

Manager Forest
DEPUTY OIL & GAS INSPECTOR

OCT 08 1999

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

Blow - Risk - bedrock
87559

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT

Sep/Tank
Drain

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 148-174 (43)
Location: Unit or Qtr/Qtr Sec P Sec 15 T 25N R 5W County RIO ARIZONA
Pit Type: Separator Dehydrator Other BLOW
Land Type: RANGE

Pit Location: Pit dimensions: length 44', width 30', depth 23'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 120'
Direction from reference: 40 Degrees X East of North
 West South X

Depth To Groundwater:

(Vertical distance from
contaminants to seasonal
high water elevation of
groundwater)

RECEIVED
AUG 24 1999

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to an Ephemeral Stream

(Downgradient dry wash greater than
ten feet in width)

OIL CON. DIV.
DIST. 3

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

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

RANKING SCORE (TOTAL POINTS): 0

BTSS9

BLOW PIT

Date Remediation Started: _____ Date Completed: 6/3/98

Remediation Method: Excavation ☒ Approx. cubic yards 500
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. MULTIPLE SAMPLES

Sample depth 15' (WEST SIDEWALL)

Sample date 6/3/98 Sample time 1245

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</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 6/3/98 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: Kent Mamm DATE: 6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT559</u> C.O.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICA CONTR. 148</u> WELL #: <u>174</u> PIT: <u>BLOW</u>	DATE STARTED: <u>6/3/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>P SEC: 15 TWP: 25N RNG: SW PM: NM CNTY: RA ST: NM</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>SE/4 SE/4</u> CONTRACTOR: <u>P+S</u>	

EXCAVATION APPROX. <u>44</u> FT. x <u>30</u> FT. x <u>23</u> FT. DEEP. CUBIC YARDAGE: <u>500</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u> LEASE: <u>JIC 148</u> FORMATION: <u>PC</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>120</u> FT. <u>540E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>7100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>

NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM	CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
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SOIL AND EXCAVATION DESCRIPTION:

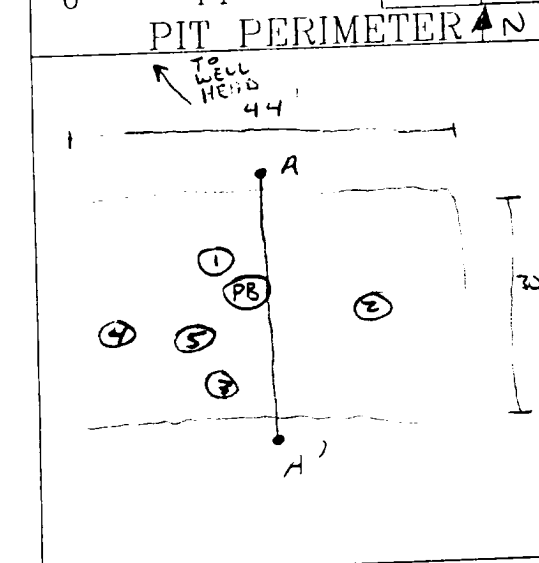
SIDEWALLS - MOSTLY PINE ORANGE TO MOD. YELL. BROWN SAND NON COHESIVE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING OR HC ODOOR OBSERVED W/IN EXCAVATION NO APPARENT HC ODOOR DETECTED IN ANY OF THE DIRT SAMPLES.

BOTTOM - BEDROCK (SANDSTONE) DUNE TO MED. GRAY IN COLOR, VERY HARD, STRONG HC ODOOR IN DIRT SAMPLE.

BEDROCK BOTTOM	RISK ASSESSED	FORMERLY NAMED 148-43
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FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	ML FREON	DILUTION	READING	CALC. ppm
1245	4E18' TPH-1956		5	20	1:1	4	ND

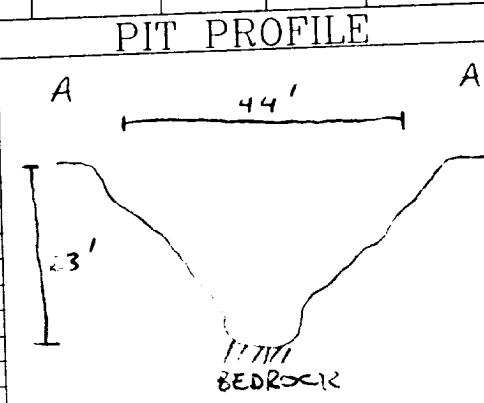


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1E17'	0.0
2E16'	0.0
3E17'	0.0
4E18'	0.0
5E23'	214.8
PB12'	252

