3R - <u>/64</u>

REPORTS

DATE: /997



Certified Mail: #Z 295 387 297; #Z 295 387 296

February 27, 1998

RECEIVED

MAR 0 2 1998

Environmental Bureau Oil Conservation Division

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

Re: 1997 Groundwater Annual Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for 57 groundwater impacted locations that were identified during our pit closure project of 1994/1995.

Of the 57 reports, EPFS hereby requests your approval for closure of 11 of these locations. The 11 reports for which EPFS requests closure, are in 2 separate binders entitled "Request for Closure".

After you have had an opportunity to review these updates, EPFS would like to schedule a meeting with you to discuss issues related to closure criteria for some of the more complex locations that are currently being addressed.

If you have any questions regarding this information, please call me at 505/599-2141. I will contact you within the next quarter to schedule a meeting.

Sincerely,

indre D Milles

Såndra D. Miller Environmental Manager

xc: Mr. Bill Liesse, BLM w/o enclosures

Mr. Denny Foust, NMOCD - Aztec w/enclosures; Certified Mail #Z 295 387 298; #Z 295 387 299 Ms. Charmaine Tso, Navajo EPA w/enclosures; Certified Mail #Z 295 387 292

SAN JUAN BASIN PIT CLOSURES San Juan Basin, New Mexico

El Paso Field Services Pit Project Groundwater Report Annual Report

March 1998

Prepared For

El Paso Field Services Farmington, New Mexico

Project 17520



EPFS GROUNDWATER PITS 1997 ANNUAL GROUNDWATER REPORT

COLDIRON COM A #1

Meter/Line ID - 73551

SITE DETAILS

Legals - Twn: 30N Rng: 11W Sec: 2 NMOCD Hazard Ranking: 40 Operator: AMOCO PRODUCTION COMPANY Unit: K Land Type: FEE

PREVIOUS ACTIVITIES

Site Assessment: Mar-94 Monitor Well: Oct-95 Excavation: Apr-94 (50 cy)

Soil Boring: Oct-95

1997 ACTIVITIES

Quarterly Groundwater Monitoring - Quarterly groundwater monitoring was initiated on 4/17/96 and has continued into 1997. Groundwater analytical data are presented in Table 1. **Well Point Installation** - Groundwater samples were collected from temporary monitoring wells. In addition, groundwater gradient was determined using the monitoring wells.

CONCLUSIONS

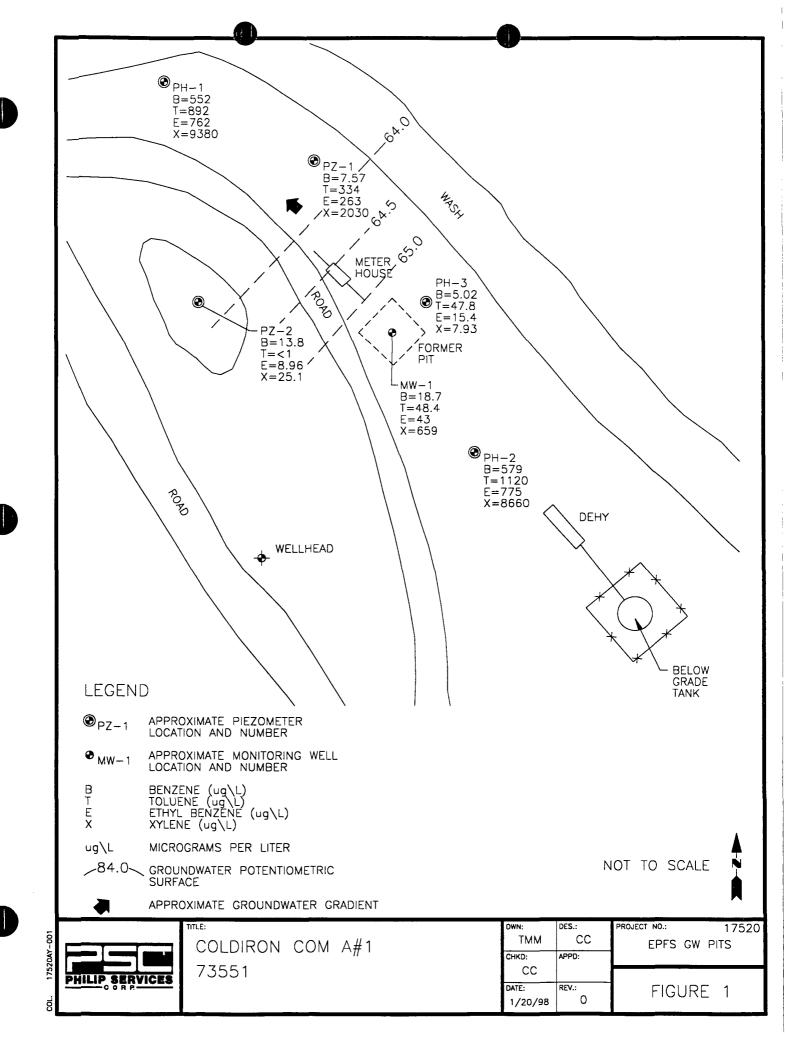
Based on groundwater levels collected from Wellpoint data, the groundwater flow trends to the northwest on this site, as presented in Figure 1. The pit is adjacent to a wash on the north side of the site. Product has been measured in MW-1 averaging 0.09 feet to 0.24 feet.

Groundwater samples were collected from five temporary monitoring wells, up and down gradient of MW-1. One cross-gradient groundwater sample collected from PH-3 was below standards for BTEX. A second cross-gradient groundwater sample collected from PZ-2 was slightly above standards for benzene at 13.8 ppb. Two downgradient groundwater samples were collected from PZ-1 and PH-1. Groundwater from PZ-1 was above standards for total xylenes only at 2,030 ppb. Farther downgradient, groundwater collected from PH-1 was above standards for BTEX.

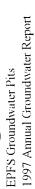
One groundwater sample collected upgradient from MW-1 at PH-2 was in excess of standards for BTEX, and indicates the production pit upgradient may be an additional source.

RECOMMENDATIONS

- EPFS proposes no further activities at this site, until the operator commences with remediation of their production pit.
- Initiate product removal at MW-1.



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Teial BJEX	3875	789	741	1149	769
			1		
Total Nytenes (PPB)	3050	581	608	882	659
	e		П	Ш	
Ethyt Benžene (PFB)	281	54.1	75.7	90.4	43
	- H				
Taluene (FPB)	464	139 =	34.8 =	143 =	48.4
Bentene (FFB)	79.5	14.6 =	22.6	33.9	18.7
	н		H.		
Project	Sample 4 - 1st Qtr	Sample 4 - 2nd Qtr	Sample 4 - 3rd Quarter	Sample 4 - 4th Qtr	Sample 4 - 5th Quarter
MIW #		1	1	-	1
Sample Date MW #	04/17/96	07/25/96	10/22/96	1/21/97	4/17/97
Site Name	Coldiron A #1	Coldiron A #1	Coldiron A #1	Coldiron A #1	Coldiron A #1
Meter' Line #	73551	73551	73551	73551	73551
Sample #	960355	960653	960880	110076	970317

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J.NI 7520Veport97A1997nuw

PHILIP ENV	/IRONN	AENTAI							Well # Page	1 of 7
4000 Monroe Farmington, Ne		87401			Project N	ame	EPNG	PITS		
(505) 326-2262			2388		Project N			509	Pha	
					Project L	ocation	يامك	licon	(om	A#1 7355
Elevation					Well Log	ged By		см с	hance	
Borehole Lo				- T30 - R11	Personne	-		K Pac	dilla, F	Rivera, D. Charl
GWL Depth Logged By	ı	<u></u> см сн		·		ors On-Site rsonnel On-	Sita			
Drilled By			F.R.	J & C 4	Clibitt 1 0					· · · · · · · · ·
Date/Time				5-0935	Drilling M			" ID H		6 24 1. D. HSA
Date/Time	Comple		0/20 14	5-71204	Air Monit	oring Metho	bd	PID, I	501	
			Sample			Depth	1		·····	1
Depth (Feet)	Sample Number	Sample Interval	Type & Recovery	Sample Description	USCS Symbol	Lithology Change		ir Monita s: PPM	oring <u>S</u>	Drilling Conditions & Blow Counts
	Number	Interval	(inches)	Classification System: USCS	- Symbol	(feet)	BZ	вн	<u>н</u>	
г — °				Backfill+p12'				1		
	:				1		ĺ			
									1	
- 5										
┣										
10										
-										
					1					
									14	09466
15	l	15-17	10	Br SAND, F-med sand, to gravel, V. loose, moist, odor			0	8	66	-0946h
				P. 18032,	SW			1		
-								1		
20	2	20-99	10	Ar			0	0	68	-0953
							0	<u>ا</u>	<u>68</u> 167	102
	,	25-27	9	L+ B+ SAND, F-med sand, v. loose,					1	1000
25	د	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		moistider			0	0	8/9	-1000
-				. .				1		
30	4	< <u><</u> - ۵ כ	Ч	BIK SAND, F-med sand, v.loose, moist, orgravel, odor					701	-1009
				maist, tryravel, Oban			0	2	926	-1001
		1. 17	J	DK gry clayeySAND, ut-fsend, has mist, blon						
35	5	⁷ C 2E	ا ر	maist, Don			ч	50	721 451	-1021
								l	,,	
				SAND, of Frand, to clay, losse,	1 C -		~		-	
40	L	40-42	<u>ƙ</u>	Wat		41	0	36	3.4	-1000
·``		1		It gry Sandy CLAY, tr f Sand, med stiff, lowplawig Moist	ĊL					
Comments:	_	\.	35.4'	(BTEX. TPH). Pull 4/4 Augurs & ge		1	دمط		. CM	(r c. z.) p 2()
	-	Sent.	to lah	(RTEX TPH). Pull 4/4 avants + 40	backid	awn w	1 6	4 1.6		
	-			,,,,,			,	.,	-2	

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RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL

4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Elevation	
Borehole Location	QK-S2-TJD-R11
GWL Depth	
Logged By	CM CHANCE
Drilled By	K Padilla F. Rovery
Date/Time Started	10/20/95 - 0935
Date/Time Comple	ted 10/20/95 -1209

	Borehole # Well # Page み	BH-1				
	Well #					
	Page	У	of	Ĵ		
NG PITS						

Project Name	EPNG PITS	
Project Number	14509 Phase 6000 77	
Project Location	Coldiron ComA#1 73551	
Well Logged By	CM Chance	
Personnel On-Site	K Padilla, D. Charlin	
Contractors On-Site		
Client Personnel On-	Site	

