

SQ-1258-201-11 BLOW-Down  
BT652

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 16 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 CONTRACT # 146-22  
Location: Unit or Qtr/Qtr Sec A Sec 10 T25N R5W County Rio ARRIBA  
Pit Type: Separator      Dehydrator      Other BLOW  
Land Type: RANGE

Pit Location: Pit dimensions: length 44', width 34', depth 4'  
(Attach diagram) Reference: wellhead X, other       
Footage from reference: 175'  
Direction from reference: 47 Degrees X East of North       
     West of South X

<b>Depth To Groundwater:</b> (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>
<b>Distance to an Ephemeral Stream</b> (Downgradient dry wash greater than ten feet in width)	Less than 100 feet	(10 points)	
	Greater than 100 feet	(0 points)	<u>0</u>
<b>Distance to Nearest Lake, Playa, or Watering Pond</b> (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet	(10 points)	
	Greater than 100 feet	(0 points)	<u>0</u>
<b>Wellhead Protection Area:</b> (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>
<b>Distance To Surface Water:</b> (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: 10/7/98

Remediation Method: Excavation ☒ Approx. cubic yards 175  
 Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite \_\_\_\_\_  
 (i.e. landfarmed onsite, name and location of offsite facility) \_\_\_\_\_

General Description of Remedial Action: Excavation. BEDROCK BOTTOM. RISK ASSESSED.

Groundwater Encountered: No ☒ 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 3' (SOUTH SIDEWALK)

Sample date 10/6/98

Sample time 0945

## Sample Results

Soil: Benzene (ppm) 0.152

Water: Benzene (ppb) \_\_\_\_\_

Total BTEX (ppm) 16.910

Toluene (ppb) \_\_\_\_\_

Field Headspace (ppm) 179.6

Ethylbenzene (ppb) \_\_\_\_\_

TPH (ppm) 5,540

Total Xylenes (ppb) \_\_\_\_\_

Groundwater Sample: Yes \_\_\_\_\_ 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 10/7/98 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 ☒ NO \_\_\_\_\_ (REASON) R.A. Attached

SIGNED: Kern C. Mamm DATE: 11-18-98

3003920335

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT652</u> C.D.C. NO: <u>6286</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>TICA CONTR. 146</u> WELL #: <u>22</u> PIT: <u>BLOW</u>		DATE STARTED: <u>10/6/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>A</u> SEC: <u>10</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>830' FNL</u> <u>860' FEL</u> CONTRACTOR: <u>P+S</u>		

EXCAVATION APPROX. <u>44</u> FT. x <u>34</u> FT. x <u>4</u> FT. DEEP.	CUBIC YARDAGE: <u>175</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 146</u> FORMATION: <u>DK</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>175</u> FT. <u>S47E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>&gt;100'</u>	NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u>
NMOCB RANKING SCORE: <u>0</u>	NMOCB TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	

CHECK ONE:
<input checked="" type="checkbox"/> PIT ABANDONED
<input type="checkbox"/> STEEL TANK INSTALLED
<input type="checkbox"/> FIBERGLASS TANK INSTALLED

SIDEWALLS - VERY PALE ORANGE SANDSTONE (WEST SIDEWALL ONLY) DK, YELL. BRANGES TO BROWN SILTY SAND TO SILTY CLAY COHESIVE SLIGHTLY MOIST TO MOIST, FIRM TO STIFF, NO APPARENT HC ODOOR DETECTED WITH EXCAVATION, STAINING OBSERVED ON BOTTOM FOOT OF EAST & SOUTH SIDEWALLS, HC ODOOR DETECTED IN SOUTH SIDEWALL OVM SAMPLE ONLY.

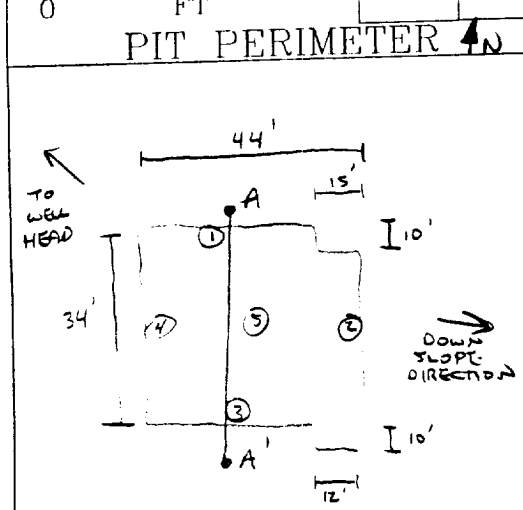
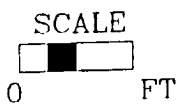
BOTTOM - BEDROCK (SANDSTONE) VERY HARD, OLIVE GRAY IN COLOR, NO APPARENT HC ODOOR DETECTED IN OVM SAMPLE.