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
PB12'	TPH BTEX	1245 5/28
	TPH - PASSED	
	BTEX - FAILED	



TRAVEL NOTES: CALLOUT: <u>6/2/98 - MORN.</u> ONSITE: <u>6/3/98 - AFTER.</u>

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #17Y

Unit P, Sec. 15, T25N, R5W

Blow Pit

Pictured Cliffs

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 23 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 23 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 1.00 miles east of the nearest vulnerable area boundary (Lapis Valley 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 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.

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

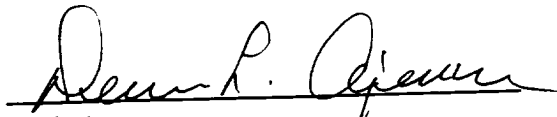
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	PB @ 12'	Date Reported:	05-29-98
Laboratory Number:	D313	Date Sampled:	05-28-98
Chain of Custody No:	6003	Date Received:	05-28-98
Sample Matrix:	Soil	Date Extracted:	05-29-98
Preservative:	Cool	Date Analyzed:	05-29-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

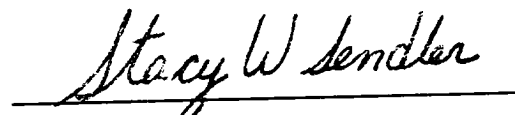
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	905	0.2
Diesel Range (C10 - C28)	3,930	0.1
Total Petroleum Hydrocarbons	4,840	0.2

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: ⁹²⁵
Jicarilla Contract 148-474 ¹⁷⁸ **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:	PB @ 12'	Date Reported:	05-29-98
Laboratory Number:	D313	Date Sampled:	05-28-98
Chain of Custody:	6003	Date Received:	05-28-98
Sample Matrix:	Soil	Date Analyzed:	05-29-98
Preservative:	Cool	Date Extracted:	05-29-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,930	17.5
Toluene	12,590	16.7
Ethylbenzene	4,170	15.2
p,m-Xylene	40,700	21.6
o-Xylene	17,910	10.4
Total BTEX	77,300	

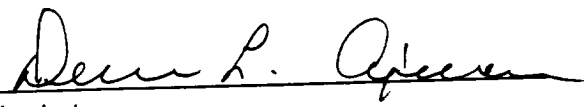
ND - Parameter not detected at the stated detection limit.

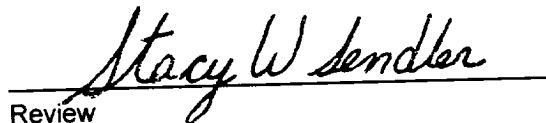
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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 148-⁷⁵~~174~~ Blow Pit.
17 Y


Analyst


Review

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
Sample ID: 4 @ 18'
Project Location: Jicarilla Contract 148 - 17Y
Laboratory Number: TPH-1986

Project #:
Date Analyzed: 06-03-98
Date Reported: 06-03-98
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	ND	20

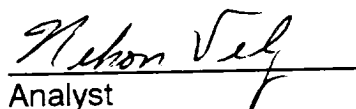
ND = Not Detectable at stated detection limits.

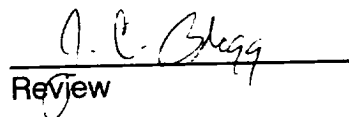
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1684	1712	1.65

*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 - BJ559


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

4 @ 18'

Jicarilla Contract 148 - 17Y

TPH-1986

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

06-03-98

06-03-98

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

4 mg/kg

TPH Result:

16.0 mg/kg

Reported TPH Result:

16 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original
TPH mg/kg

1684

Duplicate
TPH mg/kg

1712

%
Diff.