4 1/4" ID HSA Drilling Method Air Monitoring Method

PID, CGI

Depth (Feet)	Sampie Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	r Monitor : PPM BH	ing <u>S</u> HS	Dritting Conditions & Blow Counts
<u> </u>	L	40-42		CTNGS - DK Gry Sand, UEF					
45	7-								
				TOB45'					
<u> </u>									
<u> </u>									
<u> </u>									
- 80									
6 5									
o									
			:						
7 5									
<u> </u>									
Comments:		<u>_</u>	L	L		·	 		

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Puilip Environmental Services Corp. 4000 Morroe Road Farmington, New Mexico 87401 (506) 326-2262 FAX (606) 326-2368

Elevation	
Well Location	QK-S2-TDD-R1
GWL Depth	J4.91
Installed By F.	Veca

MONITORING WELL INSTALLATION RECORD

Date/Time Started	10/20/45 - 1230
Date/Time Completed	10/20/95-1430

	Borehole #
Project Name	EPNG PITS
Project Number Project Location	14509 Phase 6001 Coldicon Com A#1 7355/
On-Site Geologis Personnel On-Sit Contractors On-S	· K.Padilla, D. Charlie
Client Personnel	On-Site

 \mathbf{V}

Depths in Reference to Ground S	urface					Top of Protective Casing Top of Riser	<u>_NA</u> +3'
Item	Material	Depth		J「		Ground Surface	
Top of Protective Casing		NA			1. 1947 - 1		
Bottom of Protective Casing		NA					
Top of Permanent Borehole Casing		NA					
Bottom of Permanent Borehole Casing		NA					
Top of Concrete		NA					
Bottom of Concrete		NA					
Top of Grout	- 94# Type <u>I-II</u>	0'					
Bottom of Grout	- SOH poudered Bearmin	2.5					
Top of Well Riser	4" dia SCH40	+)					
Bottom of Well Riser	Flush Thread PVC	27.5					
Top of Well Screen	4" dia SCH40 FlushThreed	27.5	[Top of Seal	22. <u>5</u>
Bottom of Well Screen	0.01 Slot PVC	42.5	1	oxo oxo			
Top of Peltonite Seal	-SO# Enviro Alua	ع.مد		oxo oxo	x X X X		
Bottom of Peltonite Seal	Bentonite	a4.5	Ŷ	0X0	xx	Top of Gravel Pack	27.5
Top of Gravel Pack	-50# 10-20	A4.5				Top of Screen	27.5'
Bottom of Gravel Pack	SilicaSand	441					
Top of Natural Cave-In		435					
Bottom of Natural Cave-In		45'					
Top of Groundwater				E		Bottom of Screen	42.5
Total Depth of Borehole		45'			<u> </u>	Bottom of Borehole	45'
commonts: Bentonitte hydrat	e on visible co		- GW	Q]	4.4'	often well install	e.D
			Geologist Si	gnatur	ə	Con Chang	
		•		-			

WELLPOINTS

TEMPORARY PIEZOM					Borehol Well # Page _	e # PZ- / 1 of _1		
4000 Monroe Rd. Farmington, NM 87401			Project N	lame				
(505) 326-2262 FAX (505) 326-2388				Project Name <u>EPFS</u> <u>GW PITS</u> Project Number <u>17520</u> Phas Site Location <u>COVDIRON COM A</u> #1 -				
Elevation 104.4 Well Location Ltr K -S Z GWL Depth - 101010 Installed By M DONOH Date/Time Started <u>8 28 1</u> Date/Time Completed 1	T30-R 11 7- 63.53', 145	elev	On-Site Personn Contract Client Pe	el On-S ors On	Site <u>M DONOH</u>	UE, C. GOMEZ		
Depths in Reference to (Ground Surfa	ace			Top of Protective Casing			
Item	Material	Depth (feet)			Top of Riser (survey elev.) Ground Surface	- <u>+3.53</u> -' /0/. « 		
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								
Bottom of Well Riser Top of Well Screen					Top of Seal	N/A		
Bottom of Well Screen			x x x x	x		<u></u>		
Top of Peltonite Seal			X X X X	x x x x		,		
Bottom of Peltonite Seal			x x	X X	Top of Gravel Pack	<u>N/A</u> - 32'		
Top of Gravel Pack					Top of Screen	- 32		
Bottom of Gravel Pack								
Top of Natural Cave-In								
Bottom of Natural Cave-In								
Top of Groundwater Total Depth of Borehole		- <u>87</u> ,90 - 42'			Bottom of Screen Bottom of Borehole	-42'		
) + (-3)		TR -	31.	711/ 10930)			
Comments <u>MW-/ (708)</u> <u>30-32 HH</u>	= 258	m 2 < -	27' H	<u>ц</u> =	= 5,000 m +			
<u> </u>				ture	- <u></u>			

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Philip Services Corp.				Well # Page _	PZ-2_ 1_of_1_
4000 Monroe Rd.			Draigat Nama		
Farmington, NM 87401 (505) 326-2262 FAX (505) 326-2388			Project Name Project Numbe	EPFS GW PITS er 17520	Phase 6006
			Site Location	COLDIRON COM	A #1- 73551
Elevation(100,20	じ		On-Site Geolo	gist D CESARK	
Well Location <u>Ltr K -S 2</u>	-T30-R11	- .	Personnel On-	Site M DONOF	HE, C GOME
GWL Depth 58-36 Installed By M DONO HUE	<u>- 63.80</u> I	tler.	Contractors O Client Personr		,
					<u></u>
Date/Time Started <u>8/28/9</u> Date/Time Completed II	$\frac{7-1240}{-1420}$				
····					
Depths in Reference to C	Ground Surf	ace		Top of Protective Casing	
				Top of Riser (survey elev.)	201-22-105
Item	Material	Depth		Ground Surface	1001-
		(feet)			
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					
Bottom of Well Riser		<u> </u>			
Top of Well Screen				Top of Seal	N/A
Bottom of Well Screen			XX XX XX XX		
			x x x		
Top of Peltonite Seal			XX XX XX XX	Top of Gravel Pack	N/A
Bottom of Peltonite Seal				Top of Screen	<u>N/A</u> -37'BGS
Top of Gravel Pack				Top of Screen	<u>-376</u> 65
Bottom of Gravel Pack					
Top of Natural Cave-In					
Bottom of Natural Cave-In					
Top of Groundwater		11110		Bottom of Screen Bottom of Borehole	-47'865
Total Depth of Borehole		-471	<u>kennen (* 1997)</u>		<u>-71</u> 00
Comments <u>MW-1 (TOR</u>) HC = 3	6.63', 4	TR= 36.	71'(0930)	
	= 1,9pp		-42' HH		

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Philip Services Corp.					Well # Page	
4000 Monroe Rd. Farmington, NM 87401			Project Name	EPFS	GW PITS	
(505) 326-2262 FAX (505) 326-2388			Project Number Site Location	r 17520	ON COM A 1	Phase 6006
Elevation			On-Site Geolog	ist	D CESARK	· · · · · · · · · · · · · · · · · · ·
Well Location <u>Ltr K -S 2 -</u> T GWL Depth <u>N 35⁺ 6</u>	<u>30-r 1</u> 1		Personnel On-S	Site		UE, C GON
Installed By M DONOHUE			Client Personne		·····	
Date/Time Started <u>8-29-9</u> Date/Time Completed	771100					
	<u> </u>	· · · · · · · · · · · · · · · · · · ·				
Depths in Reference to Gr	ound Surfa	ice		Top of Protec	-	
ltem	Material	Depth (feet)		Ground Surfa	(survey elev.) ce	
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						
Bottom of Well Riser						
Top of Well Screen				Top of Seal		N/A
Bottom of Well Screen			X X X X X X X			
Top of Peltonite Seal	.		X X X X X X X X X X X X X X X X X X X			
Bottom of Peltonite Seal			X X X	Top of Grav		<u>N/A</u> 3 2 ′
Top of Gravel Pack				Top of Scre	en	32
Bottom of Gravel Pack						
Top of Natural Cave-In						
Bottom of Natural Cave-In						
Top of Groundwater	\sim	<u>85'</u>		Bottom of S		31/
Total Depth of Borehole		37'		Bottom of B	orenoie	<u> </u>
Comments <u>PZ-1 = 37,89</u> <u>35-37' HH</u>	<u>'- нс, </u>	37.90'	WTR			

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^{Philip Services Corp.}					Well # Page _	<u>1</u> of <u>1</u>
000 Monroe Rd.			Drainat Ma			
armington, NM 87401			Project Na		EPFS GW PITS	
505) 326-2262 FAX (505) 326-2388			Project Nu Site Locati		COLDIRON COM	Phase 6006
Elevation			0= 0#= 0			
Vell Location Ltr K -S)	TOARI		On-Site G Personnel	-		
GWL Depth ~ 33	RAS		Contractor			the, C.Go
nstalled By M DONOH	IF		Client Pers			
Date/Time Started <u>なって9-</u> Date/Time Completed し	97 <u> 133</u> 0					
Depths in Reference to (Ground Surf	ace	F	⊐	Top of Protective Casing	
	B.A.= 1 - 1 - 1				Top of Riser (survey elev.)	
ltem	Material	Depth			Ground Surface	. <u></u>
		(feet)				
Top of Protective Casing						
Bottom of Protective Casing Top of		+				
Permanent Borehole Casing						
Bottom of	- 18-11	+				
Permanent Borehole Casing						
Top of Concrete						
Bottom of Concrete						
Top of Grout						
Bottom of Grout	·					
Top of Well Riser						
Bottom of Well Riser		+				
Top of Well Screen					Top of Seal	NIA
				x x	· op 0, 000,	1 <u>4714</u>
Bottom of Well Screen		<u></u>		X X X X		
Top of Peltonite Seal				x x		. 14
_				x x	Top of Gravel Pack	N/A
Bottom of Peltonite Seal		+			Ton of Conton	301
Top of Gravel Pack					Top of Screen	
Bottom of Gravel Pack						
Bollom of Graver Pack		+				
Top of Natural Cave-In						
Bottom of Natural Cave-In						
		221				251
Top of Groundwater	^	- 33'			Bottom of Screen Bottom of Borehole	<u>.52</u> 25/
Total Depth of Borehole Comments $MW - / \rightarrow$ 33' - 35' H		35	L			
		1.01	_	_	L	

