>		Date <i>4/2/00</i>	
								Time <i>1120</i>	
Samples Iced: ☒ Yes ☐ NO				Carrier: <i>GREYHOUND LINES</i>					
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) _____									
☐ Other _____									
Airbill No. <i>GLT 1606650804</i>									

Reid @ 4c



Well Number md-01

Serial No. WDPD-

Project Name EPFS QUARTERLY SAMPLING Pro

Client Company: EL PASO FIELD SERVICES

Site Name HAMMOND #41 A # 89894 Site Address RURAL SAN JUAN CO.

Development Criteria

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

☒ Stabilization of Indicator Parameters

☐ Other

Methods of Development

Pump	Bailer
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
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86	86
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88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 26.70 toe

Initial Depth to Water (feet) 17.64 TOR

Height of Water Column in Well (feet) 19.5

Diameter (inches): Well 4 Gravel Pack 4

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	9.15	597 + 3	17.9
Gravel Pack			
Drilling Fluids			
Total			

Instruments
Serial No. (If applicable)

☒ pH Meter

☐ DO Monitor☒ Conductivity Meter☒ Temperature Meter☐ Other

Water Disposal

KUTZ SEPARATOR, BLOOMFIELD, N.

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met

Comments	Sampled for BTEX at 1142

Developer's Signature(s) Jessie Wagner

Date 6/9/00

Reviewer RT Date 6/19/00

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2568

[illegible]

Relinquished by:

Received By:

Furnished by:		Received By:	
Signature	Date	Signature	Date
<i>Jean Wagon</i>	6/14/00		

Samples Iced:

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 (HNO ₃)	
☐ TPH (418.1)		Sulfuric acid (H ₂ SO ₄)	
☐ Other (Specify)			
☐ Other (Specify)			

Carrier:

Carrier: GREYHOUND

Airbill No. 6LX 1606918511



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

Pinnacle Lab ID number **006062**
June 19, 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 06/15/00 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
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE ID : 006062
DATE RECEIVED : 06/15/00
REPORT DATE : 06/19/00

PIN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	HAM-0006-MW01	AQUEOUS	06/09/00
02	HAM-0006-MW51	AQUEOUS	06/09/00



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

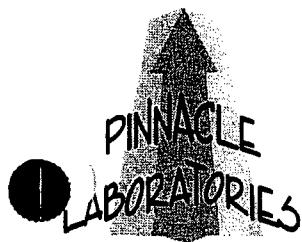
PINNACLE I.D.: 006062

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0006-MW01	AQUEOUS	06/09/00	NA	06/16/00	5
02	HAM-0006-MW51	AQUEOUS	06/09/00	NA	06/16/00	5

PARAMETER	DET. LIMIT	UNITS	HAM-0006-MW01	HAM-0006-MW51
BENZENE	0.5	UG/L	290	160
TOLUENE	0.5	UG/L	9.7	3.4
ETHYLBENZENE	0.5	UG/L	49	18
TOTAL XYLENES	0.5	UG/L	290	110

SURROGATE:
BROMOFLUOROBENZENE (%) 101 110
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



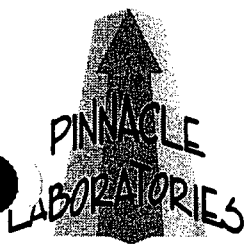
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 006062
BLANK I. D.	: 061500	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 06/15/00
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 (%) 107
SURROGATE LIMITS: (80 - 120)
COMMENTS NOTES:



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.	: 006062
BLANK I. D.	: 061600	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 06/16/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		

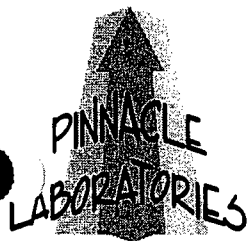
PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:
BROMOFLUOROBENZENE (%)

113

SURROGATE LIMITS: (80 - 120)

TEST NOTES:



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 # : 006058-05
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 006062
DATE EXTRACTED : NA
DATE ANALYZED : 06/15/00
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	18.2	91	17.9	90	2	(80 - 120)	20
TOLUENE	<0.5	20.0	19.9	100	20.0	100	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.2	101	20.3	102	0	(80 - 120)	20
TOTAL XYLENES	0.9	60.0	61.6	101	61.7	101	0	(80 - 120)	20

CLIENT 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 2568

06062

[illegible]

Relinquished by:

Received By:

Received by.		Signature		Date	Time
J. J. Wagon		[Signature]		6/14/00	1140
		[Signature]		6/15/00	9:22

Samples Iced: ☒ Yes ☐ No

Samples Iced: ☒ Yes ☐ No

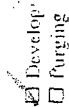
☐ Cyanide Sodium hydroxide (NaOH)
☒ Volatile Organic Analysis Hydrochloric acid (HCl)
☐ Metals Nitric acid (HNO₃)
☐ TPH (418.1) Sulfuric acid (H₂SO₄)
☐ Other (Specify) _____
☐ Other (Specify) _____

Carrier: GREYHOUND LINES

Shipping and Lab Notes:

Airbill No. GLI 1606918511

13.9 46°C for 5 min cool

Well Number **AW - 03**

Serial No. WOPD-

Project Name EPFS quarterly Sampling
Client Company EPFS

Site Name Hammond (898944)

Site Address Rinal SAN Juan CO.

Project Manager R Thompson

Project No. 628 00107

Phase, Task No. 0301

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 28.03
Initial Depth to Water (feet) 14.96
Height of Water Column in Well (feet) 9.02
Diameter (inches): Well 2" Gravel Pack

Methods of Development

Pump ☐ Centrifugal ☒ Bottom Valve ☐ Double Check Valve ☐ Stainless-steel Kemmerer

Bailer ☐ Submersible ☐ Peristaltic ☐ Other

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	9.10	148.83	64.44
Gravel Pack			
Drilling Fluids			
Total			64.44

Water Disposal

K-12 Separator Bloomfield N.M.

Water Removal Data

[illegible]

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

Comments	1509 Sampled for BTEX. Well needs 2" dip.
----------	---

Developer's Signature(s) _____

Date 12/2/2013

Reviewer RT Date 8/29/00

Well Number **W 07**

☐ Developer ☐ Partner

Project Name EpFS quarterly sampling
 Client Company E. p. F.S.
 Project Manager R Thompson
 Project No. 02800107
 Phase/Task No. 0301

Site Name Hammond (875941) Site Address Rural S. 1/4 Sec 20.

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet) 29.12 TOR
Initial Depth to Water (feet) 17.32 TOR
Height of Water Column in Well (feet) 11.8
Diameter (inches): Well 2" Gravel Pack

Methods of Development

Pump ☐ Centrifugal ☒ Bottom Valve ☐ Double Check Valve ☐ Stainless-steel Kemmerer

☐ Submersible ☐ Peristaltic ☐ Other

Baller

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	11.8	1.92 x 3	5.76
Gravel Pack			
Drilling Fluids			
Total			5.76

Water Disposal
K-TZ separator Bloomfield N.M.

Water Removal Data

[illegible]

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

Comments Sampled for B Tex 1347. Well needs 2" cap

Developer's Signature(s) James E. Lagson

Date 1/28/20

Reviewer RT Date 8/29/00

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2652

[illegible]

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
<i>[Signature]</i>	8/28/00	1600			

Samples Iced:

5

of

Samples Iced: ☒ Yes ☐ No

☐ Cyanide Sodium hydroxide (NaOH)☐ Volatile Organic AnalysisHydrochloric acid (HCl)☐ Metals Nitric acid (HNO₃)