BEDROCK 5' from

RISK ASSESSED

FIELD 418.1 CALCULATIONS

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

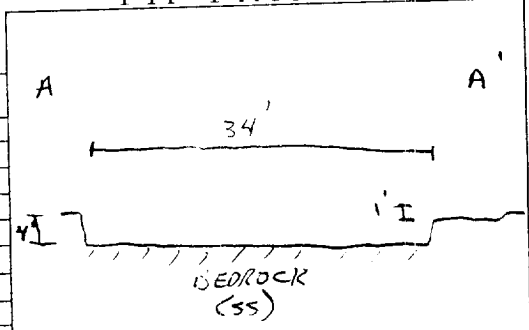


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 2'	0.0
2 @ 3'	0.0
3 @ 3'	179.6
4 @ 2'	0.0
5 @ 4'	11.2

SAMPLE ID	ANALYSIS	TIME
3 @ 3'	TPH/BTEX	0945
TPH - FAILED		
BTEX - PASSED		

PIT PROFILE



TRAVEL NOTES:	CALLOUT: _____	ONSITE: <u>10/6/98 - morn.</u>
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**Well Name:**

**Well Site location:**

**Pit Type:**

**Producing Formation:**

**Pit Category:**

**Horizontal Distance to Surface Water:**

**Vicinity Groundwater Depth:**

**Jicarilla Contract 146 #22**

**Unit A, Sec. 10, T25N, R5W**

**Blow Pit**

**Basin Dakota**

**Non Vulnerable**

**> 1000 ft.**

**> 100 ft.**

## **RISK ASSESSMENT (non-vulnerable area)**

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 4 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 sandstone bedrock located 4 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone 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 1.11 miles northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

**(Refer to Lapis Point Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (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 sandstone 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.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / AMOCO  
Sample ID: 3 @ 3'  
Laboratory Number: E033  
Chain of Custody No: 6286  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

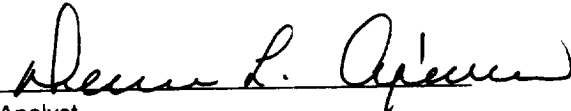
Project #: 04034-10  
Date Reported: 10-07-98  
Date Sampled: 10-06-98  
Date Received: 10-07-98  
Date Extracted: 10-07-98  
Date Analyzed: 10-07-98  
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2,150	0.2
Diesel Range (C10 - C28)	3,390	0.1
Total Petroleum Hydrocarbons	5,540	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 Contract #146 - 22 Blow Pit.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	3 @ 3'	Date Reported:	10-07-98
Laboratory Number:	E033	Date Sampled:	10-06-98
Chain of Custody:	6286	Date Received:	10-07-98
Sample Matrix:	Soil	Date Analyzed:	10-07-98
Preservative:	Cool	Date Extracted:	10-07-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	152	8.8
Toluene	605	8.4
Ethylbenzene	2,320	7.6
p,m-Xylene	9,520	10.8
o-Xylene	4,310	5.2
Total BTEX	16,910	

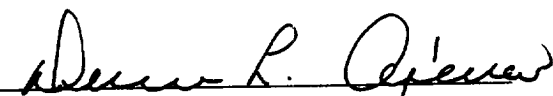
ND - Parameter not detected at the stated detection limit.

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 Contract #146 - 22 Blow Pit.

  
Analyst

  
Review

## 6286

[illegible]

652  
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NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

Less than 100 feet	(20 points)
100 feet to 1000 feet	(10 points)
Greater than 1000 feet	( 0 points)

Date Remediation Started: \_\_\_\_\_

Date Completed: 10/21/98

Remediation Method: Excavation ☒  
 Check all appropriate sections) Landfarmed ☒

Approx. cubic yards 225

Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

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

Onsite ☒ Offsite \_\_\_\_\_

General Description of Remedial Action: Excavation. BEDROCK BOTTOM.

