BJ648
Blow-OK
sep-risk
bedrock

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

RECEIVED
AUG 0 9 1999
OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA APACHE #102 - 10E

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

Pit Type: Separator ____ Dehydrator ____ Other BLOW

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 44', width 47', depth 19'

Reference: wellhead X, other ____

Footage from reference: 150'

Direction from reference: 68 Degrees ____ East X North of X West South ____

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points)	0
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	0

RANKING SCORE (TOTAL POINTS): 0

BJ648 BLOW PIT

Date Remediation Started: _____ **Date Completed:** 10/1/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 1750

Landfarmed X Insitu Bioremediation _____

Other _____

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

General Description of Remedial Action: Excavation, BEDROCK BOTTOM.

Groundwater Encountered: No X Yes ____ Depth _____

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

Sample location see Attached Documents

Sample depth 14' (NORTH SIDEWALL)

Sample date 9/29/98 Sample time 0830

Sample Results

Soil: Benzene	(ppm)	1.600	Water: Benzene	(ppb)	
Total BTEX	(ppm)	43.350	Toluene	(ppb)	
Field Headspace	(ppm)	866	Ethylbenzene	(ppb)	
TPH	(ppm)	1,890	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 KNOWLEGE AND BELIEF

DATE 10/1/98 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: Ken C Marcus DATE: 11-18-98

3003922455

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: BJ648
C.O.C. NO: 6282

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICA. AP. 102 WELL #: 10E PIT: BLOW
QUAD/UNIT: K SEC: 4 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 1700' FSL / 1530' FWL CONTRACTOR: P&S

DATE STARTED: 9/29/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 44 FT. x 47 FT. x 19 FT. DEEP. CUBIC YARDAGE: 1750
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: JIC 102 FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 150 FT. N68W FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
✓ PIT ABANDONED
___ STEEL TANK INSTALLED
___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

SIDEWALLS - SOUTH SIDEWALL DUSKY RED/LT. GRAY CLAY FROM 9' TO PIT BOTTOM; NORTH & EAST SIDEWALLS CONSISTED OF MOSTLY DK. YELL. ORANGE TO DK. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM; WEST SIDEWALL CONSISTED OF DK. YELL. ORANGE TO DK. YELL. BROWN SAND @ TOP HALF & DUSKY RED/LT. GRAY CLAY @ BOTTOM HALF, STAINING WAS OBSERVED PREDOMINATELY W/IN MIDDLE 1/3 OF SIDEWALL, STRONG HC ODOR IN EAST, SOUTH, & WEST SIDEWALL OVM SAMPLES.

BOTTOM - PREDOMINATELY DUSKY RED/LT. GRAY BEDROCK (SHALE) VERY HARD, HC ODOR DETECTED W/IN OVM SAMPLE.

BEDROCK BOTTOM

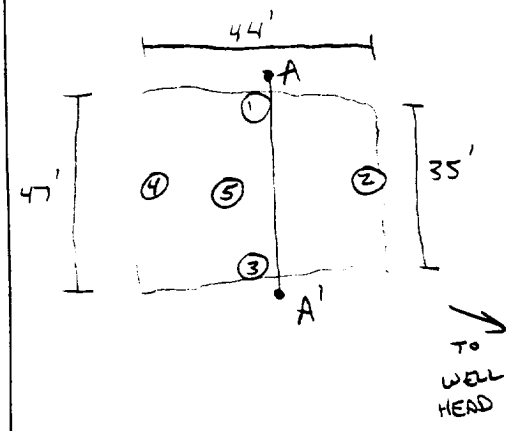
CLOSED

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

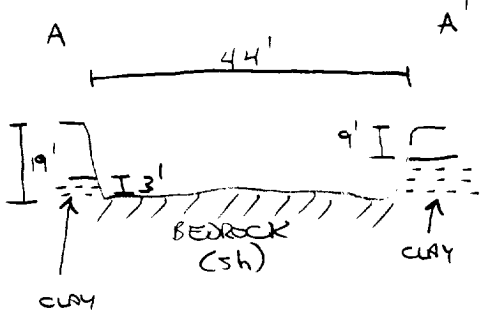
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 14'	866
2 @ 13'	41.4
3 @ 14'	578
4 @ 13'	681
5 @ 19'	138.0

LAB SAMPLES

SAMPLE ID	ANALYSIS		TIME
① @ 14'	TPH	BTEX	0830

BOTH PASSED

PIT PROFILE



TRAVEL NOTES: CALLOUT: ONSITE: 9/29/98 - MORN.