1.65

Comments:

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

Comments:

Blow Pit - BJ559

87559

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

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

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTRACT 148-174

Location: Unit or Qtr/Qtr Sec P Sec 15 T 25N R 5W County RIO ARRIBA

Pit Type: Separator ☒ Dehydrator ☐ Other PRODUCTION TANK

Land Type: RANGE

Pit Location: (Attach diagram) Pit dimensions: length 22', width 21', depth 16'

Reference: wellhead ☒, other ☐

Footage from reference: 135'

Direction from reference: 27 Degrees ☐ East of North ☐
☒ 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

8J559

SEP/PROD. TANK PIT

Date Remediation Started: _____

Date Completed: _____

6/1/98

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

Approx. cubic yards 200

Insitu Bioremediation _____

Remediation Location: _____

Onsite ☒ Offsite _____(i.e. landfarmed onsite,
name and location of
offsite facility)

General Description of Remedial Action: Excavation

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 _____

11' (NORTH SIDEWALL)

Sample date _____

5/28/98

Sample time _____

1215

Sample Results

Soil: Benzene

(ppm) _____

Water: Benzene

(ppb) _____

Total BTEX

(ppm) _____

Toluene

(ppb) _____

Field Headspace

(ppm) _____

27.5

Ethylbenzene

(ppb) _____

TPH

(ppm) _____

0.8

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

6/1/98

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 ☒ NO _____

(REASON) _____

SIGNED: _____

K. C. McCall

DATE: _____

6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>81559</u> C.O.C. NO: <u>6003</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA CONTR. 148</u> WELL #: <u>174</u> PIT: <u>SEP/PROD.</u>		DATE STARTED: <u>5/28/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>P SEC: 15</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>SE/4 SE/4</u> CONTRACTOR: <u>P&S</u>		

EXCAVATION APPROX. <u>22</u> FT. x <u>21</u> FT. x <u>16</u> FT. DEEP.	CUBIC YARDAGE: <u>200</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIAL METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 148</u> FORMATION: <u>OK</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>135</u> FT. <u>527W</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMOC RANKING SCORE: <u>0</u>	NMOC TPH CLOSURE STD: <u>5000</u> PPM

SOIL AND EXCAVATION DESCRIPTION:

MOSTLY OK. YELL. FLOWN SILTY SAND, NON COHESIVE SLIGHTLY MOIST, FIRM POSSIBLE STAINING (STRINGERS) OBSERVED ON NORTH, EAST, & SOUTH SIDEWALLS NO APPARENT HC ODOOR OBSERVED WITH EXCAVATION NO APPARENT HC ODOOR OBSERVED IN ANY OF THE OVM SAMPLES.

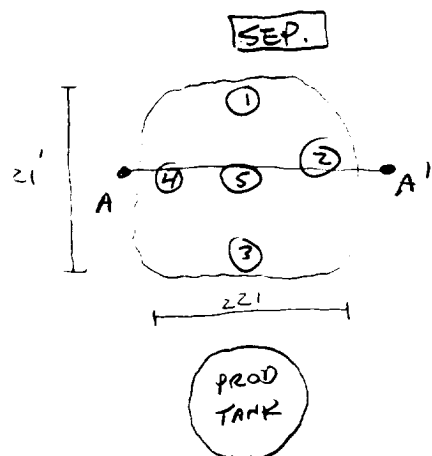
CLOSED

SCALE
0 FT

FORMERLY NAMED 148-43
FIELD 418.1 CALCULATIONS

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

PIT PERIMETER



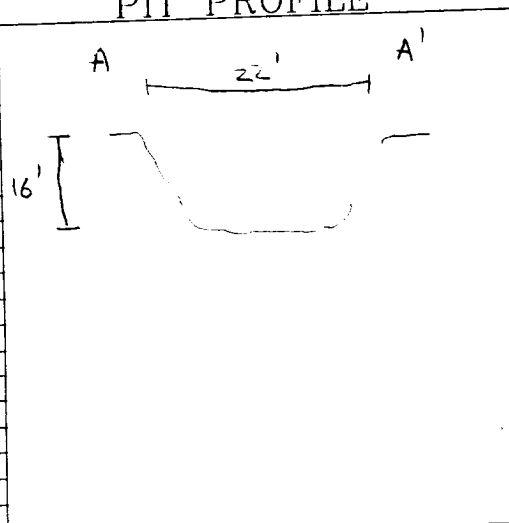
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 11'	27.5
2 @ 11'	0.0
3 @ 10'	0.0
4 @ 10'	0.0
5 @ 18 1/2'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
1 @ 11'	TPH	1215
PASSED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: 5/27/98 - AFTER. ONSITE: 5/28/98 - MORN.

