

NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

AUG 18 1999

~~OIL CON. DIV.~~

Operator: AMOCO PRODUCTION COMPANY

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: TIGARILLA CONTRACT # 147 - 7E

Location: Unit or Qtr/Qtr Sec C Sec 8 T 25N R 5W County RIO ARIZONA

Pit Type: Separator Dehydrator Other BLOW

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 45' width 48' depth 16'

Reference: wellhead X, other

Footage from reference: 165'

Direction from reference: 31 Degrees X East of North X West South

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)

Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)

Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)

Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)

Less than 50 feet (20 points)

50 feet to 99 feet (10 points)

Greater than 100 feet (0 points)

Less than 100 feet (10 points)

Greater than 100 feet (0 points)

Less than 100 feet (10 points)

Greater than 100 feet (0 points)

Yes (20 points)

No (0 points)

Less than 100 feet (20 points)

100 feet to 1000 feet (10 points)

Greater than 1000 feet (0 points)

0

0

0

0

0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: \_\_\_\_\_ Date Completed: 8/17/98

Remediation Method: Excavation ☒ Approx. cubic yards 1000  
 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 TPH - NORTH SIDEWALL  
e 10' (0um = 0.0)

Sample depth 16' (PIT BOTTOM)

Sample date 8/17/98 Sample time 1045

## Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>388</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>ND</u>	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 8/17/98 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) \_\_\_\_\_

SIGNED: Ker C Manna DATE: 9-9-98

3003922341

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT606</u> C.O.C. NO: _____																																								
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																								
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<div style="border: 1px solid black; padding: 5px; display: inline-block;">BEDROCK BOTTOM</div>  <div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block;">RISK ASSESSED</div>  <div style="text-align: center;">SCALE</div> <div style="text-align: center;">0 <span style="display: inline-block; width: 20px; height: 10px; background: black; border: 1px solid black;"></span> FT</div>	<div style="text-align: center;">FIELD 418.1 CALCULATIONS</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>1045</td> <td>① e10'</td> <td>TPH-2013</td> <td>5</td> <td>20</td> <td>1:1</td> <td>5</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	1045	① e10'	TPH-2013	5	20	1:1	5	ND																								
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TRAVEL NOTES: CALLOUT: <u>8/12/98 - MORN.</u> ONSITE: <u>8/17/98 - MORN.</u>																																										

**Well Name:**

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

**Jicarilla Contract 147 #7E**

Unit C, Sec. 8, T25N, R5W

Blow Pit

Basin Dakota

Non Vulnerable

&gt; 1000 ft.

&gt; 100 ft.

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

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 16 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 16 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 0.70 miles northwest of the nearest vulnerable area boundary (Gonzales Canyon wash).

**(Refer to Gonzales Mesa 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 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.

**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:	1 @ 10'	Date Analyzed:	08-17-98
Project Location:	Jicarilla Contract # 147 - 7E	Date Reported:	08-17-98
Laboratory Number:	TPH-2013	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
-----	-----	-----
Total Recoverable Petroleum Hydrocarbons	<b>ND</b>	<b>20</b>

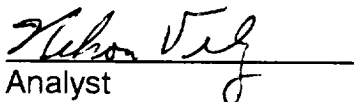
ND = Not Detectable at stated detection limits.

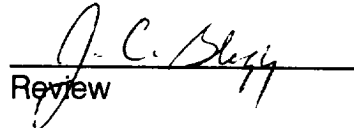
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	228	244	6.78

\*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 Pit - BJ606

  
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

1 @ 10'

Jicarilla Contract # 147 - 7E

TPH-2013

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

08-17-98

08-17-98

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

5 mg/kg

TPH Result:

20.0 mg/kg

Reported TPH Result:

20 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original  
TPH mg/kg

-----

228

Duplicate  
TPH mg/kg

-----

244

%  
Diff.

-----

6.78

Comments:

\*\*\*\*\*Max Characters\*\*\*\*\*

Comments:

Blow Pit - BJ606

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

BT606

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

**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 # 147 - 7E  
**Location:** Unit or Qtr/Qtr Sec C Sec 8 T 25N R 5W County RIO ARriba  
**Pit Type:** Separator ☒ Dhydrator ☐ Other ☐  
**Land Type:** RANGE

**Pit Location:** Pit dimensions: length 26', width 32', depth 22'  
(Attach diagram) Reference: wellhead ☒, other ☐  
Footage from reference: 180'  
Direction from reference: 60 Degrees ☒ East of North ☒  
West South

<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: 8/19/98

Remediation Method: Excavation ☒ Approx. cubic yards 600  
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.