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					Well #	PZ-PH3
Philip Services Corp. 1000 Monroe Rd.					Page <u>1</u>	of
armington, NM 87401			Project Name		W PITS	
505) 326-2262 FAX (505) 326-2388			Project Numbe Site Location	r 17520		_ Phase <u>600</u> 入
Elevation			On-Site Geolog	gist C	CHANCE	
	-10 -R		Personnel On-	Site <u>C</u>	Gomez	· · · · · · · · · · · · · · · · · · ·
GWL Depth nstalled By M. Deceby-f			Contractors Or Client Personn			
Date/Time Started 9/)/ Date/Time Completed 9/)/	97 97					
Depths in Reference to C	Around Surfa	aCe Depth		Top of Protective Top of Riser (si Ground Surface	-	
		(feet)				<u>_/\/</u>
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						
Bottom of Well Riser						
Top of Well Screen			x x x x	Top of Seal		_NA_
Bottom of Well Screen		4				
Top of Peltonite Seal					Pook	N/- A -
Bottom of Peltonite Seal				Top of Graver		_ <u>N</u> A3_3
Top of Gravel Pack	<u></u>			τορ οι screen		
Bottom of Gravel Pack		+				
Top of Natural Cave-In	<u> </u>					
Bottom of Natural Cave-In						
Top of Groundwater		_		Bottom of Scre		38
Total Depth of Borehole				Bottom of Bor	suole	
Comments PH3 is 45				Installe		-
well of the	ampled !	(CMC 31	1). Pushe	& Wellet	3' Par	+ bottom

El Paso Natural Gas Company
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Page ______of _____

# 24.324 PIT UIDSUFE Project	oiect		รษ: ช3				HEQUESTED ANALTSIS		
	4	DATE: 8-28-97	TAL NUMB BMUN JAT BNIATNOD	SAMPLE TYPE	H4 1.814	3 PID 8020 15X		# пеисе	
	MATRIX	FIELD ID	10. 10					seo	REMARKS
970938 8/28 1052	B	DRC 41		B		X		30	TRIP BLANK
97093 9 8128 1105	3	DEC 42	2	R		×		30	COLDIRON COM A # 1-73551
8/28 1348	Z	DRC 43	0	K		×		3/)
			D		┨				Dc.
									26/32/2
									MECEIVE
				/					101 SEP - 9 397
				/	/				
								/	
RELINQUISHED BY: (Signature)	DATE/TIME	TIME RECEIVED BY: (Signature)	ignature)	-	ar .	ELINQUISHED	RELINQUISHED BY: (Signature)		DATE/TIME RECEIVED BY: (Signature)
	28/17	8/28/97 1515				an.	an (r	lliand	:15
RELINOUISHED BY: (<i>Signature</i>)	DATE/TIME	TIME RECEIVED BY: (Signature)	Signature)		<u> </u>	IELINQUISHE	RELINQUISHED BY: (Siynature)		9/29/29/2015 Marten Received of Lagoratory BY: (Signature)
REQUESTED TURNAROUND TIME:		SAMPLE RECEIPT REMARKS	T REMARKS					RESULTS & INVOICES T	
									EL PASO NAI UHAL GAS COMPANY P. O. BOX 4990 EA DMINCTON NEW MEYICO 87490
		CHARGE CODE					Ω Ω	505-599-2144	

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

FM-08-0565 A (Rev. 05-94)



FIELD SERVICES LABORATORY **ANALYTICAL REPORT**

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC41	970938
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/28/97	1052
PROJECT:	We	Il Points
DATE OF BTEX EXT. ANAL.:	8/29/97	8/29/97
TYPE DESCRIPTION:	Trip Blank	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS		
			DF Q		
BENZENE	<1	РРВ			
TOLUENE	<1	РРВ			
ETHYL BENZENE	<1	РРВ			
TOTAL XYLENES	< 3	РРВ			
TOTAL BTEX	< 6	РРВ			

102.6

--BTEX is by EPA Method 8020 --

% for this sample All QA/QC was acceptable.

The Surrogate Recovery was at DF = Dilution Factor Used

Tentela 9-8-97 Approved By: Date: 970938TripBlankBTEX,9/3/97



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

FIT CLOSURE FROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC42	970939
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/28/97	1105
PROJECT:	We	ll Points
DATE OF BTEX EXT. ANAL.:	8/29/97	8/29/97
TYPE DESCRIPTION:	PZ-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIFIE	RS	
			DF	0	t pri tak	·
BENZENE	7.57	РРВ	2	D		
TOLUENE	334	РРВ	2	D		
ETHYL BENZENE	263	РРВ	2	D		
TOTAL XYLENES	2030	РРВ	5	D		
TOTAL BTEX	2634	РРВ	[

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at ______% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

tolidarde Date: _ 9-8-97 Approved By: 970939BTEX,9/3/97



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC43	970940
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/28/97	1348
PROJECT:	We	Il Points
DATE OF BTEX EXT. ANAL.:	8/29/97	8/29/97
TYPE DESCRIPTION:	PZ-2	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS	
			DF Q	
BENZENE	13.8	РРВ		
TOLUENE	<1	РРВ		
ETHYL BENZENE	8.96	РРВ		
TOTAL XYLENES	25.1	РРВ		
TOTAL BTEX	48	РРВ		

--BTEX is by EPA Method 8020 --

% for this sample All QA/QC was acceptable.

The Surrogate Recovery was at 99.4 DF = Dilution Factor Used

John Farch Date: 9-8-97 Approved By: 970940BTEX,9/3/97



QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 970931 to 970933, 970938 to 970943

QA/QC for 8/29/97 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE		EXPECTED	ANALYTICAL		ACC	EPTAB	E
NUMBER	TYPE	RESULT	RESULT	%R			
ICV LA-52589		PPB	PPB			YES	NO
50 PPB			이 가는 가방과 유명이 있다. 이 제가 가장 감정이 있다.		RANGE		
Benzene	Standard	50.0	49.9	99.9	75 - 125 %	Х	
Toluene	Standard	50.0	49.6	99	75 - 125 %	Х	
Ethylbenzene	Standard	50.0	49.5	99	75 - 125 %	Х	
m & p - Xylene	Standard	100	99.1	99.1	75 - 125 %	Х	
o Xylene	Standard	50.0	49.2	98	75 - 125 %	X	
SAMPLE		EXPECTED	ANALYTICAL		AC	СЕРТАВ	LE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
LCS LA-45476		PPB	PPB			YES	NO
25 PPB					RANGE		
Benzene	Standard	25.0	25.6	102.2	39 - 150	Х	<u> </u>
Toluene	Standard	25.0	25.6	102	46 - 148	х	
Ethylbenzene	Standard	25.0	25.3	101	32 - 160	х	
m & p - Xylene	Standard	50.0	50.8	102	Not Given	х	
o - Xylene	Standard	25.0	25.5	102	Not Given	X	
SAMPLE		EXPECTED	ANALYTICAL	4	ACO	CEPTAB	LE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
CCV LA-52589		PPB	РРВ	:		YES	NO
50 PPB					RANGE		
Benzene	Standard				75 - 125 %	X	
T - I		50.0	50.5	101.0	10-120 /0	^	
Toluene	Standard	50.0 50.0	50.5 49.8	101.0 99.6		x	
l oluene Ethylenzene	Standard Standard						
	(50.0	49.8	99.6	75 - 125 %	х	
Ethylenzene	Standard	50.0 50.0	49.8 49.7	99.6 99.4	75 - 125 % 75 - 125 %	x x	
Ethylenzene m & p - Xylene	Standard Standard	50.0 50.0 100	49.8 49.7 99.5	99.6 99.4 99.5	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X	
Ethylenzene m & p - Xylene o - Xylene	Standard Standard	50.0 50.0 100 50.0	49.8 49.7 99.5 49.7	99.6 99.4 99.5	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	x x x x	LE
Ethylenzene m & p - Xylene o - Xylene SAMPLE	Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED	49.8 49.7 99.5 49.7 ANALYTICAL	99.6 99.4 99.5 99	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	x x x x	LE NO
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER	Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT	49.8 49.7 99.5 49.7 ANALYTICAL RESULT	99.6 99.4 99.5 99	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X X CEPTAB	
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589	Standard Standard Standard TYPE	50.0 50.0 100 50.0 EXPECTED RESULT	49.8 49.7 99.5 49.7 ANALYTICAL RESULT	99.6 99.4 99.5 99	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % AC	X X X X CEPTAB	
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB	Standard Standard Standard TYPE	50.0 50.0 100 50.0 EXPECTED RESULT PPB	49.8 49.7 99.5 49.7 ANALYTICAL RESULT PPB	99.6 99.4 99.5 99	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC	X X X CEPTAB	
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB Benzene	Standard Standard Standard TYPE Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB 50.0	49.8 49.7 99.5 49.7 ANALYTICAL RESULT PPB 50.3	99.6 99.4 99.5 99 %R 100.6	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC RANGE 75 - 125 %	X X X CEPTAB YES	
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB Benzene Toluene	Standard Standard Standard TYPE Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB 50.0 50.0	49.8 49.7 99.5 49.7 ANALYTICAL RESULT PPB 50.3 49.3	99.6 99.4 99.5 99 %R 100.6 98.7	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC RANGE 75 - 125 % 75 - 125 %	X X X CEPTAB YES X X	

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID 970943	ТҮРЕ	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	A(RANGE	CCEPTAB YES	LE NO
Benzene	Matrix Duplicate	3.8	3.9	2.25	+/- 20 %	X	
Toluene	Matrix Duplicate	<1	1.0	200.00	+/- 20 %		Х
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	Х	
m & p - Xylene	Matrix Duplicate	3.59	3.7	3.64	+/- 20 %	Х	
m & p - Xylene o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X	

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE	SPIKE ADDED	SAMPLE RESULT	SPIKE SAMPLE	%R	AC	CEPTAE	BLE
2nd Analysis 970943	PPB	PPB	RESULT PPB		RANGE	YES	NO
Benzene	50	3.8	54.4	101.2	75 - 125 %	Х	
Toluene	50	< 1	51.6	103	75 - 125 %	Х	
Ethylbenzene	50	< 1	50.5	101	75 - 125 %	Х	
m & p - Xylene	100	3.59	103.7	100.1	75 - 125 %	Х	
o - Xylene	50	< 1	50.1	100	75 - 125 %	<u> </u>	

Narrative: Acceptable

AUTO BLANK	SOURCE	РРВ	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	РРВ	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION	SOURCE	PPB	STATUS
CARRYOVER CHECK		(None analyzed with this set)	
Benzene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	< 3.0	ACCEPTABLE

Narrative: Acceptable.