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:	1 @ 14'	Date Reported:	10-01-98
Laboratory Number:	E006	Date Sampled:	09-29-98
Chain of Custody No:	6282	Date Received:	09-30-98
Sample Matrix:	Soil	Date Extracted:	09-30-98
Preservative:	Cool	Date Analyzed:	09-30-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	oncentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,330**	**0.2**
Diesel Range (C10 - C28)	**561**	**0.1**
Total Petroleum Hydrocarbons	**1,890**	**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 - 10E Blow Pit.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	1 @ 14'	Date Reported:	10-01-98
Laboratory Number:	E006	Date Sampled:	09-29-98
Chain of Custody:	6282	Date Received:	09-30-98
Sample Matrix:	Soil	Date Analyzed:	09-30-98
Preservative:	Cool	Date Extracted:	09-30-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**1,600**	**8.8**
Toluene	**8,980**	**8.4**
Ethylbenzene	**3,520**	**7.6**
p,m-Xylene	**20,050**	**10.8**
o-Xylene	**9,200**	**5.2**
Total BTEX	**43,350**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Jicarilla Apache #102 - 10E Blow Pit.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6282

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	BLOW PIT JICARILLA APACHE #102-10E	
Sampler: NJV	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8021)	TPH (8015)					Remarks
① @ 14'	9/29/98	0830	E006	SOIL	1	✓	✓					PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	9/30/98	0700	Dawn L. O'Neal	9-30-98	0700
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

RP COC's 6280 → 6283

ENVIROTECH INC.

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

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

BJ648

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AND OIL & GAS ADMINISTRATION

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505)326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA APACHE # 102 - 10E

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

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 33', width 20', depth 11'

Reference: wellhead X, other ____

Footage from reference: 150'

Direction from reference: 10 Degrees X East of North X West South ____

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points)	0
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	0

RANKING SCORE (TOTAL POINTS): 0

RJ648 SEP. PIT

Date Remediation Started: _____ Date Completed: 9/29/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 200

Landfarmed X Insitu Bioremediation _____

Other _____

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

General Description of Remedial Action: Excavation. EXCAVATION MOSTLY BEDROCK, THEREFORE NO TPH ANALYSIS WAS CONDUCTED. RISK ASSESSED.

Groundwater Encountered: No X Yes ____ Depth _____

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

Sample location see Attached Documents

Sample depth 7' (SOUTH SIDEWALL)

Sample date 9/29/98 Sample time 0930

Sample Results

Soil: Benzene	(ppm)		Water: Benzene	(ppb)	
Total BTEX	(ppm)		Toluene	(ppb)	
Field Headspace	(ppm)	754	Ethylbenzene	(ppb)	
TPH	(ppm)	NA	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 KNOWLEGE AND BELIEF

DATE 9/29/98 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) R.A Attached

SIGNED: Kenneth C Morrell DATE: 11-18-98

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: ST648
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICA. AP. 102 WELL #: 10E PIT: SEP

QUAD/UNIT: K SEC: 4 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM

QTR/FOOTAGE: 1700' FSL/1530' FWL CONTRACTOR: PTS

DATE STARTED: 9/29/98
DATE FINISHED: _____

ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. 33 FT. x 20 FT. x 11 FT. DEEP. CUBIC YARDAGE: 200

DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM

LAND USE: RANGE LEASE: JIC 102 FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 150 FT. N10E FROM WELLHEAD.

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

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

CHECK ONE:
- ✓ PIT ABANDONED
- ___ STEEL TANK INSTALLED
- ___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

EXCAVATION CONSISTED OF MOSTLY DUSKY RED/ LT. GRAY BEDROCK (SHALE), SOFT NEAR GROUND SURFACE TO VERY HARD @ PIT BOTTOM, NO NOTICEABLE STAINING OBSERVED OR HC ODOR DETECTED W/IN EXCAVATION, STRONG HC ODOR IN NORTH, SOUTH, & WEST SIDEWALL DUM SAMPLES.

