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REPORTS

DATE: 1998

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505) 632-1199 Fax: (505) 632-3903

February 17, 1999

2040 Pacheco

Environmental Bureau

State Land Building

Santa Fe, New Mexico 87505

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RECEIVED

Mr. William C. Olson -Hydrogeologist New Mexico Oil Conservation Division

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

FEB 1 9 1999

Cross Timbers Oil Co. (Amoco) Pit Closure/Groundwater Monitoring Reports RE: San Juan County, New Mexico

Dear Mr. Olson:

The attached reports on pit closure/groundwater monitoring at nineteen (19) previously owned Amoco well locations is being submitted for your review. These well sites have been acquired by Cross Timbers Co. as of December, 1997. The well names are listed on the following page of this correspondence. The reports for each individual well site are laid out in the following order;

- Pit Closure documentation and/or a brief description of all activities which occurred during 1) the investigation, sampling procedures, and/or interpretations, conclusions, and possible recommendations.
- A summary spreadsheet (when applicable) containing laboratory BTEX, general chemistry 2) (if applicable), and any other pertinent information.
- When applicable: site and groundwater gradient maps, boring logs, and monitor well detail 3) schematics.
- 4) Laboratory reports for each sampling event.
- 5) Quality Assurance/Quality Control data.

A copy of this report is also being submitted to Mr. Denny Foust at the Aztec NMOCD office. If you have any questions or comments concerning this report, please contact Blagg Engineering at 632-1199.

Respectfully submitted, **Blagg Engineering, Inc.**

Nelson Velez.

Staff Geologist

Attachments: Pit Closure/Groundwater Monitoring Reports

Denny Foust, NMOCD Aztec Office; xc:

Nina Hutton, Cross Timbers Oil Co.

NJV/njv

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Cross Timbers Oil Company Pit Closure/Groundwater Monitoring Reports Well Sites being submitted, February 1999

- 1) Abrams GC C # 1
- 2) Abrams L # 1A
- 3) Anderson GC A # 1
- 4) Armenta GC A # 1
- 5) Baca GC A # 1
- 6) Baca GC A # 1A
- 7) Chavez GC C # 1R
- 8) Federal GC 3-1
- 9) Garcia GC B # 1E
- 10) Haney GC B # 1E
- 11) Hare GC C # 1
- 12) Hare GC C # 1E
- 13) Hare GC F # 1
- 14) Lefkovitz GC B # 1
- 15) Masden GC # 1
- 16) Romero GC A # 1
- 17) Stedje GC # 1
- 18) Stedje GC # 1E
- 19) Trujillo GC A # 1