TRIP	SOURCE	РРВ	STATUS
BLANK		(None analyzed with this set)	t
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

Approved By: John Fallh

Date: 9-8-97

Reported By: _____

	· · ·			-	WE	WELL POINTS"	"ZTN		
E Paso Natural Gas Company		0	HAIN	OF CI	ISTOD	CHAIN OF CUSTODY RECORD	JRD		Pageof
PROJECT NUMBER PROJECT NAME # 24324 Dit Closure Project		ਤਬ: ਬਤ			REQU	REQUESTED ANALYSIS	ALYSIS		CONTRACT LABORATORY P. O. NUMBER
	DATE: 8-29-97	TAL NUMB	algmaz Type	1.814 Hq	/ 8050 LEX	019 8		# пеисе	
LABID DATE TIME MATRIX	FIELD ID	-10 10		Т ДЧЭ	Eb∀ .8			SEQI	REMARKS
970948 8/24 1121 B D	DRC 44	-	B		X			32	TRIP BUANK
8/29 1330 W	0RC 45	Ч	VG		$\boldsymbol{\times}$			37	COLDIEON CUM 4 # 1-73551 (PH-1)
8/29 1430 W	DRC 46	4	V6-		\times			33	11 (PH-2)
					<u></u>				
									11 SEP 1 2 1321
	RECEIVED BY: (Signature)	nature)		- · · ·			÷	, United	0//3/9711130
RELINQUISHED BY: (Signature) DATE/TIME	RECEIVED BY: (Signature)	(nature)			HELINOUIS	HELINOUISHED BY: (Suprature)		ſ	9 DATE/TIME RECEIVED OF LABORATORY BY: (Signal Jre)
REQUESTED TURNAROUND TIME:	SAMPLE RECEIPT REMARKS	REMARKS					RESUL	TS & INVO	
1.	The second s								EL PASO NATURAL GAS COMPANY P. O. BOX 4990
BILL NO.:	CHARGE CODE						505-59	505-599-2144	FARMINGTON, NEW MEXICO 87499 FAX: 505-599-2261
L Mhite - Testing Laboratory Canary - EPNG Lab Pink - Field Sumpler	d Sampler								FM-08-0565 A (Rev. 05-94)



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC44	970948
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/29/97	1121
PROJECT:	We	ll Points
DATE OF BTEX EXT. ANAL.:	9/3/97	9/3/97
TYPE DESCRIPTION:	Trip Blank	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIF	IERS
			DF	<u>0</u>	
BENZENE	<1	РРВ			
TOLUENE	<1	РРВ			
ETHYL BENZENE	<1	РРВ			
TOTAL XYLENES	< 3	РРВ			
TOTAL BTEX	<6	РРВ			

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--BTEX is by EPA Method 8020 --

% for this sample All QA/QC was acceptable.

The Surrogate Recovery was at DF = Dilution Factor Used

Narrative:

Approved By:

Date: <u>9-8-97</u>

970948WellSiteTripBlank,9/8/97



FIELD SERVICES LABORATORY ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DRC45	970949
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/29/97	1230
PROJECT:	We	Il Points
DATE OF BTEX EXT. ANAL.:	9/3/97	9/3/97
TYPE DESCRIPTION:	PH-1	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIF	IERS	
			DF	0	nisister Normanignation	
BENZENE	552	РРВ	25	D		
TOLUENE	892	РРВ	25	D		
ETHYL BENZENE	762	РРВ	25	D		
TOTAL XYLENES	9380	РРВ	25	D	_	
TOTAL BTEX	11586	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 97.1 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

John Forth Date: 9-8-97 Approved By: 970949WellPoint,9/8/97



FIELD SERVICES LABORATORY ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab iD
SAMPLE NUMBER:	DRC46	970950
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	8/29/97	1420
PROJECT:	We	II Points
DATE OF BTEX EXT. ANAL.:	9/3/97	9/3/97
TYPE DESCRIPTION:	PH-2	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIFI	ERS	
			DF	0		
BENZENE	579	РРВ	25	D		
TOLUENE	1120	РРВ	25	D		
ETHYL BENZENE	775	РРВ	25	D		<u></u>
TOTAL XYLENES	8660	РРВ	25	D		
TOTAL BTEX	11134	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at ______95.9 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

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Approved By:	John Hollen 970950BtexWe	Date:	9-8-97	



EL PASO FIELD SERVICES

> QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 970946 to 970950

QA/QC for 9/03/97 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE		EXPECTED	ANALYTICAL		ACC	СЕРТАВ	LE
NUMBER	ΤΥΡΕ	RESULT	RESULT	%R			
ICV LA-52589		PPB	РРВ			YES	NO
50 PPB					RANGE	•	•
Benzene	Standard	50.0	48.0	96.0	75 - 125 %	Х	
Toluene	Standard	50.0	47.6	95	75 - 125 %	Х	
Ethylbenzene	Standard	50.0	47.6	95	75 - 125 %	Х	
m & p - Xylene	Standard	100	95.5	95.5	75 - 125 %	Х	
o - Xylene	Standard	50.0	47.3	95	75 - 125 %	X	<u></u>
SAMPLE		EXPECTED	ANALYTICAL		AC	CEPTAE	BLE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
LCS LA-45476		PPB	PPB			YES	NO
25 PPB		an a	alatek († 1997) Geografie		RANGE		
Benzene	Standard	25.0	24.3	97.1	39 - 150	Х	
Toluene	Standard	25.0	24.1	96	46 - 148	Х	
Ethylbenzene	Standard	25.0	23.9	96	32 - 160	Х	
m & p - Xylene	Standard	50.0	48.2	96	Not Given	Х	
o - Xylene	Standard	25.0	24.5	98	Not Given	X	
SAMPLE		EXPECTED	ANALYTICAL		ACC	CEPTAB	LE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
CCV LA-52589		PPB	PPB			YES	NO
50 PPB					RANGE		
Benzene	Standard	50.0	48.9	97.7	75 - 125 %	Х	
Toluene	Standard	50.0	48.2	96.3	75 - 125 %	Х	
Ethylenzene	Standard	50.0	47.9	95.8	75 - 125 %	Х	
m & p - Xylene	Standard	100	96.1	96.1	75 - 125 %	Х	
o - Xylene	Standard	50.0	47.9	96	75 - 125 %	Х	
SAMPLE		EXPECTED	ANALYTICAL		AC	CEPTAE	BLE
NUMBER	ТҮРЕ	RESULT	RESULT	%R		•	
CCV LA-52589		PPB	РРВ			YES	NO
50 PPB					RANGE		
Benzene	Standard	50.0	48.2	96.3	75 - 125 %	Х	
Toluene	Standard	50.0	47.6	95.2	75 - 125 %	Х	
Ethylbenzene	Standard	50.0	47.3	94.6	75 - 125 %	Х	
m & p - Xylene	Standard	100	94.9	94.9	75 - 125 %	Х	
in och - viene	Otandara	100	-	1		• •	

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE ID 970946	ТҮРЕ	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	AC RANGE	CEPTABLE YES NO
Benzene	Matrix Duplicate	44.3	45.1	1.87	+/- 20 %	X
Toluene	Matrix Duplicate	128.5	131.0	1.87	+/- 20 %	Х
Ethylbenzene	Matrix Duplicate	20.77	21.38	2.90	+/- 20 %	Х
m & p - Xylene	Matrix Duplicate	159.11	163.1	2.45	+/- 20 %	Х
m & p - Xylene o - Xylene	Matrix Duplicate	25.08	<u>2</u> 5.93	3.35	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE	SPIKE	SAMPLE	SPIKE		AC	CEPTABL	E
ID	ADDED	RESULT	SAMPLE	%R		1. · · ·	
2nd Analysis	PPB PPB	PPB	RESULT			YES	NO
970946			PPB		RANGE	· · · · · · · · · · · · · · · · · · ·	
Benzene	50	44.3	91.0	93.4	75 - 125 %	Х	
Toluene	50	128.5	174.6	92	75 - 125 %	Х	
Ethylbenzene	50	20.8	67.9	94	75 - 125 %	Х	
m & p - Xylene	100	159.1	253.9	94.8	75 - 125 %	X	
o - Xylene	50	25.1	70.9	92	75 - 125 %	X	

Narrative: Acceptable

	AUTO BLANK	SOURCE	РРВ	STATUS
	Benzene	Boiled Water	<1.0	ACCEPTABLE
	Toluene	Boiled Water	<1.0	ACCEPTABLE
	Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
	Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

	SOURCE	РРВ	STATUS
SOIL VIAL BLANK	Lot MB1461	(2 analyzed with set)	
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	< 3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (None analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	< 1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

TRIP BLANK	SOURCE	PPB (None analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

Reported By: _____

Approved By: Aun Hablen: Date: 9-11-97

00Water090397

El ISO Natural Gas Company	Well POINTS CHAI	50		OF CL	T CHAIN OF CUST UDY RECORD	, RECO	ВD		of Jon
PROJECT NUMBER PROJECT NAME # 24324 Pit Closure Project		ਤਸਤ ਸੁਤ			REQUE	REQUESTED ANALYSIS	ALYSIS		CONTRACT LABORATORY P. O. NUMBER
DATE TIME MATRIX		TOTAL NUMB OF CONTAINE	SAMPLE TYPE	Н9Т Г.814 А9З	BTEX BTEX	ראם פוס		# зеолеисе	REMARKS
9709539/2/97 - Wath Tri	Trip Blank	- ~	<u>7</u> B V6						Trip Blank Colling ComA#1 73551 PH3
AC 9/3/97	CMC 742	0	×		\mathbf{k}				11 PHH
970954 1440 CN	CMC 342	~	V6		>				Johnston Feday Tolgy PHI
									Note: Septums are coming
									oft of the bottles. They
		5							have a clay consistency
		7		$\hat{\mathbf{x}}$	- - 			-	1
				1	1 V	-/			38° F
							/	1	
RELINQUISHED BY: (Signature) DATE/TIME	RECEIVED BY: (Signature)	lature)		1	RELINOUISHED BY: (Signature)	ED BY: (Sig	nature)		DATE/TIME RECEIVED BY (Sunature)
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RELINGUISHED BY: (Signature) DAIE/IME	HECEIVED BY: (Signature)	valure)			RELINOUISHED EIY. (<i>Signature</i>)	ED fiY. (<i>Si</i> ų	(empu		9/4/97 1000 11/aula BY: (Signature)
REQUESTED TURNAROUND TIME: CONTINE CORDIENCE CARRIER CO.	SAMPLE RECEIPT REMARKS	REMARKS					RESULT	S & INVO	RESULTS & INVOICES TO: FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY
	CHARGE CODE								P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499
BILL NO.:							505-599-2144	9-2144	FAX: 505-599-2261
White . Testion Laboratory Canary - EPNG Lab Pink - Field Sumpler	rapter								FM-08-0565 A (Rev. 05-94)