EXCAVATION MOSTLY BEDROCK

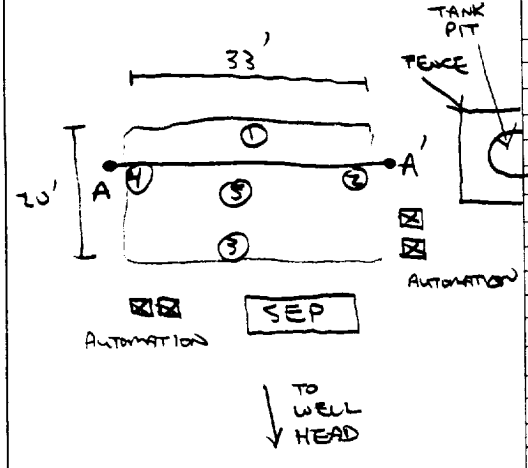
RISK ASSESSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0930							

SCALE
0 FT

PIT PERIMETER



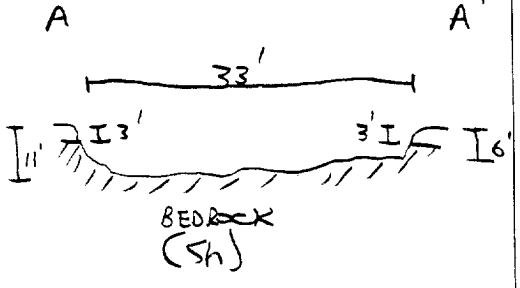
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 7'	699
2 @ 6'	31.0
3 @ 7'	754
4 @ 7'	702
5 @ 11'	12.9

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: 9/29/98 - MORN.

Well Name:	**Jicarilla Apache 102 #10E**
Well Site location:	Unit K, Sec. 4, T26N, R4W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 11 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow shale bedrock located 11 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale bedrock.

2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Well site located within the **non-vulnerable area** and is approximately 0.90 miles south southeast of the nearest vulnerable area boundary (Jaramillo Canyon wash).

   (Refer to Vigas Canyon Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), photorevised 1982, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the shale bottom creates enough of an impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.

BS648

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

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 · 10E

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

Land Type: RANGE

Date Remediation Started: 9-29-98 **Date Completed:** 4/19/99

Remediation Method: Landfarmed ✓ Approx. cubic yards 2,550

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 SurfaceWater:	(pts.)	0
RANKING SCORE (TOTAL POINTS):		0

Final Closure Sampling:

Sampling Date: 4-15-99 Time: 0940/1010

Sample Results: (LF-1)

Field Headspace (ppm) 203.3 (LF-1)

TPH (ppm) 34.0 Method 8015

Other BENZENE = 0.522 ppm

TOT. BTEX 6.590 ppm

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

DATE 4/19/99 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) ____

SIGNED: Kenneth C Marcell DATE: 6-18-99

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: BJ648
C.O.C. NO: 6887

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME JICARILLA APACHE 102 WELL #: 10E PITS: SEP, BLOW
QUAD/UNIT: K SEC: 4 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P&S

DATE STARTED: 4-15-99
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 2,550
LAND USE: RANGE
LIFT DEPTH (ft): 1