☐ **TPH (418.1) Sulfuric acid (H₂SO₄)**

☐ Other (Specify) _____

☐ Other (Specify) _____

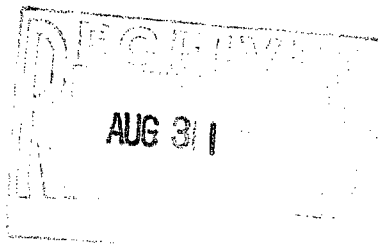
Carrier:

Shipping and Lab Notes:

[illegible]

Airbill No. 6LH/60691 8533

PINNACLE
LABORATORIES



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

Pinnacle Lab ID number 008105
August 08, 1998

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

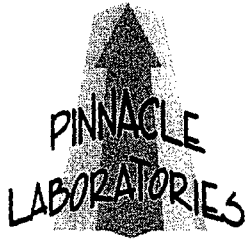
On 08/29/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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	: 008105
PROJECT #	: 62800107	DATE RECEIVED	: 08/29/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 08/30/00
PIN			
ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	HAM-0008-MW03	AQUEOUS	08/28/00
02	HAM-0008-MW02	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.: 008105

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. 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

PARAMETER	DET. LIMIT	UNITS	HAM-0008-MW03	HAM-0008-MW02
BENZENE	0.5	UG/L	< 0.5	69
TOLUENE	0.5	UG/L	< 0.5	1.3
ETHYLBENZENE	0.5	UG/L	< 0.5	9.4
XYLENES	0.5	UG/L	< 0.5	28

SURROGATE:

BROMOFLUOROBENZENE (%)

104

120

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



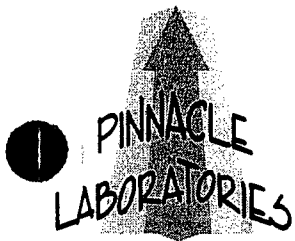
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 008105
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:
BROMOFLUOROBENZENE (%) 97
SURROGATE LIMITS: (80 - 120)
COMMENTS 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 # : 008103-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 008105
DATE EXTRACTED : NA
DATE ANALYZED : 08/29/00
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	19.7	99	19.6	98	.1	(80 - 120)	20
TOLUENE	<0.5	20.0	20.5	103	19.9	100	3	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.9	105	20.5	103	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	62.2	104	61.2	102	2	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

COC Serial No. C 2652

[illegible]

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Jane Wagner	8/28/00	1627	Jane Wagner	8/29/00	1000

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) _____

Carrier:

SEVEN UNOFFICIALS

Carrier: 6R2YH

Airbill No. 667/606918533

kid @ 4.30

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2459

[illegible]

Relinquished by:

Received By:

[illegible]**Samples Iced:**

S ☐ **No**

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

Carrier: 603
Shipping and Lab Notes:

Carrier: FCB

Airbill No. GLL1606918687

☐ Cyanide..... Sodium hydroxide (NaOH)

☐ Volatile Organic Analysis..... Hydrochloric acid (HCl)

☐ Metals..... Nitric acid (HNO₃)

☐ TPH (418.1)..... Sulfuric acid (H₂SO₄)

☒ Other (Specify) H₂O

☐ Other (Specify) _____

PINNACLE
LABORATORIES

OCT 2 2000

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

Pinnacle Lab ID number 009130
September 29, 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 09/26/00 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.

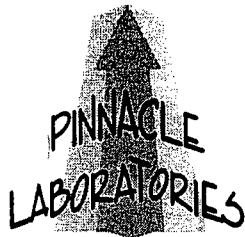
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



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	: 009130
PROJECT #	: 62800107	DATE RECEIVED	: 09/26/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 09/29/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	HAM0009 MW01	AQUEOUS	09/21/00



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.: 009130

SAMPLE	DATE	DATE	DATE	DIL.		
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
1	HAM0009 MW01	AQUEOUS	09/21/00	NA	09/27/00	1
PARAMETER	DET. LIMIT	UNITS	HAM0009 MW01			
BENZENE	0.5	UG/L	110			
TOLUENE	0.5	UG/L	1.7			
ETHYLBENZENE	0.5	UG/L	16			
TOTAL XYLENES	0.5	UG/L	44			