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Well Points



FIELD SERVICES LABORATORY **ANALYTICAL REPORT**

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	Trip Blank	970952
MTR CODE SITE NAME:	73551	Coldiron Com. A #1
SAMPLE DATE TIME (Hrs):	9/3/97	1100
PROJECT:	Well	Points
DATE OF BTEX EXT. ANAL.:	9/9/ 97	9/9/97
TYPE DESCRIPTION:	Trip Blank	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIF	IERS	
			DF	0		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	РРВ				
TOTAL XYLENES	< 3	РРВ		<u>.</u>		
TOTAL BTEX	< 6	PPB				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 113.7 % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

N	la	rri	at	iv	e	:	

John Latch. Approved By:

Date: 9-17-97

970952BTEXWPTB,9/16/97

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC341	970953
MTR CODE SITE NAME:	73551	Coldiron Com. #1
SAMPLE DATE TIME (Hrs):	9/3/97	1100
PROJECT:	Well	Points
DATE OF BTEX EXT. ANAL.:	9/9/97	9/9/97
TYPE DESCRIPTION:	PH-3	Water

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS		QUALIF	IERS	
			DF	0		[
BENZENE	5.02	РРВ				
TOLUENE	47.8	РРВ				
ETHYL BENZENE	15.4	РРВ				· ·
TOTAL XYLENES	7.93	РРВ				
TOTAL BTEX	76	РРВ				

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at <u>118.7</u>% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

John Laden

Narrative:

Approved By:

Date: <u>9-17-97</u>

BTEXWellPointTemplate,9/16/97



QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 970952 to 970960

QA/QC for 9/9/97 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

341

SAMPLE		EXPECTED	ANALYTICAL	ц	ACC	EPTAB	LE
NUMBER	TYPE	RESULT	RESULT	%R			
ICV LA-52589		PPB	PPB			YES	NO
50 PPB					RANGE		
Benzene	Standard	50.0	53.0	105.9	75 - 125 %	Х	
Toluene	Standard	50.0	52.5	105	75 - 125 %	Х	
Ethylbenzene	Standard	50.0	52.1	104	75 - 125 %	Х	
m & p - Xylene	Standard	100	104.7	104.7	75 - 125 %	Х	
o - Xylene	Standard	50.0	52.0	104	75 - 125 %	X	
SAMPLE		EXPECTED	ANALYTICAL		AC	CEPTAB	ILE
NUMBER	TYPE	RESULT	RESULT	%R	-		
LCS LA-45476		PPB	PPB [®]			YES	NO
25 PPB					RANGE		
Benzene	Standard	25.0	26.9	107.7	39 - 150	Х	
Toluene	Standard	25.0	26.5	106	46 - 148	х	
Ethylbenzene	Standard	25.0	26.3	105	32 - 160	Х	
m & p - Xylene	Standard	50.0	52.4	105	Not Given	х	
o - Xylene	Standard	25.0	26.2	105	Not Given	Х	
SAMPLE		EXPECTED	ANALYTICAL		ACO	CEPTAB	LE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
CCV LA-52589		PPB	PPB			YES	NO
50 PPB		<u> </u>			RANGE		•
Benzene	Standard	50.0	53.6	107.2	75 - 125 %	Х	
Toluene	Standard	50.0	52.9	105.9	75 - 125 %	Х	
Ethylenzene	Standard	50.0	52.5	104.9	75 - 125 %	Х	
m & p - Xylene	Standard	100	104.8	104.8	75 - 125 %	Х	
o - Xylene	Standard	50.0	52.4	105	75 - 125 %	X	
SAMPLE		EXPECTED	ANALYTICAL		AC	CEPTAE	BLE
NUMBER	ТҮРЕ	RESULT	RESULT	%R			
CCV LA-52589		PPB	PPB			YES	NO
50 PPB					RANGE		
Benzene	Standard	50.0	54.4	108.9	75 - 125 %	Х	
DUILLOITE		1	1 50.0	107.1	75 - 125 %	V	
Toluene	Standard	50.0	53.6	107.1	10-120 /0	Х	
	Standard Standard	50.0 50.0	53.6	107.1	75 - 125 %	×	
Toluene			1	1			

Narrative: Acceptable.

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LABOHA TOHY DUPLICA I		SAMPLE	DUPLICATE		ACA	CEPTAB	E
SAMPLE	TYPE	RESULT	RESULT	RPD			
D		PPB	PPB			YES	NO
970959					RANGE		
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X	<u></u>
Toluene	Matrix Duplicate	5.4	5.3	3.28	+/- 20 %	X	
Ethylbenzene	Matrix Duplicate	1.92	1.78	7.28	+/- 20 %	X	
m & p - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	x	
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X	
Varrative: Acceptable.				0.00			
LABORATORY SPIKES:	0.011/17		CDIVE			OFDTAR	
SAMPLE	SPIKE	SAMPLE	SPIKE	0/ D		CEPTAE	ile.
ID ¹	ADDED	RESULT	SAMPLE	%R			
2nd Analysis	PPB	PPB	RESULT			YES	NO
970959			PPB		RANGE		
Benzene	50	< 1	54.9	10 9.7	75 - 125 %	Х	
Toluene	50	5.4	57.9	105	75 - 125 %	Х	
Ethylbenzene	50	1.9	52.4	101	75 - 125 %	Х	
m & p - Xylene	100	< 1	107.6	107.6	75 - 125 %	Х	
o - Xylene	50	< 1	54.0	108	75 - 125 %	Х	
Varrative: Acceptable							
AUTO BLANK	SOURCE		PPB			ST	ATUS
Benzene	Boiled Water		<1.0			ACC	PTABLE
Toluene	Boiled Water		<1.0				EPTABLE
Ethylbenzene	Boiled Water		<1.0				EPTABLE
Total Xylenes	Boiled Water		< 3.0				EPTABLE
Narrative: Acceptable.						//00	
	SOURCE		PPB		<u></u>	C 7	ATUS
SOIL VIAL BLANK	Lot MB1461		(1 analyzed w	ith cat)		31	A105
Benzene	Vial + Boiled Water		<1.0			A.C.C.	EPTABLE
Toluene	Vial + Boiled Water		< 1.0				EPTABLE
Ethylbenzene	Vial + Boiled Water		< 1.0			1	EPTABLE
Total Xylenes	Vial + Boiled Water		< 3.0			ALC	EPTABLE
Narrative: Acceptable.							
CONTAMINATION	SOURCE		PPB	• • • •		S1	ATUS
CARRYOVER CHECK		(r	None analyzed w	ith this se	t)		
Benzene	Vial + Boiled Water		< 1.0				EPTABLE
Toluene	Vial + Boiled Water		<1.0				EPTABLE
Ethylbenzene	Vial + Boiled Water		<1.0				EPTABLE
Total Xylenes	Vial + Boiled Water		< 3.0			ACC	EPTABLE
Narrative: Acceptable.							
9/8/97 TRIP BL ANK	SOURCE		PPB	· · ·		S1	ATUS
Benzene	Vial + Boiled Water		<1.0			ACC	EPTABLE
Toluene	Vial + Boiled Water		<1.0			1	EPTABLE
Ethylbenzene	Vial + Boiled Water		<1.0			E ACC	EPTABLE

Reported By: ______ Approved By: ______ Approved By: ______

Date: 9-14-97



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		COLDIRON	P 3										Date/Time	Date/Time		
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FIELD SERVICES LABORATORY

ANALYTICAL REPORT

SAMPLE IDENTIFICATION

960355
Aztec Pipeline
Coldiron A #1 MW-1
04/17/96
1113
D. Bird
04/19/96
Water

REMARKS:

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT PPB	QUALIFIER	WQCC LIMIT PPB
BENZENE	79.5	D (X10)	10
TOLUENE	464	D (X10)	740
ETHYL BENZENE	281	D (X10)	750
TOTAL XYLENES	3050	D (X10)	620
SURROGATE % RECOVERY	98.0	Allowed Ran 80 to 120 %	- 1

NOTES:

The "D" Qualifier indicates that the reported result for this analyte is calculated based on the secondary dilution factor shown.

Reported By: M

Approved By: _______

Date: 4/30/46



Field Services Laboratory

Analytical Report

SAMPLE IDENTIFICATION

EPNG LAB ID:	960355	
DATE SAMPLED:	04/17/96	
TIME SAMPLED (Hrs):	1113	
SAMPLED BY:	D. Bird	
MATRIX:	Water	
SAMPLE SITE NAME:	Aztec Pipeline	
SAMPLE POINT:	Coldiron A#1 MW-1	
METER CODE:		

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
pH	, 7.7	Units	04/17/96
Alkalinity as C0 ₃	0.0	PPM	04/17/96
Alkalinity as HC0 ₃	409	PPM	04/17/96
Calcium as Ca	453	РРМ	04/19/96
Magnesium as Mg	46	PPM	04/19/96
fotal Hardness as CaC0 ₃	1,321	PPM	04/19/96
Chloride as Cl	63	PPM	04/17/96
Sulfate as S0 ₄	2,356	PPM	04/17/96
Fluoride as F	1.5	PPM	04/19/96
Nitrate as N0 ₃ -N	<1.2	PPM	04/17/96
Potassium as K	<0.1	PPM	04/19/96
Sodium as Na	696	PPM	04/19/96
Total Dissolved Solids	4,174	РРМ	04/19/96
Conductivity	4,340	umhos/cm	04/17/96
Anion/Cation %	0.9%	%, <5.0 Accepted	04/23/96

3b Remarks:

ported By: MA

Approved By: John Falth

Date: 4/30/94



FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	960355			
LOCATION:	Aztec Pipeline			
SAMPLE SITE:	Coldiron A #1 MW-1			
METER CODE:	73551			
SAMPLE DATE:	04/17/96			
SAMPLE TIME (Hrs):	1113			
SAMPLED BY:	D. Bird			

REMARKS:

RESULTS

PARAMETER	TOTAL RESULT (mg/L)	N. M. WQCC LIMIT (mg/L)
ARSENIC	<0.025	0.100
BARIUM	<0.5	1.00
CADMIUM	< 0.0005	0.010
CHROMIUM	0.004	0.050
LEAD	< 0.004 *	0.050
MERCURY	<0.00024	0.002
SELENIUM	< 0.005	0.050
SILVER	<0.0004	0.050

NOTE: The sample results have been corrected for volume adjustment associated with Method 3015.

This analyte was detected in the associated Method Blank at a concentration of 0.011 mg/L.

