3R - 145

REPORTS

DATE: 2000

SAN JUAN BASIN PIT CLOSURES San Juan Basin, New Mexico

6

El Paso Field Services Pit Closure Reports

March 2001

Prepared For

El Paso Field Services Farmington, New Mexico

Project 62800398



EPFS GROUNDWATER PITS 2000 CLOSURE REPORT

ANDERSON GC A #1 CH Meter/Line ID - 95210

SITE DETAILS

Legals - Twn: 29N Rng: 10W Sec: 28 NMOCD Hazard Ranking: 40 Operator: AMOCO PRODUCTION COMPANY Unit: C Land Type: FEE

PREVIOUS ACTIVITIES

Site Assessment: Apr-94 Re-Excavation: Oct-96 (192 CY) Submitted for Closure: Dec-98 Denied Closure: Jul-99 Excavation: Apr-94 (25 CY) Soil Boring: Feb-97 Additional Monitor Well: Nov-99

Geoprobe: Oct-96 Monitor Well: Feb-97

Following the initial site assessment in April of 1994 (previously submitted), the pit was excavated to 6 feet beneath ground surface (bgs) where groundwater was encountered. A composite soil sample was collected from the excavation bottom and four walls. Approximately 25 cubic yards were removed during excavation. The headspace soil reading from the excavation bottom was 428 ppm. Soil analytical was as follows: benzene - <0.5, total BTEX – 26.9, and TPH (418.1) 2,220 mg/kg (analytical data was submitted in the December 1998 Groundwater Closure Report).

The pit was re-excavated to 11 feet bgs and an additional 192 cubic yards of contaminated soil were removed in October of 1996 (previously submitted). Groundwater was encountered at 6 feet bgs. Excavation to the south was limited by trees and large berm used for flood control (levee) for the San Juan River. The headspace soil reading from the excavation bottom was 126 ppm. Soil analytical was as follows: benzene – non- detect, total BTEX – non- detect, and TPH – 25.0 mg/kg (analytical data was previously submitted). One half gallon of 30% hydrogen peroxide was added to the excavation to aid in the natural degradation of residual hydrocarbons.

In February of 1997 one soil boring was drilled in the center of the former pit. Groundwater was encountered at 6 feet bgs and a monitoring well was installed. No soil samples were collected. Quarterly groundwater monitoring was initiated on March 11, 1997 and continued through May 5, 1998.

Following the closure request for this site in the December 1998 annual report, two additional monitor wells were requested by the OCD in correspondence dated July 28, 1999. One monitor well, MW-2, was installed in November 1999. Groundwater analytical data from this monitor well establishes no detectable levels of hydrocarbon migration in MW-2.

For an additional monitor well to be installed downgradient of the former pit, the monitor well would have to be located south of the fence that is next to the former pit. This location, privately owned, maintains dense tree coverage and a 20-30 foot levee for the river, which prohibits drilling of the second downgradient monitor well.

Based on groundwater levels collected from Geoprobe and monitoring well data, the groundwater flow trends to the south on this site. One downgradient groundwater sample collected from PH-8 in 1996 was below standards for BTEX (Table 1 and Figure 2). Groundwater samples collected

EPFS GROUNDWATER PITS 2000 CLOSURE REPORT

from cross-gradient and upgradient probeholes, piezometers, and MW-2 were below regulatory standards for BTEX (analytical data previously submitted).

Historical analytical groundwater data is included in Table 1. Laboratory analytical data, well diagrams and boring logs were previously submitted in respective reports.

2000 ACTIVITIES

Groundwater Monitoring – Annual groundwater samples were collected from MW-1, MW-2 and former piezometer PZ-1 in 2000. Groundwater analytical data has been below standards since sampling was initiated at this site.

SUMMARY TABLES

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

SITE MAP

A site map is presented as Figure 1. A figure previously included in the 1999 Annual Groundwater Report is offered as Figure 2 to show the groundwater gradient for this site (a current figure with groundwater elevation and gradient is not possible due to apparent damage to MW-2).

