3R - 129

GENERAL CORRESPONDENCE

YEAR(S): 1999

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

February 17, 1999

Mr. William C. Olson -Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
2040 Pacheco
State Land Building
Santa Fe, New Mexico 87505

RE: Cross Timbers Oil Co. (Amoco) Pit Closure/Groundwater Monitoring Reports
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;

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

xc: Denny Foust, NMOCD Aztec Office; Nina Hutton, Cross Timbers Oil Co.

NJV/njv FEB99-PC.COV

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

1)	Abrams GC C # 1	Unit F, Sec. 25, T29N, R10W
2)	Abrams L # 1A	Unit I, Sec. 26, T29N, R10W
3)	Anderson GC A # 1	Unit C, Sec. 28, T29N, R10W
4)	Armenta GC A # 1	Unit D, Sec. 27, T29N, R10W
5)	Baca GC A # 1	Unit H, Sec. 26, T29N, R10W
6)	Baca GC A # 1A	Unit F, Sec. 26, T29N, R10W
7)	Chavez GC C # 1R	Unit J, Sec. 23, T29N, R10W
8)	Federal GC 3-1	Unit N, Sec. 23, T29N, R10W
9)	Garcia GC B # 1E	Unit M, Sec. 21, T29N, R10W
10)	Haney GC B # 1E	Unit M, Sec. 20, T29N, R10W
11)	Hare GC C # 1	Unit M, Sec. 25, T29N, R10W
12)	Hare GC C # 1E	Unit F, Sec. 25, T29N, R10W
13)	Hare GC F # 1	Unit G, Sec. 23, T29N, R11W
14)	Lefkovitz GC B # 1	Unit A, Sec. 25, T29N, R10W
15)	Masden GC # 1	Unit A, Sec. 28, T29N, R11W
16)	Romero GC A # 1	Unit K, Sec. 27, T29N, R10W
17)	Stedje GC # 1	Unit F, Sec. 27, T30N, R12W
18)	Stedje GC # 1E	Unit A, Sec. 27, T30N, R12W
19)	Trujillo GC A # 1	Unit C, Sec. 28, T29N, R10W

NJV/njv

FEB99-PC.COV

B0498

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

RECEIVED
FEB 19 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

APPROVED

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company **Telephone:** (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name STEDJE GC #1E

Location: Unit or Qtr/Qtr Sec A Sec 27 T 30N R 12W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM ___, State ___, Fee X, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 60', width 115', depth 8'
Reference: wellhead X, other ___
Footage from reference: 135'
Direction from reference: 80 Degrees ___ East North ___ of X West South X

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)	20
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)	0
Distance To Surface Water: (Horizontal distance to perennial lakes, 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)	20
	RANKING SCORE (TOTAL POINTS):	40

SEP. 97 8498

Date Remediation Started: _____ **Date Completed:** 7/9/97

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 1,500

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite ___ Offsite X AMOCO COMPOST FACILITY - CROUCH MESA

General Description Of Remedial Action: Excavation.

Ground Water Encountered: No ___ Yes X Depth 6'

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 6' & 7'

Sample date 7/7/97 Sample time 1025 & 1035

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes X No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 7/9/97

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: B0498 C.O.C. NO: 5129

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: STEDJE GC WELL #: 1E PIT: SEP

QUAD/UNIT: A SEC: 27 TWP: 30N RNG: 12W PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: NE/4 NE/4 CONTRACTOR: P & S

DATE STARTED: 7/7/97

DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 60 FT. x 115 FT. x 8 FT. DEEP. CUBIC YARDAGE: 1,500

DISPOSAL FACILITY: AMOCO COMPOST FACILITY - CROUCH MESA REMEDIATION METHOD: LANDFARMED

LAND USE: RANGE LEASE: — FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 135 FT. 580W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <200'

NMOCD RANKING SCORE: 40 NMOCD TPH CLOSURE STD: 100 PPM

CHECK ONE:

- ___ PIT ABANDONED
- ✓ STEEL TANK INSTALLED
- ___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

NO PRODUCT OR SHEEN OBSERVED ON GROUNDWATER SURFACE DEPTH TO WATER HAS DECREASED AT LEAST 3' SINCE 6/26/97 DUE TO RIVERS LOWERING RUN OFF FROM MOUNTAINS, UNABLE TO DETERMINE SOIL IMPACT (NOT ACCESSIBLE) SOIL MOSTLY SAND TO SILTY SAND W/ GRAVEL (COBBLE SIZE VARYING).