References:

Method 3015, Microwave Assisted Acid Digestion of Aqueous Samples and Extracts, Test Methods for Evaluating Solid Waste, SW-846, Sept., 1994. Method 7061A, Arsenic (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992. Method 7080A, Barium (Atomic Absorption, Direct Aspiration), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1994. Method 7131, Cadmium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986. Method 7191, Chromium (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986. Method 7421, Lead (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1986. Method 245.5, Mercury (Automated Cold Vapor Technique), Methods for the Determination of Metals in Environmental Samples, EPA 600/4-91/010, USEPA, June, 1991.

thod 7741A, Selenium (Atomic Absorption, Gaseous Hydride), Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept., 1994. od 7761, Silver (Atomic Absorption, Furnace Technique), Test Methods for Evaluating Solid Waste, SW-846, USEPA, July, 1992.

Reported By: M

Approved By: Alex Holder

Date: 0/5/94



Sample ID:

960320 to 960323, 960325 to 960327, 960330 to 960334, 960340 to 960343, 960350 to 960353, 960355 to 960356, 960370 to 960373, and 960375 to 960378, 960380 & 960386

Date Reported: 05/10/96

TOTAL METALS

Analyte	Found Value (μg/L)	Known Value (μg/L)	% Recovery
Arsenic	26.2	27.0	97%
Barium	309	315	98%
Cadmium	3.06	2.90	106%
Chromium	7.09	6.70	106%
Lead	35.9	39.5	91%
Mercury	1.79	1.75	102%
Selenium	36.7	31.0	118%
Silver	3.16	3.06	103%

LABORATORY CONTROL SAMPLE

LABORATORY CONTROL SAMPLE (2nd run)

Analyte	Found Value (µg/L)	Known Value (μg/⊾)	% Recovery
Arsenic	NA	NA	NA
Barium	NA	NA	NA
Cadmium	2.76	2.90	95%
Chromium	7.34	6.70	110%
Lead	35.9	39.5	91%
Mercury	1.71	1.75	98%
Selenium	NA	NA	NA
Silver	NA	NA	NA

NA: Not Applicable. A second run was not required.

Reported By:

Jan Lelle Approved By:

Date: 19 5/96

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TOTAL METALS, DUPLICATE ANALYSIS

SAMPLE ID: 960321

Analyte	Original Sample Result (ug/L)	Duplicate Sample Result (ug/L)	% RPD
Arsenic	ND	ND	NA
Barium	ND	ND	NA
Cadmium	ND	ND	NA
Chromium	1.65	1.61	2.5%
Lead	2.3	2.1	8.2%
Mercury	ND	ND	NA
Selenium	ND	ND	NA
Silver	ND	ND	NA

SAM	rle	iD: 3i	0034	3
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Analyte	Original Sample Result (μg/L)	Duplicate Sample Result (μg/L)	% RPD
Arsenic	ND	ND	NA
Barium	ND	ND	NA
Cadmium	ND	ND	NA
Chromium	1.14	1.28	11.6%
Lead	2.4	2.1	11.7%
Mercury	ND	ND	NA
Selenium	ND	ND	NA
Silver	ND	ND	NA

SAMPLE ID: 960375

	Analyte		Original Sample Result (μg/L)	Duplicate Sample Result (μg/L)	% RPD
	Arsenic		ND	ND	NA
	Barium	1	1.15	1.12	2.6%
	Cadmium		0.56	0.55	1.8%
*	Chromium		29.1	29.0	0.3%
	Lead		12.1	13.3	9.4%
	Mercury		ND	ND	NA
	Selenium		ND	ND	NA
	Silver		ND	ND	NA

Analyte Not Detected at stated detection level.

NA: Not Applicable.

Reported By: 191

Approved By: Ven Jedol

Date: 10/5/96 (2)



TOTAL METALS, SPIKE ANALYSIS

SAMPLE ID: 960321

	Original	Spike	tate de la casa de la c	
Analyte	Sample Result	Sample Result	Spike Added	Recovery Percent
Arsenic	<u>(μg/L)</u> ND	(µg/L) 47.4	45.5	104%
Barium	236	1098	959	92%
Cadmium	ND	8.12	9.59	85%
Chromium	1.65	51.9	45.5	108%
Lead	ND	37.3	45.5	82%
Mercury	ND	1.94	2.00	97%
Selenium	ND	9.64	9.60	100%
Silver	ND	43.0	45.5	95%

SAMPLE ID: 960343

Analyte	Original Sample Result (µg/L)	Spike Sample Result (μg/L)	Spike Added	Recovery Percent
Arsenic	ND	53.7	45.5	118%
Barium	166	1102	959	99%
Cadmium	ND	9.33	9.60	96%
Chromium	1.14	39.8	45.5	85%
Lead	ND	40.0	45.5	88%
Mercury	ND	1.92	2.00	96%
Selenium	ND	10.3	9.60	108%
Silver	ND	36.0	45.5	79%

SAMPLE ID: 960375

An	alyte	Original Sample Result (μg/L)	Spike Sample Result (µg/L)	Spike Added	Recovery Percent
Ars	enic	8.5	55.3	45.5	105%
Ba	rium	1036	1889	959	99%
Cad	mium	0.42	11.1	9.60	112%
Chro	mium	29.1	59.5	45.5	73%
Le	ead	10.9	38.1	45.5	62%
Me	rcury	ND	2.03	2.00	101%
Sele	enium	ND	9.47	9.60	99%
Sil	ver	ND	39.1	45.5	86%

NOTE: Spike recoveries for Cr and Pb for Sample 960375 are below acceptance criteria due to matrix interference.

Reported By: M

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Approved By:

Date:_



TOTAL METALS, METHOD BLANK ANALYSIS

04/24/96 METHOD BLANK

Analyte	Found Value (ug/L)	Detection Level (ug/L)
Arsenic	ND	25
Barium	ND	500
Cadmium	ND	0.5
Chromium	ND	1
Lead	ND	4
Mercury	ND	0.24 *
Selenium	ND	5
Silver	ND	0.4

04/25/96 METHOD BLANK

	Analyte		Found Value (µg/L)	Detection Level (µg/L)
Y	Arsenic		ND	25
	Barium	;	ND	500
	Cadmium		ND	0.5
	Chromium		ND	1
	Lead		11	4
	Mercury		ND	0.24 *
	Selenium		ND	5
	Silver		ND	0.4

ND: Not Detected at stated detection level.

NA: Not Applicable.

NOTE: All detection levels except Hg are 5X MDL.

Approved By:

Hg detection level is based on a Practical Quantitation Level (PQL) of 10X MDL.

Reported By:_

John Lerde

10/5/96 Date: Gin



MEMORANDUM

To: John Lambdin

From: Dennis Bird

Date: May 8, 1996 Place: Laboratory Services

Subject: Aztec Pipeline Pit Monitor Well

On Wednesday, April 17, 1996, I went to the Aztec Pipeline and sampled the following pit monitor well. The following analytical parameters are to be performed on this groundwater sample: BTXE, 8 RCRA Metals, General Chemistry to include Nitrate as NO3 and Dissolved Oxygen. The samples were assigned the laboratory numbers 960355 to 960356. The dissolved oxygen results were taken at the time of sampling with a ChemMets kit. A field duplicate was also collected on this well. The Field Service Laboratory will be performing all of the analysis.

The following information was collected on this well.

Well	Monitor	Pipe	Static	Total	Gallons	Dissolved
Name	Well#	ID	Level	Depth	Bailed	Oxygen
960 355 Coldiron A	#1 MW-1	4"	37.78'	45.24'	20.0	1.5 ppm

All bailing and sampling was done with disposable, one time use equipment and bottles. All samples were preserved on ice immediately after collection. The static level and total depth was measured from the top of the pipe.

Should you have any question or comments, please let me know.

Dennis P. Bird

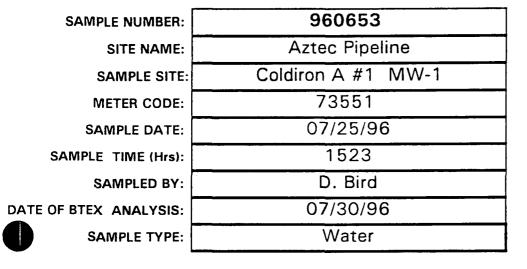
cc: Nancy Prince Sandra Miller

ingle 4 - 2 md Qte Qte De Landon A 2595 CHAIN OF CUSTODY RECORD	CTEC PIDELINE Type Requested Edia Date: 7-35-36 Analysis Edia Date: 7-35-36 No. Edia Date: 7-35-36 No. Sample No. No. Sample Number ers	96653 6-2 × Colu		Date/Time Received by: (Signature) Relinquished by: (Signature) Date/Time Received by: (Signature) スピア人 / イイ Date/Time Received by: (Signature) Date/Time Received by: (Signature) Date/Time Received by: (Signature) Date/Time Received by: (Signature)	Date/Time Received for Lgboratory by: (Signature) Date/Time Remarks: Date/Time 7 Date/Time Remarks:
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FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION



REMARKS:

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT PPB	QUALIFIER	WQCC LIMIT PPB
BENZENE	14.6	· · · · · · · · · · · · · · · · · · ·	10
TOLUENE	139		740
ETHYL BENZENE	54.1		750
TOTAL XYLENES	581	D (x2)	620
SURROGATE % RECOVERY	99.7	Allowed Ra 80 to 120	-

NOTES:

"D" Qualifier indicates that the reported result for this analyte is calculated based on the secondary dilution factor shown.

Reported By: mda

Approved By: John John

Date: 8/4/9/

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	Iments PH Mater Do Monitor Conductivity Meter Conductivity Met	Commenta	MEUL. Date Styl96
	Meter Neter CD	Dissolved Oxygen Mg/L	W 52
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ing Data Well Number <u>MW</u>	_	стренации СС 20,1 20,1 20,1 20,1 21,4	
Well Development and Purging Data	Galions to be Removed	Product Volume Removed (gallons) Increment Cumulative	STRONS HI Data ZZS-96 Reviewer
	Gallons	a la	<i>K</i> .
Well Deve		Water Volume Removed (gal Increment Cum S.O S.O </td <td>5468</td>	5468
-	Water Volume C, Initial Depth of Well (feet) Initial Depth to Water (feet) Height of Water Column in Diameter (inches): Well Well Casing Gravel Pack Drilling Fluids Total	Ending Water Depth (feet)	Ben
*	nefer	Ditake (feet) (feet)	DROCAN W Bin
V A #1	ia Imea of Water Removel dicator Parametera Saller Baller Double Check Valve Stainless-steel Kemmerer	Removal (gal/min)	1108
EL PASO FIELD SERVICES	Development Criteria X 3 to 5 Casing Volumes of Water Removel Stabilization of Indicator Parameters Other Ballor Centrifugal X Ballor Ballor Double Check Valv Perintalitic Stainless-steel Ken	Pump Bailer Pump Bailer	Vor Ven
ASO FIELD SERVI	other Stabilization - Other Pump Centrifugal Submersible Peristatic	Emoval Time P (438) (457) (1967)	G. 13 Signature
EL PASO FIELD SERVICES	Development Criteria Stabilization of Indica Stabilization of Indica Other Developrr Pump Centriugal Submersible Peristatic	Vvater Kemoval Data Date Time Devel ア-25-98 (4-31 ア-25-98 (4-37 ア-25-98 (4-47) ア-25-98 (4-47) ア-25-98 (4-47)	Comments G. / Developer's Signature

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AEN I.D. 607361

UG 1996

Imerican Environmental Network, Inc.