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

There were no drilling activities at this site during 2000.

DISPOSITION OF GENERATED WASTES

There were no wastes generated at this site in 2000.

CONCLUSIONS

EPFS has excavated 217 cubic yards of slightly contaminated soil from the former pit. Soil samples collected from the excavation were below regulatory standards. Laboratory analyses of groundwater from MW-1 and MW-2 have demonstrated no detectable levels of BTEX constituents since August of 1997 (Table 1).

Groundwater analytical data from a sample obtained from PZ-1, PH-2, PH-3 and PH-8 has indicated only trace levels of BTEX constituents, below the NMWQCC groundwater standards. Additional groundwater monitor wells are not feasible downgradient of the former pit. Negligible impact to groundwater has occurred at this site. Therefore, EPFS requests closure of this site.

RECOMMENDATIONS

- EPFS requests closure of this site.
- Following OCD approval for closure, MW-1 and MW-2 will be abandoned in accordance with the Monitoring Well Abandonment Plan.



March 2001

EPFS Groundwater Pits 2000 Groundwater Report

Table 1

Sample #	Meter / Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	(PF	Jene PB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX (PPB)
970206	95210	ANDERSON GC A #1 CH	3/11/97	1	Phase II Drilling - Initial	r v	v		= 3.5	= 25.6	29.1
970805	95210	ANDERSON GC A #1 CH	8/4/97	+-	Sample 2 - 1st Event		v		+	< 3	QN
980144	95210	ANDERSON GC A #1 CH	2/5/98	7	Sample 2 - 2nd Event	1	v		-	< 3	QN
980347	95210	ANDERSON GC A #1 CH	5/5/98	1	Sample 2 - 3rd Event	+ +	v		-	< 3	QN
AND-0010-MW1	95210	ANDERSON GC A #1 CH	10/23/00	1	Sample 1 - 4th Event	< 0.5	0 ×	S	< 0.5	< 0.5	QN
AND-0003-MW2	95210	ANDERSON GC A #1 CH	3/1/00	2	Sample 1 - 2nd Annual	< 0.5	v	S	< 0.5	< 0.5	ND
AND-0003-PZ1A	95210	ANDERSON GC A #1 CH	3/1/00	PZ1	Sample 1 - 2nd Annual	< 0.5	=	9	= 0.5	= 2.5	3.6
947934	95210	ANDERSON GC A #1 CH	10/21/96	PH2	Sample 1	= 1.28	= 2	34	= 16.5	= 85.7	105.8
947936	95210	ANDERSON GC A #1 CH	10/23/96	PH3	Sample 1	+	=	. 11	4	= 2.32	4.09
947941	95210	ANDERSON GC A #1 CH	10/23/96	PH8	Sample 1	-	v		+	< 3	QN

ND - No detectable levels

Sample 1 - Annual Sampling Sample 2 - Semi-annual Sampling Analytical Tables.xls95210





ATTACHMENT 1

2000 GROUNDWATER ANALYTICAL

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Pinnacle Lab ID number November 02, 2000 010102

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

EL PASO FIELD SERVICES 614 RIELLY STREET FARMINGTON, NM 87401

Project Name Project Number EPFS QUARTERLY SAMPLING 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

On 10/26/00 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



01	AND-0010-MW 01	AQUEOUS	10/23/00
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
PIN			DATE
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 11/02/00
PROJECT #	: 62800107	DATE RECEIVED	: 10/26/00
CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 010102

