

85414 *AK*

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

**JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528**

PIT REMEDIATION AND CLOSURE REPORT

RECEIVED
AUG 09 1999
OIL CON. DIV.
DIST. 3
(505) 826-9200

Operator: AMOCO PRODUCTION COMPANY **Telephone:** _____

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA APACHE 102 #6

Location: Unit or Qtr/Qtr Sec K Sec 3 T 26 N R 4 W County RIO ARriba

Pit Type: Separator X Dehydrator _____ Other Blow

Land Type: RANGE

Pit Location: Pit dimensions: length 40', width 35', depth 20'
(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 150

Direction from reference: 20 Degrees X East of North X
_____ West of South _____

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet (10 points) Greater than 100 feet (0 points)	<u>0</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)	<u>0</u>
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: _____ Date Completed: 8-21-96

Remediation Method: Excavation X Approx. cubic yards 1000
Check all appropriate sections) Landfarmed X Insitu Bioremediation _____
Other _____

Remediation Location: Onsite X Offsite _____
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavation

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location see Attached Documents

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

Sample depth 22'

Sample date 8-21-96 Sample time _____

Sample Results

Soil: Benzene	(ppm)	<u>0.992</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>22.27</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>304</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>620</u>	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes _____ No X (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 8-26-96 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON) _____

SIGNED: [Signature] DATE: 8-26-96

CLIENT: <u>Amoco</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJ414</u> C.D.C. NO: <u>4894</u>
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FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: <u>JICAPILCA APACHE 102 #6</u>	PIT TYPE: <u>Blow / Sep.</u>	DATE STARTED: <u>8-21-96</u>
QUAD/UNIT: <u>K SEC. 3</u> TWP: <u>26 N</u> RNG: <u>4 W</u> BM: <u>MM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>NE / SW</u>	CONTRACTOR: <u>PAUL</u>	ENVIRONMENTAL SPECIALIST: <u>REG</u>
EXCAVATION APPROX. <u>40'</u> FT. x <u>35'</u> FT. x <u>20'</u> FT. DEEP.		CUBIC YARDS: <u>~1000</u>
DISPOSAL FACILITY: <u>ON-SIDE</u>	REMEDATION METHOD: <u>LAMPARM</u>	
LAND USE: <u>RANGE</u>	LEASE: <u># 102</u>	FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 150 FEET N20°E FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOC D RANKING SCORE: 0 NMOC D TPH CLOSURE STD: 5000 PPM
SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED
SOIL CONSISTS OF SANDY SILT + SILTY CLAY ON BOTTOM, SLIGHT odor IN BOTTOM.

(CLOSED)

FIELD 418.1 CALCULATIONS

FIELD 418.1 CALCULATIONS						
SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
CB@22'	1789	100	20.0	1	310	620