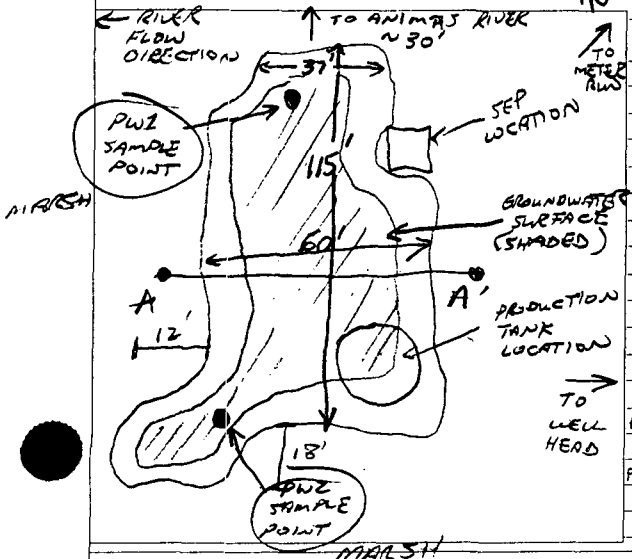
FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE

0 FT

PIT PERIMETER



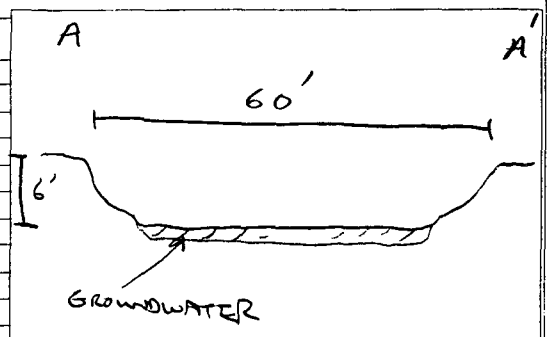
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
PW1 @ GW(6')	BTEX & ANIONS	1025
PW2 @ GW(7')	BTEX	1035

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: 7/7/97 - MORN.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034-10
Sample ID:	PW 1 @ GW (6')	Date Reported:	07-08-97
Chain of Custody:	5129	Date Sampled:	07-07-97
Laboratory Number:	B615	Date Received:	07-07-97
Sample Matrix:	Water	Date Analyzed:	07-07-97
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**0.3**	**1**	**0.2**
p,m-Xylene	**0.6**	**1**	**0.2**
o-Xylene	**0.3**	**1**	**0.1**
Total BTEX	**1.2**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**101 %**

References: Method 5030, 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. 1994.

Comments: **Stedje GC #1E Sep. Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034-10
Sample ID:	PW 2 @ GW (7')	Date Reported:	07-08-97
Chain of Custody:	5129	Date Sampled:	07-07-97
Laboratory Number:	B616	Date Received:	07-07-97
Sample Matrix:	Water	Date Analyzed:	07-07-97
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**1.4**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**15.9**	**1**	**0.2**
o-Xylene	**7.1**	**1**	**0.1**
Total BTEX	**24.4**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

References: Method 5030, 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. 1994.

Comments: **Stedje GC #1E Sep. Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Amoco	Project #:	04034-10
Sample ID:	PW 1 @ GW (6')	Date Reported:	07-09-97
Laboratory Number:	B615	Date Sampled:	07-07-97
Sample Matrix:	Water	Date Received:	07-07-97
Preservative:	Cool	Date Analyzed:	07-08-97
Condition:	Cool & Intact	Chain of Custody:	5129