Groundwater Encountered:

No ☒

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 \_\_\_\_\_

Sample date 10/19/98

Sample time 1045

Sample Results

Soil: Benzene (ppm) 1,600  
 Total BTEX (ppm) 85,680  
 Field Headspace (ppm) 803  
 TPH (ppm) 1,390

Water: Benzene (ppb) \_\_\_\_\_  
 Toluene (ppb) \_\_\_\_\_  
 Ethylbenzene (ppb) \_\_\_\_\_  
 Total Xylenes (ppb) \_\_\_\_\_

Groundwater Sample:

Yes \_\_\_\_\_ 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

10/21/98

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 ☒

NO \_\_\_\_\_

(REASON)

R.A. Attached

SIGNED:

Kent M. M...ll

DATE:

11-18-98

ONSITE: 10/6/98 10/19/98

**Well Name:**  
**Well Site location:**  
**Pit Type:**  
**Producing Formation:**  
**Pit Category:**  
**Horizontal Distance to Surface Water:**  
**Vicinity Groundwater Depth:**

**Jicarilla Contract 146 #22**  
**Unit A, Sec. 10, T25N, R5W**  
**Separator Pit**  
**Basin Dakota**  
**Non Vulnerable**  
**> 1000 ft.**  
**> 100 ft.**

## **RISK ASSESSMENT (non-vulnerable area)**

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 5 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 sandstone bedrock located 5 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone 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 1.11 miles northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

**(Refer to Lapis Point Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (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 sandstone 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.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

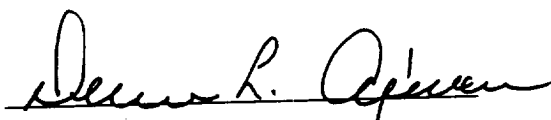
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 3'	Date Reported:	10-21-98
Laboratory Number:	E087	Date Sampled:	10-19-98
Chain of Custody No:	6304	Date Received:	10-21-98
Sample Matrix:	Soil	Date Extracted:	10-21-98
Preservative:	Cool	Date Analyzed:	10-21-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	897	0.2
Diesel Range (C10 - C28)	493	0.1
Total Petroleum Hydrocarbons	1,390	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 Contract #146 - 22 Separator Pit.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034-10
Sample ID:	4 @ 3'	Date Reported:	10-21-98
Laboratory Number:	E087	Date Sampled:	10-19-98
Chain of Custody:	6304	Date Received:	10-21-98
Sample Matrix:	Soil	Date Analyzed:	10-21-98
Preservative:	Cool	Date Extracted:	10-21-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,600	8.8
Toluene	15,950	8.4
Ethylbenzene	10,580	7.6
p,m-Xylene	36,570	10.8
o-Xylene	20,980	5.2
Total BTEX	85,680	

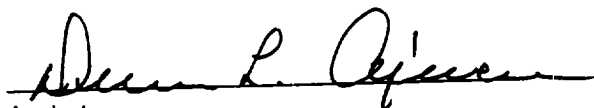
ND - Parameter not detected at the stated detection limit.

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 Contract #146 - 22 Separator Pit.

  
Analyst

  
Review

## 6304

ref acc. 6302-6305

**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	✓		

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

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

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>AMOCO PRODUCTION COMPANY</u>		Telephone: <u>(505) 326-9200</u>
Address: <u>200 Amoco Court, Farmington, NM 87401</u>		
Facility or Well Name: <u>JICARILLA CONTRACT 146-22</u>		
Location: Unit or Qtr/Qtr Sec <u>A</u> Sec <u>10</u> T <u>25N</u> R <u>5W</u> County <u>RIO ARIZONA</u>		
Land Type: <u>RANGE</u>		
Date Remediation Started: <u>10 6 98</u>		Date Completed: <u>4/21/99</u>
Remediation Method: Landfarmed <input checked="" type="checkbox"/>		Approx. cubic yards <u>400</u>
Composted <input type="checkbox"/>		
Other <input type="checkbox"/>		
Depth To Groundwater: (pts.) <u>0</u>	<b>Final Closure Sampling:</b>	
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>4-19-99</u> Time: <u>1030</u>	
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>	Sample Results:	
Wellhead Protection Area: (pts.) <u>0</u>	Field Headspace (ppm) <u>182.6</u> <span style="float: right;">TPH (8215) &amp; BTEX</span>	
Distance To Surface Water: (pts.) <u>0</u>	TPH (ppm) <u>2080</u> Method <u>(8021)</u>	
	Other <u>BENZENE = 0.139 ppm</u>	
	<u>TOT. BTEX = 8.250 ppm</u>	
RANKING SCORE (TOTAL POINTS): <u>0</u>		
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF		
DATE <u>4/21/99</u>	PRINTED NAME <u>Buddy D. Shaw</u>	
SIGNATURE <u>Buddy D. Shaw</u>	AND TITLE <u>Environmental Coordinator</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.		
APPROVED: YES <input type="checkbox"/> NO <input type="checkbox"/> (REASON) _____		
SIGNED: _____ DATE: _____		