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

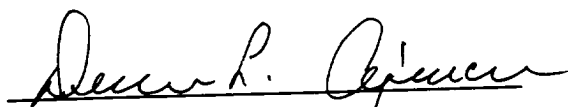
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	1 @ 11'	Date Reported:	05-29-98
Laboratory Number:	D312	Date Sampled:	05-28-98
Chain of Custody No:	6003	Date Received:	05-28-98
Sample Matrix:	Soil	Date Extracted:	05-29-98
Preservative:	Cool	Date Analyzed:	05-29-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

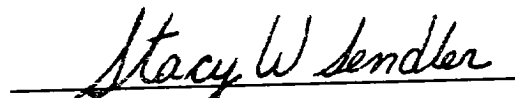
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.6	0.2
Diesel Range (C10 - C28)	0.2	0.1
Total Petroleum Hydrocarbons	0.8	0.2

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 148-174 Separator / Production Tank Pit.


Analyst


Review

CHAIN OF CUSTODY RECORD

6003

Client / Project Name		Project Location		ANALYSIS / PARAMETERS															
BROS / Amoco		JEAQUIN CONTRACT 148-177																	
Sampler: NTV		Client No. 04034-10		No. of Containers		TPH (8015)		BTX (8021)		Remarks									
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix															
0211'	5/28/98	1215	D32	SOIL	1	✓	✓				SEPARATE/REMOVED TANK PT								
P8 @ 12'	5/28/98	1245	P313	SOIL	1	✓	✓				BLOW PT								
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date		Time											
[Signature]		5/28/98	1446	[Signature]		5-25-98		1446											
Relinquished by: (Signature)																			
Relinquished by: (Signature)																			
<div style="display: flex; justify-content: space-between;"> <div> <p>ENVIROTECH INC.</p> <p>5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615</p> </div> <div> <p>Sample Receipt</p> <table border="1"> <tr> <td>Received Intact</td> <td>Y</td> <td>N</td> <td>N/A</td> </tr> <tr> <td>Cool - Ice/Blue Ice</td> <td>✓</td> <td></td> <td></td> </tr> </table> </div> </div>												Received Intact	Y	N	N/A	Cool - Ice/Blue Ice	✓		
Received Intact	Y	N	N/A																
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 148 - 174</u>		
Location: Unit or Qtr/Qtr Sec <u>A</u> Sec <u>15</u> T <u>25N</u> R <u>5W</u> County <u>BLA</u>		
Land Type: <u>RANGE</u>		
Date Remediation Started: <u>6 3 98</u>		Date Completed: <u>1 13 99</u>
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Composted <input type="checkbox"/> Other <input type="checkbox"/>		Approx. cubic yards <u>875</u>
Depth To Groundwater: (pts.) <u>0</u>		Final Closure Sampling: Sampling Date: <u>1 11 99</u> Time: <u>1240</u> Time: <u>1315</u> Sample Results: Field Headspace (ppm) <u>0.0</u> TPH (ppm) <u>1080</u> Method <u>80.5</u> Other <u>MULTIPLE SAMPLES - SEE ATTACHED FORM</u>
Distance to an Ephemeral Stream (pts.) <u>0</u>		
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>		
Wellhead Protection Area: (pts.) <u>0</u>		
Distance To Surface Water: (pts.) <u>0</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>1/13/99</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 checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) _____		
SIGNED: <u>K. C. Shaw</u>		DATE: <u>3-31-99</u>

CLIENT: AMOCOBLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199LOCATION NO: 85559C.D.C. NO: 4541

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA CONTRACT 14B WELL #: 174 PITS: SEP, PROD., BLOW
QUAD/UNIT: P SEC: 15 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM
DTP/FDOTAGE: SE/4 SE/4 CONTRACTOR: P+SDATE STARTED: 1.11.99DATE FINISHED: 1.13.99ENVIRONMENTAL
SPECIALIST: REP