DATE:
BROMOFLUOROBENZENE (%) 117
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



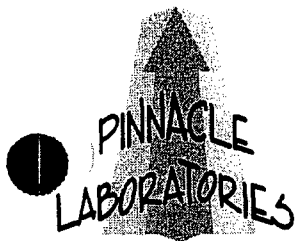
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 009130
BLANK I. D.	: 092700	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 09/27/00
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 (%) 103
SURROGATE LIMITS: (80 - 120)
CHEMICAL 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 # : 009128-02
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 009130
DATE EXTRACTED : NA
DATE ANALYZED : 09/27/00
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	18.5	93	19.4	97	5	(80 - 120)	20
TOLUENE	<0.5	20.0	20.4	102	21.0	105	3	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.1	106	21.5	108	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	63.6	106	64.4	107	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

4000 Monroe Road
Farmington, NM 87401

COC Serial No. C 2459

DRIP

ENVIRONMENTAL

[illegible]

Relinquished by:

Received By:

[illegible]

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) <u>H₂SO₄</u> ☐ Other (Specify) _____	Carrier: <u>Greyhound</u> Shipping and Lab Notes:	Airbill No. <u>GLI1106918687</u> <u>Rec'd @ 6:00 Ice Present</u>
--	--	---

Well Number MW 01

WELL DEVELOPMENT AND PURGING DATA

☐ Developer
☒ Primary
☐ Partner

Serial No. WDPD-

Page 1 of 1

Project Name: EPES Quarterly Samplings

Project Manager R Thompson

Project No. 62800107

Client Company EPES

Phase.Task No. 0301

Site Name HAMMOND 41A (89894)

Site Address Rural San Juan CO

Development Criteria

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

Water Volume Calculation

Initial Depth of Well (feet)

Initial Depth to Water (feet) 27.91

Height of Water Column in Well (feet) 8.7
 Diameter (inches): Well 4" Gravel Pack

Methods of Development

Pump Bailer

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other

Instruments

☒ pH Meter☐ DO Monitor

Serial No. (If applicable)

Hydax

Y

Hy Jac

☒ Temperature Meter

☐ Other _____

Water Disposal

KUTZ Separator Bloomfield NM.

Water Removal Data

[illegible]

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

Comments	Sampled for BTEX 1036

Developer's Signature(s) R. A. May

Date 12-05-00

Reviewer RT Date 12/7/00

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

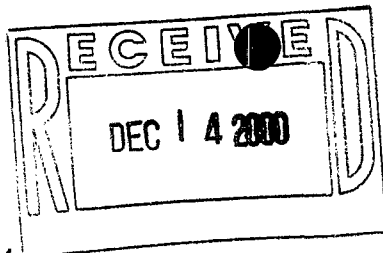
COC Serial No. C 2805

Relinquished by:

Received By:

Received by:		Received by:		Received by:	
Signature	Date	Time	Signature	Date	Time
Chia A. Lim	12-07-00	12-07-00			

Samples Iced: ☒ Yes ☐ No		Carrier: <i>Greyhound</i>	Airbill No. <i>6LZ1606919985</i>
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) <i>HSCl₂</i>			
☐ Other (Specify) _____			



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

Pinnacle Lab ID number **012036**
December 13, 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

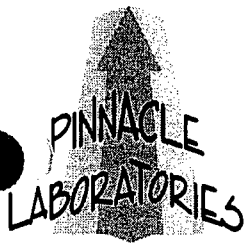
On 12/08/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

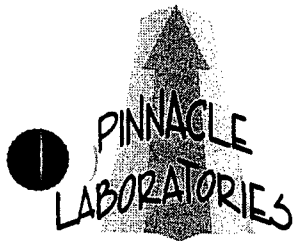
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 012036
PROJECT #	: 62800107	DATE RECEIVED	: 12/08/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 12/13/00
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
012036 - 01	HAM-0012-MW01	AQUEOUS	12/05/00