CLIENT: <u>Amoco</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B5652</u> C.B.C. NO: <u>6893</u>
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# FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME <u>ICARILLA CONTRACT 140</u> WELL # <u>22</u>	PITS: <u>SEP, BLOW</u>	DATE STARTED: <u>4.19.99</u>
QUAD/UNIT <u>A</u> SEC: <u>10</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
STR. FOOTAGE: <u>NE/4 NE/4</u>	CONTRACTOR: <u>P+S</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

## REMEDIAL ACTION:

REMEDIAL SYSTEM: LANDFARM  
LAND USE: RANGE

APPROX. CUBIC YARDAGE: 400  
LIFT DEPTH (ft): 2'

## FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'  
NMOC RANGING SCOPE: 0 NMOC TPH CLOSURE STD: 5000 PPM

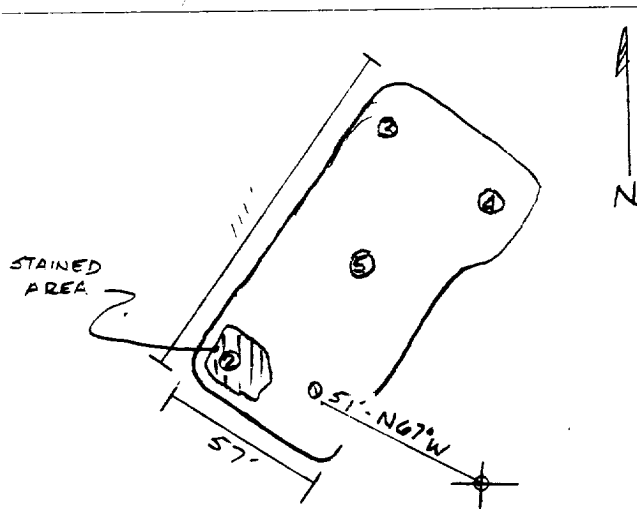
DK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.  
SMALL AREA OF STAINING OBSERVED, (SEE SKETCH BELOW) HC ODOR DETECTED AT SAMPLING PT. ④ SAMPLING DEPTHS RANGE FROM 6"-18" COLLECTED A 5 PT. COMPOSITE SAMPLE FOR LAB ANALYSIS

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 FID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	182.6	LF-1	TPH (8015)	1030	2080
		"	BENZENE	"	139 ppb
		"	TOT. BTEX	"	8250 ppb

## SCALE

0 1 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 4.19.99

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

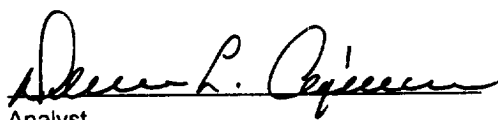
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-21-99
Laboratory Number:	F059	Date Sampled:	04-19-99
Chain of Custody No:	6893	Date Received:	04-20-99
Sample Matrix:	Soil	Date Extracted:	04-21-99
Preservative:	Cool	Date Analyzed:	04-21-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

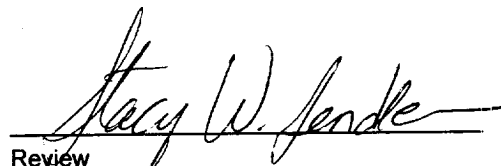
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	441	0.2
Diesel Range (C10 - C28)	1,640	0.1
Total Petroleum Hydrocarbons	2,080	0.2

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 Contract 146 - 22 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

# 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:	04-21-99
Laboratory Number:	F059	Date Sampled:	04-19-99
Chain of Custody:	6893	Date Received:	04-20-99
Sample Matrix:	Soil	Date Analyzed:	04-21-99
Preservative:	Cool	Date Extracted:	04-21-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	139	8.8
Toluene	1,890	8.4
Ethylbenzene	581	7.6
p,m-Xylene	3,120	10.8
o-Xylene	2,520	5.2
Total BTEX	8,250	

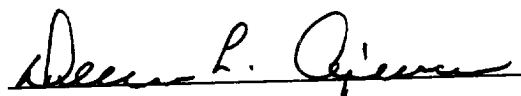
ND - Parameter not detected at the stated detection limit.

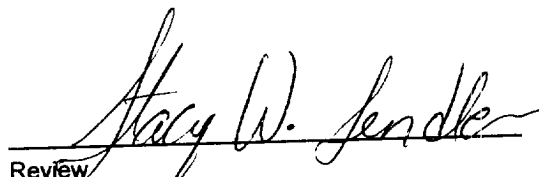
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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 Contract 146 - 22 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

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