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 875LAND USE: RANGELIFT DEPTH (ft): 1-2

FIELD NOTES & REMARKS:

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

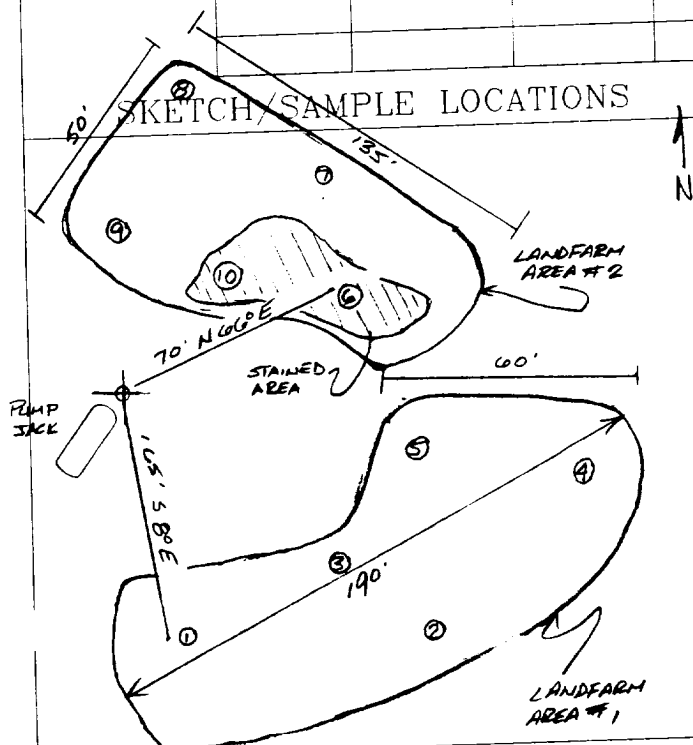
DK. YELLOW ORANGE TO LT BROWN SAND. NON COHESIVE, SLIGHTLY MOIST, FIRM.
LARGE AREA OF STAINING OBSERVED IN LANDFARM AREA #2 SEE SKETCH BELOW
SLIGHT H.C. ODOR IN SAMPLE POINTS ⑥ + ⑩. SAMPLING DEPTHS RANGE FROM
6" - 18" TOOK A SPT. COMPOSITE SAMPLE FROM BOTH LANDFARMS FOR LAB
ANALYSIS

CLOSED

APPROX. 175 C.Y. DEPOSED
FROM 148-17.

FIELD 418.1 CALCULATIONS

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



OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	1290	1080
LF-2	0.0	LF-2	" "	1315	834

SCALE

0 FT

TRAVEL NOTES:

CALLOUT:

N/A

ONSITE:

1.11.99

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

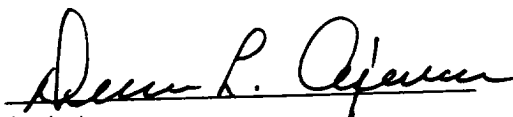
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	01-13-99
Laboratory Number:	E489	Date Sampled:	01-11-99
Chain of Custody No:	6541	Date Received:	01-12-99
Sample Matrix:	Soil	Date Extracted:	01-12-99
Preservative:	Cool	Date Analyzed:	01-13-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	15.7	0.2
Diesel Range (C10 - C28)	1,060	0.1
Total Petroleum Hydrocarbons	1,080	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 148 - 17Y Landfarm. 5 Pt. Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

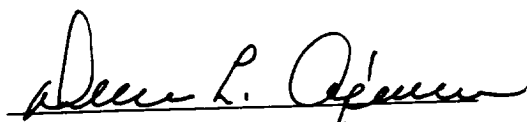
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 2	Date Reported:	01-13-99
Laboratory Number:	E490	Date Sampled:	01-11-99
Chain of Custody No:	6541	Date Received:	01-12-99
Sample Matrix:	Soil	Date Extracted:	01-12-99
Preservative:	Cool	Date Analyzed:	01-13-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	13.5	0.2
Diesel Range (C10 - C28)	820	0.1
Total Petroleum Hydrocarbons	834	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 148 - 17Y Landfarm. 5 Pt. Composite.


Analyst


Review

6541

Ref acc's 6541-6544