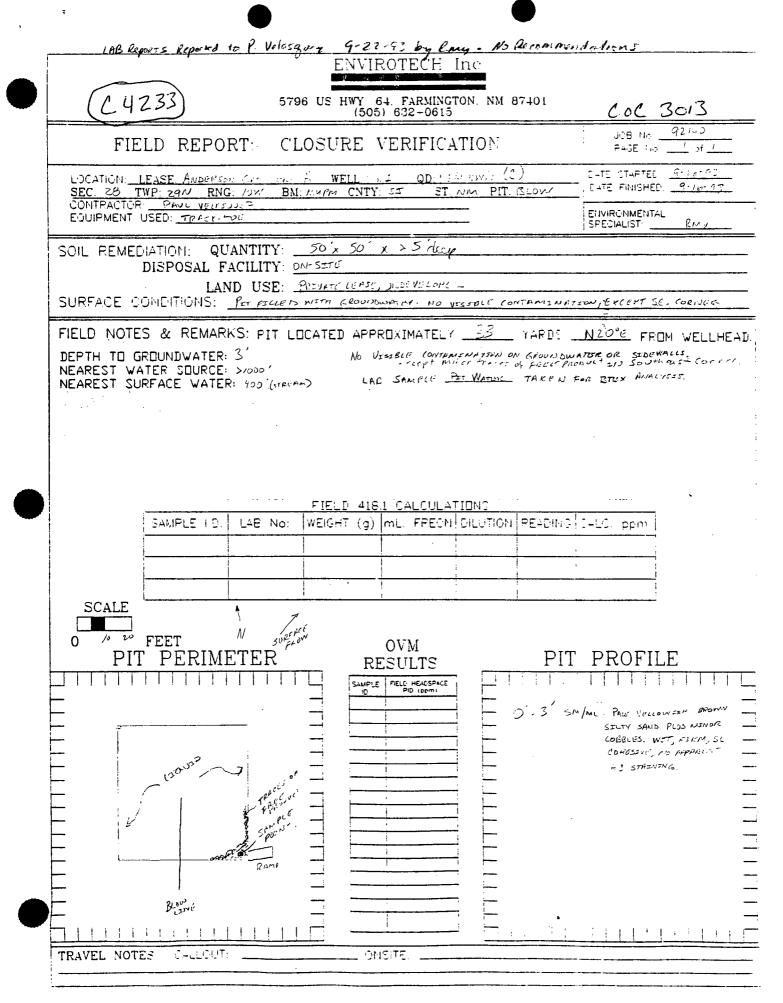
Unit F, Sec. 25, T29N, R10W Unit I, Sec. 26, T29N, R10W Unit C, Sec. 28, T29N, R10W Unit D, Sec. 27, T29N, R10W Unit H, Sec. 26, T29N, R10W Unit F, Sec. 26, T29N, R10W Unit J, Sec. 23, T29N, R10W Unit N, Sec. 23, T29N, R10W Unit M, Sec. 21, T29N, R10W Unit M, Sec. 20, T29N, R10W Unit M, Sec. 25, T29N, R10W Unit F, Sec. 25, T29N, R10W Unit G, Sec. 23, T29N, R11W Unit A, Sec. 25, T29N, R10W Unit A, Sec. 28, T29N, R11W Unit K, Sec. 27, T29N, R10W Unit F, Sec. 27, T30N, R12W Unit A, Sec. 27, T30N, R12W Unit C, Sec. 28, T29N, R10W

FEB99-PC.COV

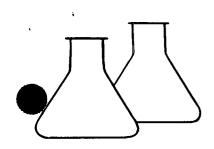
NJV/njv

P.O. Box 1980, Hobbs, NM District II Drawer DD, Arceia, NM 88211 Crict III Rio Brazos Rd, Azico, NM 87410 RECEIVED Fib 19 DD 0.0 1000	C 4233 f New Mexico atural Resources Department SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE Box 2088 Mexico 87504-2088 APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE
Operator: Amoco Production Company	Telephone: (505) · 326-9200
Address: 200 Amoco Court, Farmingto	on, New Mexico 87401
Facility Or: ANDERSON 6C	<u>) # (</u>
Location: Unit or Qtr/Qtr Sec	Sec 28 IZANRIOW County SAN JUAN
Pit Type: Separator Dehydrator	
Land Type: BLM, State, Fee	
Reference: wellhead	
Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points) <u>20</u>
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)
Distance To Surface Water: orizontal distance to perennial takes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points) <u>/O</u>
	RANKING SCORE (TOTAL POINTS): 30

7 1	•		
Date Remediation St	arted:	Date Completed: 9/21	93
	Excavation $\underline{\times}$	Approx. cubic yards <u>463</u>	
(Check all appropriate sections)	Landfarmed 🔀	Insitu Bioremediation	
	Other	·	
			<u> </u>
Remediation Location (ie. landfarmed onsite, name and location of offsite facility)		fsite	
General Description	Of Remedial Action	n:	
Excavatio			
		·····	<u> </u>
		>/ >/	
Fround Water Encoun	tered: No	Yes \times Depth $3'$	
Final Pit: Closure Sampling: (if multiple samples,	Sample location _	see Attached Documents	
attach sample results and diagram of sample	Sample depth	31	
locations and depths)	Sample date	Sample time 1030	-
	Sample Results		
	Benzene(ppm)		
	Total BTEX(p	pm)	
	Field headsp	ace(ppm)	
	ТРН		
Ground Water Sample	: Yes <u>X</u> No _	(If yes, attach sample results)	
I HEREBY CERTIFY THAT MY KNOWLEDGE AND	AT THE INFORMATION BELIEF	ABOVE IS TRUE AND COMPLETE TO THE	BEST
DATE 7/19/98	ļ	RINCI	
SIGNATURE BASI	and AND TIT	NAME Buddy D. Shaw LE ENVIRONMENTAL COORding	Ator