Groundwater Encountered: No ☒ 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 16' (WEST SIDEWALL)

Sample date 8/17/98 Sample time 1200

Sample Results

Soil: Benzene	(ppm)	<u>1,550</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>170,170</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>902</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>4,500</u>	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 8/19/98 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) \_\_\_\_\_

SIGNED: Kate C Mamm DATE: 9-9-98



CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>87606</u> C.O.C. NO: <u>6045</u>
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JIC CONTR. 147</u> WELL #: <u>7E</u> PIT: <u>SEP</u> QUAD/UNIT: <u>C</u> SEC: <u>8</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>800'FWL</u> / <u>1620'FWL</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>8/17/98</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
---	---

EXCAVATION APPROX. <u>26</u> FT. x <u>32</u> FT. x <u>22</u> FT. DEEP.	CUBIC YARDAGE: <u>600</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>	
LAND USE: <u>RANGE</u> LEASE: <u>JIC 147</u> FORMATION: <u>OK</u>	

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>180</u> FT. <u>NGOE</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:	

SIDEWALLS - MOSTLY MOD. TO DARKY YELL. BROWN SILTY CLAY TO CLAY PLASTIC TO HIGHLY PLASTIC, SLIGHTLY MOIST, FIRM TO VERY STIFF, STAINING EVIDENT ON ALL SIDEWALLS @ VARYING THICKNESS & INTERVAL (FROM GRADE) STAINING HC ODOOR w/in EXCAVATION & ALL OVM SAMPLES.

BOTTOM - MED. GRAY BEDROCK (SHALE), VERY HARD, SLIGHT HC ODOOR IN OVM SAMPLE.

BEDROCK  
Bottom

Risk ASSESSMENT

FIELD 418.1 CALCULATIONS

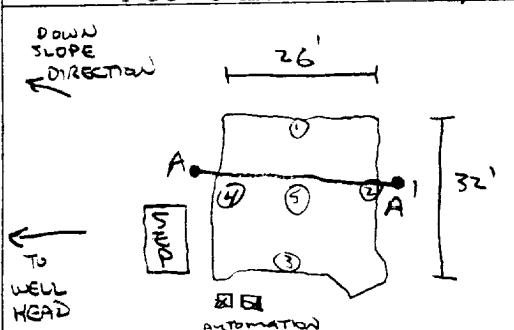
TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE



0 FT

PIT PERIMETER



OVM  
RESULTS

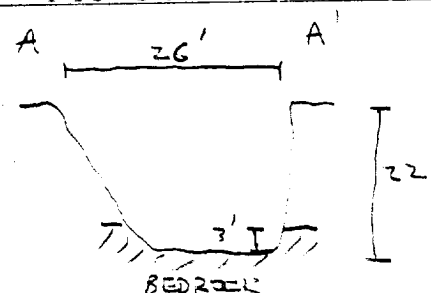
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 16'	820
2 @ 17'	723
3 @ 16'	824
4 @ 16'	902
5 @ 22'	31.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
4/6/6	TPH/BTEX	1200

TPH - PASSED  
TOT. BTEX - FAILED

PIT PROFILE



TRAVEL NOTES: CALLOUT: 8/12/98 - MORN. ONSITE: 8/17/98 - MORN.

<b>Well Name:</b>	<b>Jicarilla Contract 147 #7E</b>
Well Site location:	Unit C, Sec. 8, T25N, R5W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota
Pit Category:	Non Vulnerable
Horizontal 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 22 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 22 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 0.70 miles northwest of the nearest vulnerable area boundary (Gonzales Canyon wash).

**(Refer to Gonzales Mesa 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 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.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

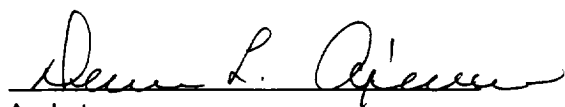
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 16'	Date Reported:	08-19-98
Laboratory Number:	D814	Date Sampled:	08-17-98
Chain of Custody No:	6045	Date Received:	08-18-98
Sample Matrix:	Soil	Date Extracted:	08-19-98
Preservative:	Cool	Date Analyzed:	08-19-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3,480	0.2
Diesel Range (C10 - C28)	1,020	0.1
Total Petroleum Hydrocarbons	4,500	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 #147 - 7E Separator Pit.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 IC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 16'	Date Reported:	08-19-98
Laboratory Number:	D814	Date Sampled:	08-17-98
Chain of Custody:	6045	Date Received:	08-18-98
Sample Matrix:	Soil	Date Analyzed:	08-19-98
Preservative:	Cool	Date Extracted:	08-19-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,580	17.5
Toluene	41,220	16.7
Ethylbenzene	1,280	15.2
p,m-Xylene	94,550	21.6
o-Xylene	31,540	10.4
Total BTEX	170,170	

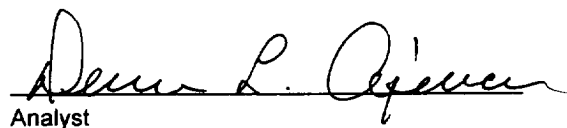
ND - Parameter not detected at the stated detection limit.

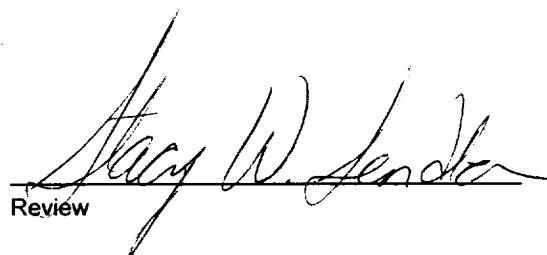
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	99 %

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 #147 - 7E Separator Pit.