August 6, 1996

El Paso Field Service Company P.O. Box 4990 Farmington, NM 87499

Project Name/Number: COLDIRON A#1 MW-1 (NONE)

Attention: John Lambdin

On 07/26/96, American Environmental Network (NM), Inc., (ADHS License No. AZ0015) received a request to analyze aqueous sample(s). The sample(s) 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.

All analyses were performed by American Environmental Network (FL) Inc., 11 east East Olive Road, Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR:ft

Enclosure

H. Mitchell Rubenstein, Ph.D. General Manager

CLIENT PROJECT # PROJECT NAME	:EL PASO FIEL :(NONE) :COLDIRON A#1		DATE RECEIVED	:07/26/96
		AEN ID: 6073	61	
	AEN ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	607361-01	960653	AQUEOUS	07/25/96
		Ebuston Fol # 592: Motor (Colo # 592: CGLDIRON A	32 73551	
		LGLDIRON A	<i>⊢₩</i>	
		6nw-1		
			× 2, 1911;	

---TOTALS---

<u>MATRIX</u> AQUEOUS <u>#SAMPLE(S)</u> 1

AEN STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

"FINAL REPORT FORMAT - SINGLE"

Accession: Client: Project Number: Project Name: Project Location: Test: Analysis Method: Extraction Method: Matrix: QC Level:	608016 AMERICAN ENVIRON 607361 N/S N/S POLYNUCLEAR AROM 8310/Test Method 3510/Test Method WATER II	ATICS BY 8310) ing Solid and	i Haz Wa	ste, SW- ste, SW-	846, 3rd Ed. 846, 3rd Ed.
Lab Id: Client Sample Id:	001 607361-01		Sample Date Received Da		25-JUL- 27-JUL-	
Batch: PAW134 Blank: A	Dry Weight 3:	N/A	Extraction Analysis Da			
Parameter:		Units:	Results:	Rpt Lm	ts: Q	:
ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (a) ANTHRACENE BENZO (a) PYRENE BENZO (b) FLUORANTHEN BENZO (c) A, i) PERYLEN BENZO (c) A, i) PERYLEN DIBENZO (c) A, i) ANTHRAC FLUORANTHENE FLUORENE INDENO (1, 2, 3-cd) PYN NAPHTHALENE PHENANTHRENE PYRENE 1-METHYLNAPHTHALENN 2-METHYLNAPHTHALENN - CHLOROANTHRACENE ANALYST	NE VE CENE RENE	UG/L UG/L UG/L UG/L UG/L UG/L UG/L UG/L	ND ND ND ND ND ND ND ND ND ND ND 27 ND ND S2 31 107 BV	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

Comments:

"Method Report Summary"

Project Number: Project Name: Project Location: 1	608016 AMERICAN ENVIRONMENTAL NETWORK OF NEW 607361 N/S N/S POLYNUCLEAR AROMATICS BY 8310	MEXICO	
Client Sample Id:	Parameter:	Unit:	Result:
607361-01	NAPHTHALENE 1 -METHYLNAPHTHALENE 2 -METHYLNAPHTHALENE	UG/L UG/L UG/L	27 52 31
	TUTAL	16/1	110

	"QC Report"		
Title: Water Bla	nk		
Batch: PAW134 Analysis Method: B310/Test Extraction Method: 3510/Test	Methods for Evalua Methods for Evalua	ting Solid ting Solid	and Haz Waste, SW-846, 3rd Ed. and Haz Waste, SW-846, 3rd Ed.
Blank Id: A Date Analyzed	: 30-JUL-96 Date	Extracted	: 29-JUL-96
Parameters:	Units:	Results:	Reporting Limits:
ACENAPHTHENE	UG/L	ND	1
ACENAPHTHYLENE	UG/L	ND	1
ANTHRACENE	UG/L	ND	1
BENZO(a) ANTHRACENE	UG/L	ND	1
BENZO(a) PYRENE	UG/L	ND	1
BENZO (b) FLUORANTHENE	UG/L	ND	1
BENZO(g,h,i)PERYLENE	UG/L	ND	1
BENZO (K) FLUORANTHENE	UG/L	ND	1
CHRYSENE	UG/L	ND	
DIBENZO (a, h) ANTHRACENE	UG/L	ND	
FLUORANTHENE	UG/L	ND	1
FLUORENE	UG/L	ND	1
INDENO(1,2,3-cd) PYPENE	UG/L	ND	
NAPHTHALENE	UG/L	ND	
PHENANTHRENE	UG/L	ND	1
PYRENE	UG/L	ND	1
1-METHYLNAPHTHALENE	UG/L	ND	1
2-METHYLNAPHTHALENE	UG/L	DND	28-138
2 - CHLOROANTHRACENE	*REC/SURR	2 2	20-130
ANALYST	INITIALS	JBT	

Comments:

Sliviac

			"QC R	eport"								
Title: Batch: Analysis Method: Extraction Method:	Water Rea PAW134 8310/Test 3510/Test	- Methods	for Eval for Eval	uating uating	Solid Solid	and H and H	laz W laz W	laste, laste,	SW-I Sia-I	846, 846,	3rd 3rd	Ed. Ed.
	Analyzed: Analyzed:	30-JUL-9 30-JUL-9						xtrac Extra			- JUL -	-
Parameters: ACENAPHTHYLENE BENZO(k) FLUORANTHE CHRYSENE PHENANTHRENE PYRENE	NE	Spike Added 10.0 10.0 10.0 10.0 10.0	Samp1 Conc <1 <1 <1 <1 <1 <1	e RS Con 8.9 9.7 9.7 9.2 8.8) ,	RS %Rec 89 97 97 92 88	RSD Conc 3.4 9.7 9.6 9.0 3.7	:	RSD %Rec 84 97 96 90 87	RPD 6 0 1 1 1	RPD Lmts 46 30 29 28 26	Rec Lmts 46-110 58-128 62-129 61-116 62-120
Surrogates: 2-Chloroanthracene						98			9 9			28-138

Comments:

1 1

Notes:

S: N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED CUT UG/L = PARTS PER EILLION. < = LESS THAN REPORTING LIMIT. * = VALUES OUTSIDE CF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

J' 3/12 5%

Title: Water Mat Batch: PAW134 Analysis Method: 8310/Test Extraction Method: 3510/Test	Methods f	*QC Repo or Evaluat or Evaluat	ing Soli	d and d and	Haz Wast Haz Wast	e, SW- e, SW-	846, 846,	3rd 3rd	Ed. Ed.
Dry Weight %: N/A Sample Spiked: 608008-5	MS Date	Analyzed: e Analyzed	30-JUL	- 96	MS Dat	e Extr	acte	d: 2	9-JUL-96 9-JUL-96
Sample Spiked: 506008-5		Sample	MS	MS	MSD MSD	MSD	2000	RPD	Rec
Parameters:	Spike Added	Conc	Conc		Conc		RPD		Lmts
ACENAPHTHYLENE	10.0	9.7	30.9	212*		169*	23	42	14-135
BENZO(k) FLUORANTHENE	10.0	1.0	9.6	86	7.7	67	25	58	25-142
CHRYSENE	10.0	<1	7.8	78	6.3	63	21	51	3-176
PHENANTHRENE	10.0	6.8	15.2	84	10.5	3.		55	27-146
PYRENE	10.0	5.4	11.4	60	8.8	I	55*	47	15-157
Surrogates:									
2-CHLOROANTHRACENE				125		87			28-138

Comments:

MATRIX SPIKE/MATRIX SPIKE DUPLICATE HAD RECOVERY(S) AND/CR RPD(S) CUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE. REFER TO REAGENT SPIKE/REAGENT SPIKE DUPLICATE DATA.

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED CUT UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT. * = VALUES OUTSIDE CF QUALITY CONTROL LIMITS. SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

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Common notation for Organic reporting

N/S - NOT SUBMITTED N/A - NOT APPLICABLE D = DILUTED OUT UG = MICROGRAMS UG/L = PARTS PER BILLION UG/KG = PARTS PER BILLION. MG/M3 = MILLIGRAM PER CUBIC METER. PPMV = PART PER MILLION BY VOLUME. MG/KG = PARTS PER MILLION. MG/L = PARTS PER MILLION. < - LESS THAN DETECTION LIMIT. * - VALUES OUTSIDE OF QUALITY CONTROL LIMITS

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND - NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD - RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

ATI/GC/FID

ATI GAS CHROMATCGRAPHIC METHOD EMPLOYING DIRECT INJETICN ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

ATI/GC/FIX

ATI GAS CHROMATCGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

ATI/GC/FPD

ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

ATI/GC/PID

ATI GAS CHROMATCGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

ATI/GC/TCD

ATI GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW = STEVE WILHITE

- PAUL LESCHENSKY PL
- * ROBERT WOLFE RW
- BV - BEN VAUGHN BC
- BETH COLEMAN KS - KENDALL SMITH
- KK = KERRY KUST DWB = DAVID W. BOWERS
- RP = ROB PEREZ
- JBT JENNIFER TORRANCE