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

APPROX 600 C.Y. DISPOSED FROM 102-4

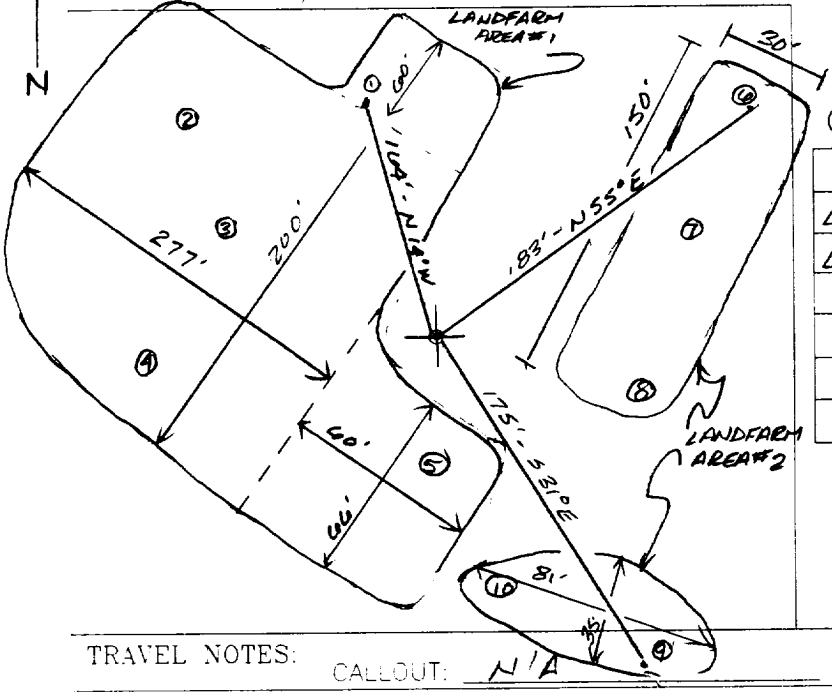
DK. YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING, SOME HC ODOR DETECTED IN SAMPLING PTS. ③, ④, ⑤ IN LANDFARM AREA #1. SAMPLING DEPTHS RANGE FROM 6"-18'. TOOK 5PT. COMPOSITE SAMPLES FROM BOTH LANDFARM AREAS FOR LAB ANALYSIS

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

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	203.3
LF-2	24.2

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	0940	34.0
"	BENZENE	"	522 ppb
"	TOT. BTEX	"	6590 ppb
LF-2	TPH (8015)	1010	12.2

SCALE
0 FT

TRAVEL NOTES: CALLOUT: N/A ONSITE: 4-15-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-19-99
Laboratory Number:	F049	Date Sampled:	04-15-99
Chain of Custody No:	6887	Date Received:	04-16-99
Sample Matrix:	Soil	Date Extracted:	04-16-99
Preservative:	Cool	Date Analyzed:	04-19-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**16.0**	**0.2**
Diesel Range (C10 - C28)	**18.0**	**0.1**
Total Petroleum Hydrocarbons	**34.0**	**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 - 10E Landfarm. 5 Pt. Composite.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 2	Date Reported:	04-19-99
Laboratory Number:	F050	Date Sampled:	04-15-99
Chain of Custody No:	6887	Date Received:	04-16-99
Sample Matrix:	Soil	Date Extracted:	04-16-99
Preservative:	Cool	Date Analyzed:	04-19-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**4.5**	**0.2**
Diesel Range (C10 - C28)	**7.7**	**0.1**
Total Petroleum Hydrocarbons	**12.2**	**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 - 10E Landfarm. 5 Pt. Composite.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-19-99
Laboratory Number:	F049	Date Sampled:	04-15-99
Chain of Custody:	6887	Date Received:	04-16-99
Sample Matrix:	Soil	Date Analyzed:	04-19-99
Preservative:	Cool	Date Extracted:	04-16-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**522**	**8.8**
Toluene	**2,130**	**8.4**
Ethylbenzene	**462**	**7.6**
p,m-Xylene	**2,090**	**10.8**
o-Xylene	**1,390**	**5.2**
Total BTEX	**6,590**	

ND - Parameter not detected at the stated detection limit.

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

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Jicarilla Apache 102 - 10E Landfarm. 5 Pt. Composite.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

6887

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LANDFARM JICARILLA APACHE 102-10E	
Sampler: REP	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8021)	TPH (8015)					Remarks
LF-1	4.15.99	0940	F049	SOIL	1	✓	✓					5PT COMPOSITE
LF-2	4.15.99	1010	F050	SOIL	1		✓					
												SAMPLES PRESERVE-
												COOL

	Date	Time		Date	Time
Relinquished by: (Signature) E Houston	4.16.99	8:10	Received by: (Signature) Donna R. Opheim	4.16.99	8:10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		