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GAS CHROMATOGRAPHY RESULTS

TEST CLIENT PROJECT # PROJECT N	IAME	: EPA 8021 MOD : PHILIP ENVIRC : 62800107 : EPFS QUARTE	IFIED DNMENTAL RLY SAMPLII	NG		PINNACLE I.D	.: 010102
SAMPLE				DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	AND-0010-MW	01	AQUEOUS	10/23/00	NA	10/30/00	1
	R	DET. LIMIT			AND-0010-MW		:
TOLUENE	ZENE	0.5		UG/L UG/L	< 0.5		
TO XYL	ENES	0.5		UG/L	< 0.5		
BROMOFLU SURROGAT	JOROBENZENE FE LIMITS	(%) (80 - 120)			111		

CHEMIST NOTES: N/A



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST BLANK I. D. CLIENT PROJECT #	: EPA 8021 MODIFIED : 103000 : PHILIP ENVIRONMENTAL : 62800107	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	::	010102 NA 10/30/00 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			
SUF GATE: BRUEFLUOROBENZENE (%) SURFOGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	105			



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 MC	DIFIED							
MSMSD #	: 010100-01				PINNACLE	I.D.	:	010102	
CLIENT	: PHILIP ENVI	RONMENTA	AL.		DATE EXTR	ACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	10/30/00	
PROJECT NAME	: EPFS QUAR	FERLY SAN	1PLING		SAMPLE M	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	19.9	100	17.6	88	12	(80 - 120)	20
TOLUENE	<0.5	20.0	19.9	100	19.9	100	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.3	107	21.5	108	1	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	62.4	104	62.6	104	0	(80-120)	20



CHEMIST NOTES: N/A

(Spike Sample Result - Sample Result)

% Recovery =

----- X 100 Spike Concentration

(Sample Result - Duplicate Result)

RPD (Relative Percent Difference) =

Average Result



- X 100

	Chain of (Custody	tecord	01010
	4000 Monroe Road Farmington, NM 874	01 (505) (505)	326-2388 FAX C	oc serial No. C 2679
Project Name EDFS quarterly Serr Project Number 63800107 Phase. Task 0	<u>101.0000000000000000000000000000000000</u>	Type of Analysis and Bottle		
Samplers C. Mare 2		ler of		
Laboratory Name DT N NACLE				
Location ALBQ W.M.		N letc		
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Project Name EPFS CAW PITS	Project Manager STEVE STEULAN	ATO Project No. 62800018
Client Company EL PASO FIELD SEEVICES		Phase.Task No.
Site Name ANDERSON GAS (OM A #)	Site Address BLOOMBELD , NW	
Development Criteria C 3 to 5 Casing Volumes of Water Removal C Stabilization of Indicator Parameters C Other	Water Volume Calculation nilicil Depth of Well (feet) 2 nilicil Depth to V/oter (feet) 2 Height of Water Column in Well (feet) 2	Instruments Serial No. III applicable) p pH Meter <u>EXTECH</u> D D Monitor
Methods of Development Pump Bailer Centrifugal A Bottom Valve D Staintess-steel Kemmerer	Diameter (inclies): Well T. Gravel Pack Water Volume in Well Gallons to be Vell Cashing Gravet Pack	A Conductivity Meter HYDAC Temperature Meter HYDAC
U Other	lotal	ON GROUND ON SITE
Development Removal Removal Indake Deptili Ending Date Nethod (all Water Deptili Date Time Pump Baller	Waler Volume Removed Praduct Volume Terrperature ph (galtons) Removed Igalians) Terrperature ph haternant Cumulative Increment Cumulative	Conductivity Divisioved Comments Immhos/cm) Oxygen Comments img/tj
	12237100 1	Du E
	UFFICIENT WE	<pre> \</pre>
Circle the date and time that the development criteria are met. Comments WATER LEVEL AND TOTAL (WEL	L DEPTH WERE NOT RECORDED DU	E TO IMPROPER SIZE DIL/WATER
INTERPACE PRUBE WELL DIAMETER WAS	TO SMALL FOR DIAMETER OF PRI	382.
Developer's Signature(s) believed Chronie	200 D ale 3/1/00	deviewer Date
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		Well	Number_	MM-	2	*****	De De	-	WEL	L DEV	'ELOF	MENT	AND PL	
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4000	0 Monroe Road mington, NM 87	401 (5	05) 326-2262 Phone 05) 326-2388 FAX	coc serial No. C 24	98
Project Name EPFS GLU TNU)EST. Project Number 1628 00/018 Phase Task 35 Samplers R. TH:0M PS0 N		T ype of Analysis and Bottle			
Laboratory Name ANNALLE LABS Location ALBU QUERQUE	<u>A</u> M	Total Numbe			Anomumo State
AND - 0003 - MWZ 3/1/00 1203				6	5210
AND-0003-PZ1 3/1/00 1225	120	×		2	5210
5					
Relinauished by:			Received Bv:		
Fritan Mountain	Date 3/1/02	Time	Signature	Date	Time
Samples Iced: X es No Preservatives (ONLY for Water Samples) No Cyanida Sodium hyroxide (NaOH) X volatile Organic Analysis Nydrochloric acid (HC) Matals Nitric acid (H2SO4) Other (Specify) Other (Specify)	Carrier: C.P.F. Shipping and I	d Durns ab Notes: Kur	HANNES - TNUO	AITDINO. GUZ 160 6 DICE EL PASO NURMAL ICE PHILIP SERVICES FO	R20727 R212 R212 R212 R