SCALE

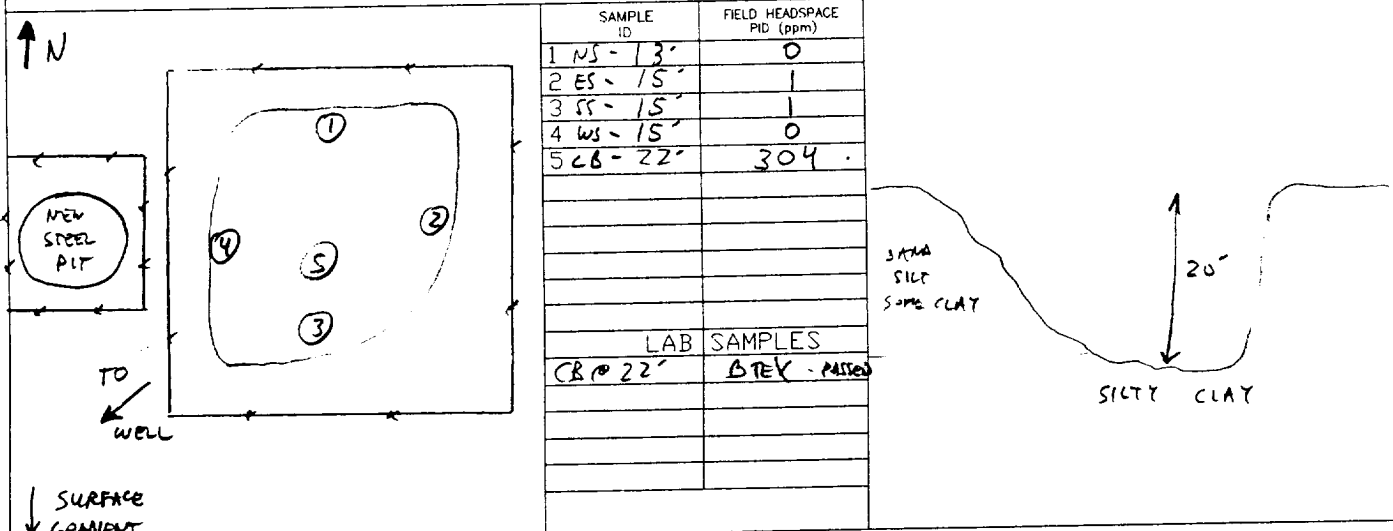


0 10 20 FT

PIT PERIMETER

OVM RESULTS

PIT PROFILE



TRAVEL NOTES: CALLOUT: 8-19-96 ONSITE: 8-21-96 0900 FORM REVISED 7/95

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

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Amoco	Project #:	
Sample ID:	Center Bottom @ 22'	Date Analyzed:	8-21-96
Project Location:	Jicarilla Apache 102 # 6	Date Reported:	8-22-96
Laboratory Number:	TPH #1789	Sample Matrix:	Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	620	10

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	1,420	1,344	5

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total
Recoverable, Chemical Analysis of Water and Waste,
USEPA Storet No.4551, 1978

Comments: Blow/Separator Pit - BJ414

R. E. O'Neil
Analyst

Michael V. [Signature] 11/4/96
Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034
Sample ID:	CB @ 22'	Date Reported:	08-22-96
Laboratory Number:	A493	Date Sampled:	08-21-96
Chain of Custody:	4894	Date Received:	08-22-96
Sample Matrix:	Soil	Date Analyzed:	08-22-96
Preservative:	Cool	Date Extracted:	08-22-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	992	11.7
Toluene	3,610	11.1
Ethylbenzene	1,170	10.1
p,m-Xylene	15,400	14.4
o-Xylene	1,100	6.9
Total BTEX	22,270	

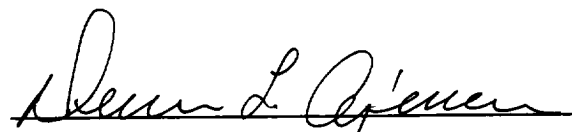
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	100 %

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: Jicarilla Apache 102 #6 Blow / Sep. Pit.


Analyst


Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client:

Sample ID:

Project Location:

Laboratory Number:

Amoco

Center Bottom @ 22'

Jicarilla Apache 102 # 6

TPH #1789

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

8-21-96

8-22-96

Soil

Sample Weight: 10.00 grams
Volume Freon: 20.00 mL
Dilution Factor: 1 (unitless)
TPH Reading: 310 mg/kg

TPH Result: 620.0 mg/kg
Reported TPH Result: 620.0 mg/kg
Actual Detection Limit: 10.0 mg/kg
Reported Detection Limit: 10 mg/kg

QA/QC:

Original
TPH mg/kg

Duplicate
TPH mg/kg

%
Diff.

1420

1344

5

Comments:

*****Max Characters*****

Comments:

Blow/Separator Pit - BJ414

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS									
AMOCO / 6466		JICARILLA NATCHE 102 #6											
Sampler: (Signature) R. E. O'Neil				Chain of Custody Tape No.		No. of Containers		Reflex				Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
CB @ 22'	8-22-96	0930	A493	SOIL									Blow/Sec. PIT
Relinquished by: (Signature) R. E. O'Neil		Date 8-22-96	Time 0850	Received by: (Signature) Dennis L. O'Neil		Date 8-22-96		Time 0850					
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

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

85414

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA APACHE # 102-6
Location: Unit or Qtr/Qtr Sec K Sec 3 T 26N R 4W County RIO ARriba
Land Type: RANGE

Date Remediation Started: 8/21/96 Date Completed: 7/14/98
Remediation Method: Landfarmed X Approx. cubic yards 1200
Composted
Other

Depth To Groundwater: (pts.) 0
Distance to an Ephemeral Stream (pts.) 0
Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0
Wellhead Protection Area: (pts.) 0
Distance To Surface Water: (pts.) 0

RANKING SCORE (TOTAL POINTS): 0

Final Closure Sampling:

Sampling Date: 7/13/98 Time: 0745

Sample Results:

Field Headspace (ppm) 0.0
TPH (ppm) 0.4 Method 8015
Other 2ND SAMPLE 0.0 ppm
(LF-2) TAH = 1.5 ppm
TIME: 0830