  
Analyst

  
Review

6045

[illegible]

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

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT 147-7E

Location: Unit or Qtr/Qtr Sec C Sec 8 T25N R5W County RIO ARIZONA

Land Type: RANGE

Date Remediation Started: 8-17-98

Date Completed: 4/9/99

Remediation Method: Landfarmed ☒

Approx. cubic yards 1600

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: 4-7-99 Time: 0915

Sample Results: (LF-1)

Field Headspace (ppm) 72.5

TPH (ppm) (LF-1) 51.7 Method 8015

Other MULTIPLE SAMPLES - SEE ATTACHED

FORM

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

DATE 4/9/99 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 ☐ NO ☐ (REASON) \_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B5606</u>  C.O.C. NO: <u>6878</u>
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<b>FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION</b>		
LOCATION: NAME: <u>SPARILLA CONTRACT 147</u> WELL #: <u>7E</u> PITS: <u>SEP, BLOW</u> QUAD/UNIT: <u>C</u> SEC: <u>8</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>NE/4 NW/4</u> CONTRACTOR: <u>PJS</u>	DATE STARTED: <u>4-7-99</u> DATE FINISHED: _____  ENVIRONMENTAL SPECIALIST: <u>REP</u>	

SOIL REMEDIATION: REMEDIATION SYSTEM: <u>LANDFARM</u> APPROX. CUBIC YARDAGE: <u>1600</u> LAND USE: <u>RANGE</u> LIFT DEPTH (ft): <u>1-1.5</u>	
---	--

FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u> NMOCED RANKING SCORE: <u>0</u> NMOCED TPH CLOSURE STD: <u>5000</u> PPM MODERATE YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM. NO APPARENT STAINING, NO HC ODOR DETECTED. SAMPLING DEPTHS RANGE FROM 6"-18". TOOK TWO SPT COMPOSITE SAMPLES FOR LAB ANALYSIS.	
<div style="border: 1px solid black; border-radius: 15px; display: inline-block; padding: 5px 15px;">CLOSED</div>	

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	72.5
LF-2	8.9

### LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TFH (BOIS)	0915	51.7
LF-2	TFH (BOIS)	0930	7.0

SCALE

0

FT

TRAVEL NOTES: CALLOUT: <u>N/A</u>	ONSITE: <u>4 7 99</u>
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

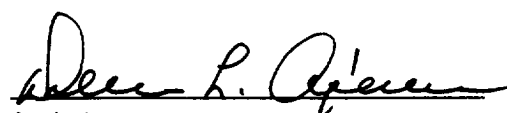
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-09-99
Laboratory Number:	E984	Date Sampled:	04-07-99
Chain of Custody No:	6878	Date Received:	04-08-99
Sample Matrix:	Soil	Date Extracted:	04-08-99
Preservative:	Cool	Date Analyzed:	04-09-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

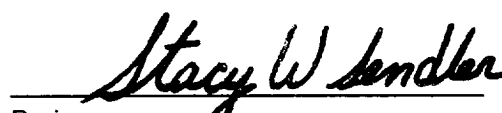
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	10.5	0.2
Diesel Range (C10 - C28)	41.2	0.1
Total Petroleum Hydrocarbons	51.7	0.2

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 147 - 7E Landfarm. 5 Pt. Composite.

  
Analyst

  
Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

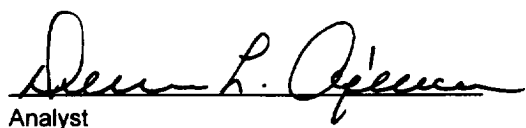
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 2	Date Reported:	04-09-99
Laboratory Number:	E985	Date Sampled:	04-07-99
Chain of Custody No:	6878	Date Received:	04-08-99
Sample Matrix:	Soil	Date Extracted:	04-08-99
Preservative:	Cool	Date Analyzed:	04-09-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

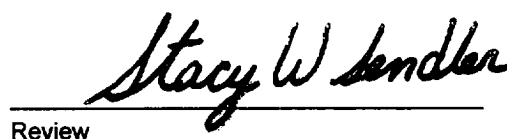
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.2	0.2
Diesel Range (C10 - C28)	3.8	0.1
Total Petroleum Hydrocarbons	7.0	0.2

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 Contract 147 - 7E Landfarm. 5 Pt. Composite.

  
Analyst

  
Review

## 6878

Client / Project Name			Project Location			ANALYSIS / PARAMETERS						
BLACK/AR-020			SIADUA CONTRACT 147.7E									
Sampler: REP			Client No. 0403410									
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Remarks						
LF-1	4.7.99	0915	E984	SOIL	1 TH (0015)	SPT. CORRSITE						
LF-2	4.7.99	0930	E985	SOIL	1 ✓	SAMPLES RESSUE COOL						
Relinquished by: (Signature) <i>[Signature]</i>			Date 4.8.99	Time 7:40	Received by: (Signature) <i>[Signature]</i>	Date 4.8.99	Time 240					
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					✓							