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Project Name EPFS GW JNU)EST. Project Number 628 00018 Phase . Task 3 Samplers R, THOM PSO N	. 25	er of Bottles Analysis and Bottle			
Laboratory Name BNNALLE LABS	ŴŴ	odmuń lat			
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 Meridaa	Red	040	CHARLES		

PE-176 485

GAS CHROMATOGRAPHY RESULTS

TEST	•	EPA 8021 MOD	IFIED				
CLIENT	:	PHILIP ENVIRC	NMENTAL			PINNACLE I.D.:	003010
PROJECT #	:	62800018					
PROJECT N	IAME :	EPFS GW INVE	IST.				
SAMPLE				DATE	DATE	DATE	DIL.
1D. #	CLIENT I.D.		MATRIX	SAMPLED_	EXTRACTED	ANALYZED	FACTOR
01	AND-0003-MW2		AQUEOUS	03/01/00	NA	03/02/00	1
02	AND-0003-PZ1		AQUEOUS	03/01/00	NA	03/02/00	1
PARAMETE	R	DET. LIMIT		UNITS	AND-0003-MW2	AND-0003-PZ1 A	
BENZENE		0.5		UG/L	< 0.5	< 0.5	
TOLUENE		0.5		UG/L	< 0.5	0.6	
ETHYLBEN	ZENE	0.5		UG/L	< 0.5	0.5	
TOTAL XYL	ENES	0.5		UG/L	< 0.5	2.5	
ROGAT	TE:				MW-Z	PZ-IA	
E MOFLUOROBENZENE (%) SURROGATE LIMITS (80 - 120)					101	95	·

CHEMIST NOTES: N/A



Certified Mail:

#Z 213 707 666 (Box 1 of 2) #Z 213 707 664 (Box 2 of 2)

March 24, 2000

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

RE: 1999 Pit Project Annual Groundwater Report

RECEIVED

MAR 2 3 2000

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Dear Mr. Olson:

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

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

The Jaquez Com. C #1 and Jaquez Com. E #1 site is included in a separate report which is entitled "Jaquez Com. C #1 and Jaquez Com. E #1 Annual Report for Soil and Groundwater Remediation".

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

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

Sincerely, Scott T. Pope P.G.

Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; Certified Mail # Z 213 707 667
Mr. Bill Liesse, BLM - w / enclosures; Certified Mail # Z 213 707 668
Mr. John Jaquez, - w / Jaquez enclosures; Certified Mail # Z 213 707 669
Ms. Charmaine Tso, Navajo EPA - w / enclosures; Certified Mail # Z 213 707 670

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