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Company:	Printed Name: Date:	Signature: Time:	RECEIVED BY:		DEALALS BIRD	VLEAUrie Chief	Signature: 2, Timey / 8/42	SAMPLED & RELINGUISHED BY: 1.									Petroleu (MOD 8 Diesel/(BTXE/N Chlorina Aromati SDWA	3015) (Gasoli ATBE ated H	Gas/D ne/BT (8020 ydroc rocart	iesel XE/MT) arbons pons (6	BE (601 602/8	MOD /8010 0201)					DATE: 12 2-75 PAGE /
Company:	Printed Manne: Date:	Signature: Time:	RECEIVED BY:	Company.	Printed Name: Date:		ne:	BELINOUISHED BY:								×	Pesticid Herbicic Base/Ne Volatile Polynuc	des (6 eutral/ Orgar dear A	Acid C Acid C ncs G romat	50) Compo C/MS ics (61	unds (624/ 0/83	8240) 10)	IS (62	5/82	(70)	ANALYSIS REQUEST		of / 10075
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ATION IS RECURRED FOR HUSH PROJECTS 172hr DO I WEEK (NORMAL) []2 WE 	PROJECT INFORMATION SAMPLE RECEIPT PROJ. NO: NO. CONTAINERS 2 PROJ. NAMECOLOLIPOAL $A^{\#}/A_{W}/$ Clustody seals $Y \mid N(W)$ PROJ. NO: Face free bit $A_{W}/A_{$	COMPANY: EL PASA FIELD SEÀPICE CO. ADDRESS: $FARLAILAISTRAL ALTRUCTUR PHONE: 235 - 577 - 2144SALL TO: 570/14/577 - 2144SAMPLEID DATE TIME MATEIX LABIDSAMPLEID DATE TIME MATEIX LABID$	Analytical Technologies, Inc., Albuquerquel NM San Diego • Phoenfx • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque [PROJECT MANAGER: , 73 4/1 / 20 4/1 / 10/1
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EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	960880
MTR CODE SITE NAME:	73551	Coldiron A #1 MW-1
SAMPLE DATE TIME (Hrs):	10/22/96	1047
PROJECT:	Sample 4 -	3rd Quarter
DATE OF BTEX EXT. ANAL.:	10/23/96	10/23/96
TYPE DESCRIPTION:	monitor well	Water

Field Remarks:

		RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIF	IERS
BENZENE	22.6	РРВ			
TOLUENE	34.8	РРВ			
ETHYL BENZENE	75.7	РРВ			
TOTAL XYLENES	608 811/2	1/10 PPB		D1	
TOTAL BTEX	713	РРВ			
ne Surrogate Recovery was at F = Dilution Factor Used ne "D1" qualifier indicates that th	109 ne analyte concentr	-BTEX is by EPA Method % for this sample ration exceeded the	Ali Qa/QC		able.
arrative:					
pproved By:		0880.XLS,10/25/96	Date:	10/29/9	٥ ال

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	MW-1 73551	l ents pH Meter DO Monitor	図 Conductivity Meter 図 Temperature Meter 図 Other <u>0, 0, C</u> 仕たか	sposal	SEPARATOR			Conductivity Dissolved	mg/L	oels	24.00	ortho KKIN	KLG7 1.0	- T - E		Septette. Icisolele
ing Data	Well Number 7	Instruments		Water Disposal	KUTZ		1	Temperature		- 6.29	6.30	0/.0	┿		++	PBON
Well Development and Purging Data	Development Development			14.7					/ Increment Cumulative							STHONG HJORDCH Data 10-22-96 Reviewer
Well Develop		Volume Calculation h of Well (feet) 4524 h to Water (feet) 2323		CUULTEEL CAINTS				Water Volume Removed (gal)	Increment Cumulativ		┾	5.0 15.0	┢╸			JHEEN. 51
	1	Water Volume Ca Initial Depth of Well (feet) Initial Depth to Water (feet)	Diameter (inches): Water	Well Casing	Gravel Pack	Unlined Flues		e Ending Water h Depth	-+						-	
ELMSO FIELD SERVICES	Site Name COL DIRON A #1	Development Criteria	Methods of Development Pump Baller Centrifucial X Rotton Value	0	Peristattic Calniess-stoel Kemmerer	ther		đ ti	Pump Bailer (gal/min)	6/0/	100/	2[0]	1038		1.1.11	ature of ny unoun 1800
EL MSO F	Site Name	Jevelopm ⊡ [X] □ □	Methods o		đ	Other	Vater Ren	Date T	_	10-22-6/		10-22-91 10	10-22-96 10			Comments C X

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EPaso Natural Eas Company HAIN OF CUSTODY RECORD	Type Type and No. Sample Sample		6-1 4-0 X Con			/			Relinquished by: (Signature)		Relinquished by: (Signature)	1/2	1747 0738	hone No. Date Results Repo	
	NETEC PIPELINE 12 Edito Date: 1-21-77	Sample Number	1100/1						Date/Time Received by: (Signature)		Date/Time Received by: (Signature)	Date/Time Received for Unboratory (Signature)	1/1/10/00 / 10 april		
0	Project No. Project Name R. 775 Samplers: (Signature)	Time Comp. (× /2/2/						gnature)	R	Heinquisned by: (Signature)	Relinquished by: (Signature)		Carrier Co:	AIL DIII 140.

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EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY **ANALYTICAL REPORT** PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

Field ID Lab ID N/A SAMPLE NUMBER: 970011 MTR CODE | SITE NAME: Coldiron A #1 MW-1 73551 SAMPLE DATE | TIME (Hrs): 01/21/97 1054 **PROJECT:** Sample 4 - 4th Quarter DATE OF BTEX EXT. | ANAL.: 1/23/97 1/24/97 TYPE | DESCRIPTION: Monitor Well Water

Field Remarks:

D		RESULTS	··· ··· ·		
PARAMETER	RESULT	UNITS	DF	QUALII	FIERS
BENZENE	33.9	РРВ	2	D	
TOLUENE	143	PPB	2	D	
ETHYL BENZENE	90.4	PPB	2	D	
TOTAL XYLENES	882	PPB	5	D	
TOTAL BTEX	1150	РРВ			

X is by EPA Method 8020 -

The Surrogate Recovery was at 100 % for this sample All QA/QC was acceptable. DF = Dilution Factor Used

The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

Juli Lable

Narrative:

Approved By: _

Date: / -29-97

970011.XLS,1/29/97

			X Conductivity Meter Temperature Meter X Other <u>0, 0, CHEMETS</u> KIT	al SENARATOR			Dissolved Oxygen Comments	mg/L			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Date 1-29-97
	73551	Iments PH Meter DO Monitor	X Conductivity Meter Temperature Meter Other 2.0.	isposal 2 5 5			Conductivity Dissolved µmho/cm Oxygen	4250	4190	OHA	4400			r Starter
	1/1/1	Instruments	ŇĀĂ	Water Disposal ドルアン く			Hq	6.32	6.47		6.29			1 m
ng Data	Well Number_			-			Temperature °C	13.7	13,8	141	14.3	C * 7		7 Reviewer
Well Development and Purging Data	Development Purging		53 Gallons to be Removed	6771			Product Volume Removed (gallons)	crement cumulative						Date 1-21-97 Reviewer
elopmei		ulation 15.24 37.71	(feet) Z Gravel Pack e in Well Gellone	29					50	00/	150	202	APRO	
/ell Dev		Volume Calculation h of Well (feet) <u>そう. 2</u> 4 h to Water (feet) <u>3.7.7</u> /	iolumn in Weil (feet) : Weil <u>4</u> Gravel Water Volume in Weil Cubic Fast Gallone				Water Volume Removed (gal	Increment	5.0	20	5.0	2.6	H MACAPRON	
5	1	Water Volume Câ Initial Depth of Well (feet)_ Initial Depth to Water (feet)	Height of Water Column in Weil (feet) Diameter (Inches): Weil & Graa Vater Volume in W	Well Casing	Drilling Fluids	10131	Ending Water Depth	(reet)					ELOATINE	
	*			9				(reat)						
	A (ter Remove neters	Vaha	Double Check Valve				(gaumin)					 EPER	ma
	Site Name COLOTION 19 #1	ment Criteria 3 to 5 Casing Volumes of Water Removel Stabilization of Indicator Parameters Other	lopment Bailer Nakon Valva	Double Check Valve		Jata	12 7						4	- M
EPPSO FIELD SERVICES	ne Col	Development Criteria X 3 to 5 Casing Volumi Stabilization of Indice	Methods of Development	Submersible		Water Removal Data	Time	1101	8101		1035	2	600	Comments
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FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMPLE IDENTIFICATION

	Field ID	Lab iD
SAMPLE NUMBER:	N/A	970317
MTR CODE SITE NAME:	73551	Coldiron A#1
SAMPLE DATE TIME (Hrs):	4/17/97	5th 1112
PROJECT:	Sample	4 - 1st Quarter 11- 1/25/47
DATE OF BTEX EXT. ANAL.:	4/18/97	4/18/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: _____

	······	RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIF	ERS
BENZENE	18.7	PPB	5	D	
TOLUENE	48.4	РРВ	5	D	
ETHYL BENZENE	43.0	РРВ	5	D	
TOTAL XYLENES	659	РРВ	5	D	
TOTAL BTEX	769	РРВ			

The Surrogate Recovery was at 99.2 % for this sample All QA/QC was acceptable. The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor.

Narrative:

John Lallh Date: 4/24/67 Approved By: 970317.XLS,4/21/97





Field Services Laboratory

Analytical Report

SAMPLE IDENTIFICATION

970317	
04/17/97	
1112	
D. Bird	
Water	
73551	
Aztec Pipeline	
Coldiron A#1	
	04/17/97 1112 D. Bird Water 73551 Aztec Pipeline

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Laboratory pH	8.1	Units	04/18/97
Alkalinity as C0 ₃	0	PPM	04/18/97
Alkalinity as HC0 ₃	362	PPM	04/18/97
Calcium as Ca	499	PPM	04/19/97
Magnesium as Mg	56	PPM	04/19/97
Total Hardness as CaC0 ₃	1,478	PPM	04/19/97
Chloride as Cl	63	PPM	04/18/97
Sulfate as S0 ₄	2,480	PPM	04/18/97
Fluoride as F	1.5	PPM	04/18/97
Nitrate as N0 ₃ -N	< 0.6	РРМ	04/18/97
Nitrite as N0 ₂ -N	< 0.6	PPM	04/18/97
Ammonium as NH_4^+	<0.6	PPM	04/19/97
Phosphate as PO ₄	<0.6	PPM	04/18/97
Potassium as K	<0.6	PPM	04/19/97
Sodium as Na	765	РРМ	04/19/97
Total Dissolved Solids	4,180	PPM .	04/19/97
Calculated TDS	4,043	PPM	04/19/97
Conductivity	4,870	umhos/cm	04/18/97
Anion/Cation %	2.7%	%, <5.0 Accepted	04/21/97

Remarks:

Reported By: _____h

Approved By: ______ du Fallh

Date: 4/24/47

Image: Column for the formation of indicative formation of in	COLUTION N Well Number COLUTION N Well Number In Criteria Well Number In Criteria Water Volume Calculation In Criteria Water Volume Calculation Columna of Violens Fannoei Water Volume Calculation Instrumenta Meter Code Instrumenta Meter Code Instrumenta Meter Volume Calculation Instrumenta Meter Volume Calculation Instrumenta Meter Volume Calculation Instrumenta Meter Volume Name Instrumenta Meter Code In	EPPS HIMSO FIELD SERVICES		Well Dev	relopmo	Well Development and Purging Data	ging Dat	Ū				
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