Parameter	Analytical Result	Units		Units
pH	**7.58**	s.u.		
Conductivity @ 25° C	**9,450**	umhos/cm		
Total Dissolved Solids @ 180C	**4,700**	mg/L		
Total Dissolved Solids (Calc)	**4,684**	mg/L		
SAR	**29.1**	ratio		
Total Alkalinity as CaCO3	**244**	mg/L		
Total Hardness as CaCO3	**408**	mg/L		
Bicarbonate as HCO3	**244**	mg/L	4.00	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.2**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.003**	mg/L	0.00	meq/L
Chloride	**39.0**	mg/L	1.10	meq/L
Fluoride	**6.4**	mg/L	0.34	meq/L
Phosphate	**0.9**	mg/L	0.03	meq/L
Sulfate	**3,000**	mg/L	62.46	meq/L
Calcium	**<0.01**	mg/L	0.00	meq/L
Magnesium	**99.0**	mg/L	8.15	meq/L
Potassium	**40.0**	mg/L	1.02	meq/L
Sodium	**1,350**	mg/L	58.73	meq/L
Cations			67.89	meq/L
Anions			67.93	meq/L
Cation/Anion Difference			**0.05%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Stedje GC #1E Sep Pit.**

Analyst

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5129

STEDJE **CHAIN OF CUSTODY RECORD**

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	~~STEDJE~~ ~~SEC 10~~ GC #1E	
Sampler: (Signature)	Chain of Custody Tape No.	
[signature]	04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8020)	ANION/ CATION					Remarks
												ALL SAMPLES RECEIVED COOL, BTEX'S
PW1 @ GW (6')	7/7/97	1025	B615	WATER	3	✓	✓					CONTAIN $HgCl_2$ ALSO
PW2 @ GW (7')	7/7/97	1035	B616	WATER	2	✓						
				Samples received cool & intact								

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7/7/97	1111	[signature]	7-7-97	11:11
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-08-97
Laboratory Number:	07-07-BTEX.BLANK	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-07-97
Condition:	N/A	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	**ND**	**0.2**
Toluene	**ND**	**0.2**
Ethylbenzene	**ND**	**0.2**
p,m-Xylene	**ND**	**0.2**
o-Xylene	**ND**	**0.1**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**97 %**

References: Method 5030, 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. 1994.

Comments: **QA/QC for samples B615 - B616.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-08-97
Laboratory Number:	B615	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	HgCl and Cool	Date Analyzed:	07-07-97
Condition:	Cool and Intact	Analysis Requested:	BTEX-8020

Parameter	Sample Result (ug/L)	Duplicate Result (ug/L)	Percent Diff.	Det. Limit (ug/L)	Dilution Factor
Benzene	**ND**	**ND**	**0.0%**	**0.2**	**1**
Toluene	**ND**	**ND**	**0.0%**	**0.2**	**1**
Ethylbenzene	**0.3**	**0.3**	**0.0%**	**0.2**	**1**
p,m-Xylene	**0.6**	**0.6**	**0.0%**	**0.2**	**1**
o-Xylene	**0.3**	**0.3**	**0.0%**	**0.1**	**1**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8020 Compounds	**30 %**

References: Method 5030, 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. 1994.

Comments: **QA/QC for samples B615 - B616.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-08-97
Laboratory Number:	B615	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	07-07-97
Condition:	Cool and Intact		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	**ND**	**50.0**	**50.0**	**0.2**	**100%**	**39-150**
Toluene	**ND**	**50.0**	**50.4**	**0.2**	**101%**	**46-148**
Ethylbenzene	**0.3**	**50.0**	**51.1**	**0.2**	**101%**	**32-160**
p,m-Xylene	**0.6**	**100**	**101**	**0.2**	**100%**	**46-148**
o-Xylene	**0.3**	**50.0**	**50.2**	**0.1**	**100%**	**46-148**

ND - Parameter not detected at the stated detection limit.

References: Method 5030, 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. 1994.

Comments: **QA/QC for samples B615 - B616.**

Analyst

Review

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80498

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

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

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Amoco Production Company

3. 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)
NE/4 NE/4 SEC. 27, T N, R W, N.M.P.M.
1190' FNL / 830' FEL

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
STEDJE GC #1E

9. API Well No.
3004525560

10. Field and Pool, or Exploratory Area
BASIN DAKOTA

11. County or Parish, State
SAN JUAN, N.M.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Pit closure	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

① SEPARATOR PIT - STEEL TANK INSTALLED, GROUNDWATER ENCOUNTERED, CLOSED UNDER AMOCO'S GROUNDWATER PLAN (SEC. 1.2).

14. I hereby certify that the foregoing is true and correct
Signed RA Shaw Title ENVIRO. COORDINATOR Date 7/26/98

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side