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

GAS CHROMATOGRAPHY RESULTS

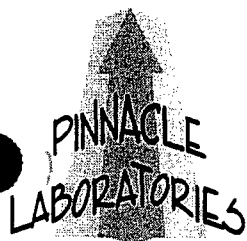
TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 012036

SAMPLE	DATE	DATE	DATE	DIL.		
D. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	HAM-0012-MW01	AQUEOUS	12/05/00	NA	12/12/00	1
PARAMETER	DET. LIMIT	UNITS	HAM-0012-MW01			
BENZENE	0.5	UG/L	10			
TOLUENE	0.5	UG/L	< 0.5			
ETHYLBENZENE	0.5	UG/L	3.6			
TOTAL XYLENES	0.5	UG/L	4.3			

3 SURROGATE:
BROMOFLUOROBENZENE (%) 104
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.	: 012036
BLANK I. D.	: 121200	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 12/12/00
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 (%)

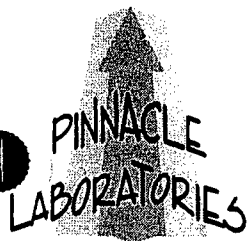
96

DATE LIMITS:

(80 - 120)

CHEM. 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 # : 012033-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 012036
DATE EXTRACTED : NA
DATE ANALYZED : 12/12/00
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	19.7	99	19.9	100	1	(80 - 120)	20
TOLUENE	<0.5	20.0	19.2	96	19.4	97	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.7	104	20.9	105	1	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	60.5	101	61.1	102	1	(80 - 120)	20

CHEMIST NOTES:
A

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

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

PHILIP

ENVIRONMENTAL

Chain of Custody Record

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

COC Serial No. C 2805

012036

Project Name <i>EpES quarterly Sampling</i>		Type of Analysis and Bottle		Total Number of Bottles		Comments	
Project Number <i>60500107 Phase Task 0301</i>							
Samplers <i>C-mae2</i>							
Laboratory							
Name <i>PINNACLE</i>							
Location <i>AB3Q N.M.</i>							
Sample Number (and depth)	Date	Time	Matrix				
<i>HAM-0012-MW01</i>	<i>12-05-00</i>	<i>1036</i>	<i>H2O</i>	<i>2</i>	<i>X</i>	<i>01</i>	<i>HAMMOND 41A #14 (89894)</i>
<i>BTex 8021 LAB 901</i>							

Relinquished by:

Signature <i>Chris A. May</i>	Date <i>12-07-00</i>	Time <i>12-07-00</i>	Signature <i>Shanane Jannu</i>	Date <i>12/8/00</i>	Time <i>1005</i>
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Received By:

Samples Iced: ☒ Yes ☐ No	Carrier: <i>Greyhound</i>	Airbill No. <i>GLI1606919985</i>
Preservatives (ONLY for Water Samples)		
☐ Cyanide Sodium hydroxide (NaOH)		
☐ Volatile Organic Analyses Hydrochloric acid (HCl)		
☐ Metals Nitric acid (HNO3)		
☐ TPH (418.1) Sulfuric acid (H2SO4)		
☒ Other (Specify) <i>HSCL2</i>		
☐ Other (Specify)		

Rec'd @ 4:30

ATTACHMENT 2

**MONITOR WELL COMPLETION
RECORDS**

MONITORING WELL INSTALLATION RECORD

Up Environmental Services Corp.