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5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	Pit Water	Date Reported:	09-21-93
Laboratory Number:	6113	Date Sampled:	09-16-93
Sample Matrix:	Water	Date Received:	09-16-93
Preservative:	HgCl and Cool	Date Analyzed:	09-20-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	Ø.2
Toluene	ND	Ø.4
Ethylbenzene	ND	0.2
p,m-Xylene	ND	0.3
o-Xylene	ND	0.2

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	 102 % 104 %
	Bromorruorobenzene	104 8

Method: Method 5030A, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

> Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Anderson GC "A" No. 1 Blow Pit

Leur Analyst

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C4233



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			Ũ	CHAIN OF CUSTODY RECORD	STODY	RECO	Q					•	
Client/Project Name			Project Location	2 'A" No. Z	Blow L	24235		ANALYS	ANALYSIS/PARAMETERS	ETERS			
ゴン			Chain of Custody Tape No.	No.	łc						Remarks	20	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	• ' • N	Contain Contain		<u> </u>	<u></u>				
- W.ATERC	(3-71-6	1030	6113	20214M		2							r
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Relinquished by: (Signature)				Date Time	Received b	Received by: (Signature)	, , , , , , , , , , , , , , , , , , , ,	•			Date	Time	
Olen XM you	q		6.	8-16-93 1202	lía	(fro	Karl	ł			9-16-53	31205	
Relinquished by: (Signature)	N				Received b	Received by: (Signature)		2					
Relinquished by: (Signature)					Received b	Received by: (Signature)	•	-					· · · · · · · · · · · · · · · · · · ·
				ENVIROTECH INC. 5796 U.S. Highway 64:3014 Farmington, New Mexico 87401 (505) 632-0615	IROTECH IN J.S. Highway 64.3 on, New Mexico (505) 632-0615	IC. 014 87401							
											1		

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CLIENT: <u>AMOCO</u>	BLAGG ENG P.O. BOX 87, BLC						<u>C47233</u>
	(505)	632-119	99		C.[].C. ND	5642
FIELD REPORT:	LANDFARM/COM	POST PI	LE CLO	DSURE	VERI	FICA	TION
LOCATION: NAME: ANDERS					DATE STA DATE FINI		2.4.97
	TWP: 29N RNG: 10 00 JU/L CONTRACTOR:		NTY: 5 ->	ST: NM	ENVIRONM SPECIALIS	ENTAL T:N	IEP
SOIL REMEDIATION:							
REMEDIATION SYS'	TEM: LANDFARM	_ Al	PPROX. C	UBIC Y	ARDAGE	E: <u>4</u>	63
LAND USE:	RANGE	_ LI	FT DEPT	H (ft):	<u>AU</u>		
FIELD NOTES & REMAR	KS:						
DEPTH TO GPOUNDWATER: <50	NEAREST WATER SOURCE	>1000	NEARES	T SURFACE	WATER:	<10	001
NMOCH RANKING SCORE: 30							
SOIL IS A DRY DARK Y. NO STAIN OR HE ODOR	ELLOW W/LIGHT BROLIN	SILTY SAN	JØ				
TOOK SPT COMPO	e. Site Fur lab Anialy	515					
		•					
	FIELD 418	.1 CALCULAT	IONS				
SAMP. TIME SAM	MPLE I.D. LAB No: WEIGHT			NREADING	GCALC.	opm	
SKETCH/SAMPLI	E LOCATIONS						
6							
G G	Compressor			_			
		OVM RI		SAMPLE	AB SA		RESULTS
		ID LF·1	FIELD HEADSPACE PID (ppm)	ID ID	8015	0920	NA AU
$\langle \langle \phi_i \rangle$	SEL SEP	Cr		0	00.0	0120	1045
	PIT.						
A	SEP 1						
		L l.		L	II	L]
		SCALE					
1	- KJ MH]	·			
	725-	0	FT				
TRAVEL NOTES: CALLOUT:	NA	ONSITE:	12.4.9-	1	0920		