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

DATE 7/14/98 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO (REASON) use as Backfill

SIGNED: Ken C. Mann DATE: 7-27-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJ 414</u> C.D.C. NO: <u>6093</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>JICA APACHE</u> 102 WELL #: <u>6</u> PITS: <u>SEP / PROD.</u> QUAD/UNIT: <u>K</u> SEC: <u>3</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>NE1/4 SW1/4</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>7/13/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
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SOIL REMEDIATION:

 REMEDIATION SYSTEM: LANDFARM

 APPROX. CUBIC YARDAGE: 1000

 LAND USE: RANGE

 LIFT DEPTH (ft): 1'-2'

FIELD NOTES & REMARKS:

 DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

 NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

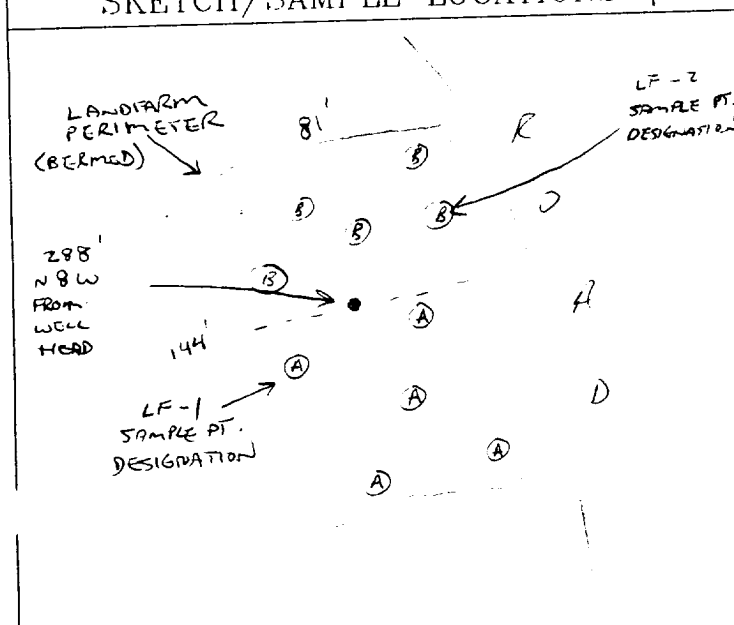
SOIL CONSISTED OF DK. YELL. BROWN SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST FIRM, SAMPLING DEPTHS RANGE FROM 6" TO 1 1/2', NO DISCOLORATION OR HC ODOR OBSERVED W/IN LANDFARM OR @ ANY OF THE SAMPLING PTS., COLLECTED 5 PT. COMPOSITE SAMPLES FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	0745	0.4
LF-2	0.0	LF-2	TPH (8015)	0830	1.5

SCALE

0 100 FT

TRAVEL NOTES:

 CALLOUT: NA

 ONSITE: 7/13/98

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

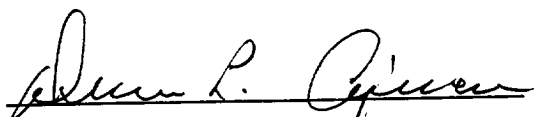
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	07-14-98
Laboratory Number:	D606	Date Sampled:	07-13-98
Chain of Custody No:	6093	Date Received:	07-13-98
Sample Matrix:	Soil	Date Extracted:	07-13-98
Preservative:	Cool	Date Analyzed:	07-13-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	0.4	0.1
Total Petroleum Hydrocarbons	0.4	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: Jicarilla Apache #102 - 6 Landfarm. 5 Pt. Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

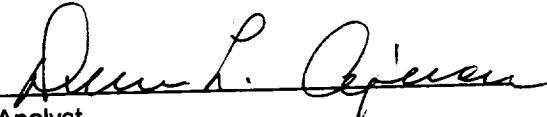
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	07-14-98
Laboratory Number:	D607	Date Sampled:	07-13-98
Chain of Custody No:	6093	Date Received:	07-13-98
Sample Matrix:	Soil	Date Extracted:	07-13-98
Preservative:	Cool	Date Analyzed:	07-13-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

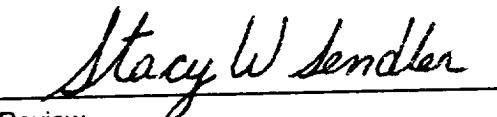
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	1.5	0.1
Total Petroleum Hydrocarbons	1.5	0.2

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: Jicarilla Apache #102 - 6 Landfarm. 5 Pt. Composite.


Analyst


Review

6093

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