1000

New Mexico 87401

610-862-2382 FAX (505) 326-2388

Borehole # 1

Well # MW2

Page 2 of 2

Project Name EPFS GROUNDWATER

Project Number 62800018 Phase

Project Location HAMMOND 41A

On-Site Geologist C. CULLICOTT

Personnel On-Site K. PADILLA + D. PADILLA

Contractors On-Site Ø

Client Personnel On-Site Ø

Elevation

Well Location

WL Depth 15.25'

Installed By K. PADILLA + D. PADILLA

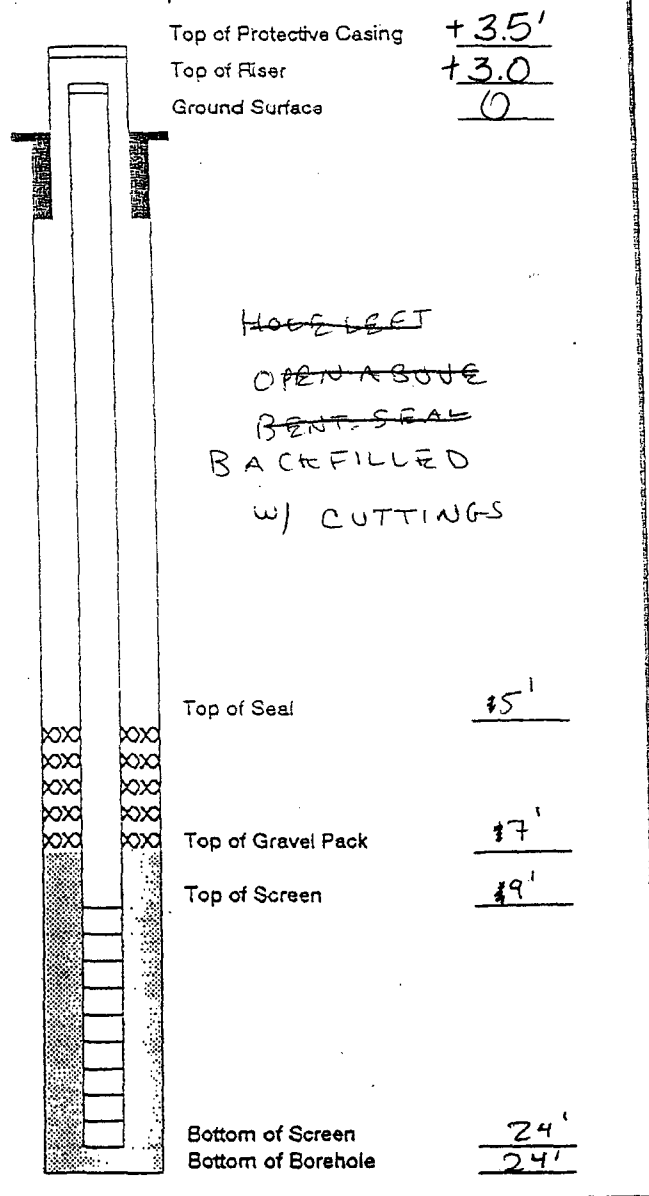
Date/Time Started 9/10/99 10am

Date/Time Completed 9/10/99 12:10PM

meter 89894 Temp. well completed 7/18/00

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	2"	+1'
Bottom of Well Riser	2"	19'
Top of Well Screen	2"	19'
Bottom of Well Screen	2"	24'
Top of Peltonite Seal	BENT.	15'
Bottom of Peltonite Seal	CHIPS	17'
Top of Gravel Pack	CO SAND	17'
Bottom of Gravel Pack	CO SAND	24'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		24'



nts: WELL DRAINED TO 25', AUGER FILLED WITH INFLOWING SAND, ABLE TO GET PIPE TO ~24' TO SET WELL

Well Developed w/ 7 gallons

removed, 1:05 - 1:30pm WATER

LEVEL AFTER PURGING IS WITHIN

1/10' OF LEVEL BEFORE PURGE EXCELLENT PRODUCER

Geologist Signature

Cathy Cullcott

WATER IS TURBID, BUT HAS NO OBVIOUS ODOR.

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.