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ENVIROTECH LABS



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	12-09-97
Laboratory Number:	C646	Date Sampled:	12-04-97
Chain of Custody No:	5642	Date Received:	12-05-97
Sample Matrix:	Soil	Date Extracted:	12-08-97
Preservative:	Cool	Date Analyzed:	12-08-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

		Det.
	Concentration	Limit
Parameter	(mg/Kg)	(mg/Kg)

Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Anderson GC A #1 Landfarm. 5 Pt. Composite.

afecen Analyst

tacy W Sendler Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

		CHAIN OF CUS	CHAIN OF CUSTODY RECORD	
Client/Project Name	Project Location	LANDFARM	ANALYSIS/PARAMETERS	ARAMETERS
BLAGG / Hmoeo	ANDERKO-			
Sampler: (Signature)	Chain of Custody Tape No			Remarks
Ed Potte ar	40	01-75040	H,	
Sample No./ Sample Sample Identification Date Time	le Lab Number	Sample Matrix	No. Conta TP (80)	METAV COOL
250 66/4/21 1-72	0 C646	5012	~ <	2
		sance k	KECHNED COOL & INTRES	5
Relinquished by: (Signature)		Date Time	Received by: (Signature)	Date Time
Ed fitte 25		02/2/97 0700	Telson V el	<u> [2/5/27] 0700</u>
Relinquished by: (Signature)		12/5/97 0945	Received by: (Signature)	12-5-93 0845
Relinquished by: (Signature)			Received by: (Signature)	
1200 COCIS 5638-5647	4	ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615	ENVIROTECH INC. 5796 U.S. Highway 64-3014 armington, New Mexico 87401 (505) 632-0615	

ENVIROTECH LABS



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	QA/QC 12-08-TPH Q C640 Methylene Chic N/A N/A	A/QC oride	Project #: Date Reported Date Sampled: Date Received Date Analyzed Analysis Reque	:	N/A 12-09-97 N/A N/A 12-08-97 TPH
Calibration	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	10-28-97	2.9715E-04	3.0698E-04	3.31%	0 - 15%
Diesel Range C10 - C28	10-28-97	2.9167E-04	3.0288E-04	3.84%	0 - 15%
Blank Conc. (mg/L - mg/K	9)	Concentration		Detection Limit	
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	1,384	1,315	5.0%	0 - 30%	~
Diesel Range C10 - C28	388	369	5.0%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	1,384	250	1,629	100%	75 - 125%
Diesel Range C10 - C28	388	250	637	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Wast SW-846, USEPA, December 1996.

Comments:

QA/QC for samples C640 and C642 - C648.

en L. Cejenen Analyst

Stacy W Sendler

	•	C423	33 ,
orm 3160-5 ne 1990)	DEPARTMEN	ED STATES T OF THE INTERIOR AND MANAGEMENT	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No.
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals			6. If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE			7. If Unit or CA, Agreement Designation
I. Type of Well Oil Gas Well X Well	Other		8. Well Name and No.
2. Name of Operator Amoco Production Company			9. API Well No.
 Address and Telephone No. 200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 			10. Field and Pool, or Exploratory Area CHACRA (PICTURED CLIFF
NE/4 NW, 670'FNL/145	/4, SEC. 28,	TZ9 N, RIOW, N.M.P.M.	11. County or Parish, State SAN JUAN, N.M
2. CHECK	APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF	SUBMISSION	TYPE OF ACTION	
<u> </u>	of Intent	Abandonment Recompletion	Change of Plans
Subsequ —	uent Report	Plugging Back Casing Repair	Water Shut-Off
Final A	bandonment Notice	Altering Casing Nother Fit cleaure	Conversion to Injection Dispose Water (Note: Report results of multiple completion on V Completion or Recompletion Report and Log for
		pertinent details, and give pertinent dates, including estimated date of startin I depths for all markers and zones pertinent to this work.)*	any proposed work. If well is directionally dr
Pit	closure verificat	tion - see attached documentation.	
		tion - see attached documentation. DED, GLOWDWATER, PERMANENT, C S GW PLAN (SEC. 1.2).	closure work
			CLOSURE WOER
	D PIT - ABANDON Amo C foregoing s true and correct S CELL		Date Date Date