3000 Road

Albuquerque, New Mexico 87401

Phone (505) 262-2882 FAX (505) 326-2388

Borehole # 2
Well # MW3
Page 2 of 2

Project Name EPFS.GW

Project Number 02800018 Phase

Project Location FLAMMENO 41A

On-Site Geologist C. CULLICOTT

Personnel On-Site F. PADILLA & D. PADILLA

Contractors On-Site

Client Personnel On-Site

Elevation
Well Location T27N R8W S25 O
Well Depth 13.15'
Installed By F. PADILLA & D. PADILLA

Date/Time Started 9/10/99 12:15pm

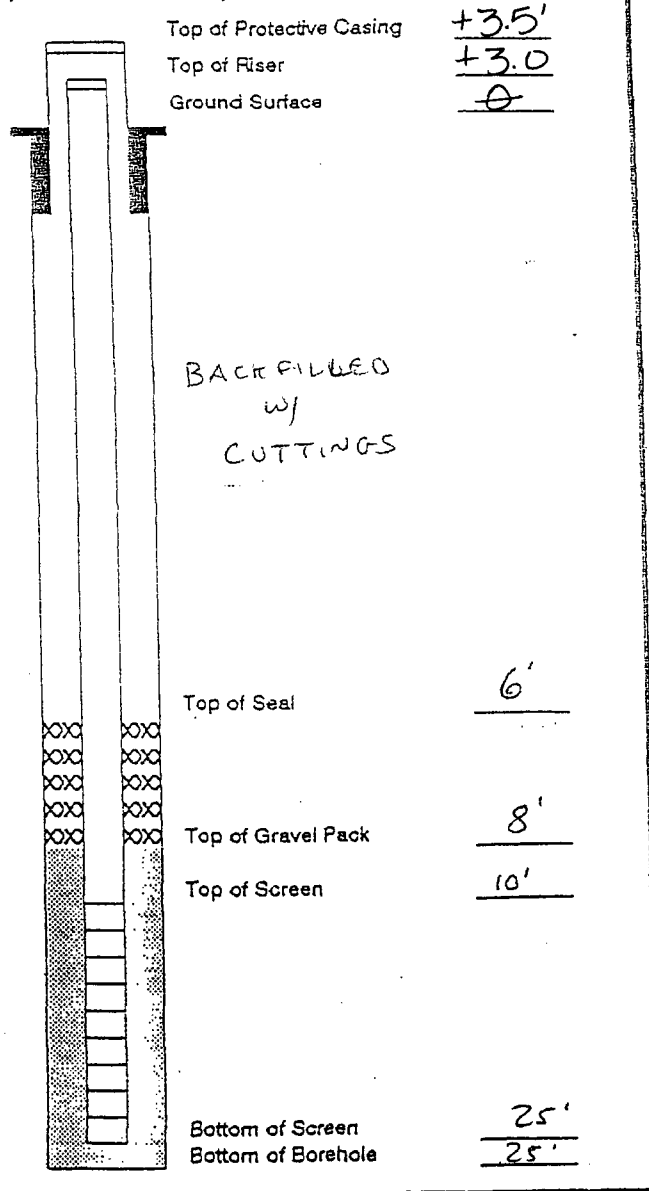
Date/Time Completed 9/10/99 1:45pm

meter 89894

Temp well completed 7/18/00

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	2"	+1
Bottom of Well Riser	2"	10'
Top of Well Screen	2"	10'
Bottom of Well Screen	2"	25'
Top of Peltonite Seal	BENT	6'
Bottom of Peltonite Seal	CHIPS	8'
Top of Gravel Pack	CO	8'
Bottom of Gravel Pack	SAND	25'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		
Total Depth of Borehole		25'



ITS: 7 gallons bailed 1:55-2:15pm DTW AFTER BURGling
14.20' WATER IS TURBID, BUT HAS NO ODOR.

Geologist Signature

Cathy Cullicott