

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

OK
BT468

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

RECEIVED
AUG 27 1999

PIT REMEDIATION AND CLOSURE REPORT

OIL CON. DIV.

DIST. 3

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA CONTRACT 155 - 8
Location: Unit or Qtr/Qtr Sec J Sec 29 T 26N R 5W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW
Land Type: RANGE

Pit Location: Pit dimensions: length 70', width 85', depth 12'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 230'
Direction from reference: 71 Degrees East of North X
X West of South

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)	<u>20</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>10</u>

RANKING SCORE (TOTAL POINTS): 30

Date Remediation Started: _____ Date Completed: 11/6/96Remediation Method: Excavation ☒Approx. cubic yards 2,500Check all appropriate
options)Landfarmed ☒

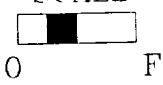
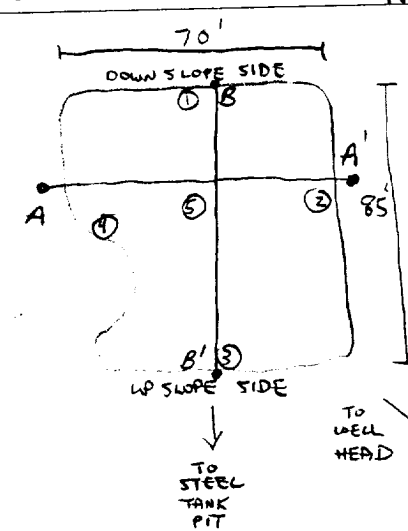
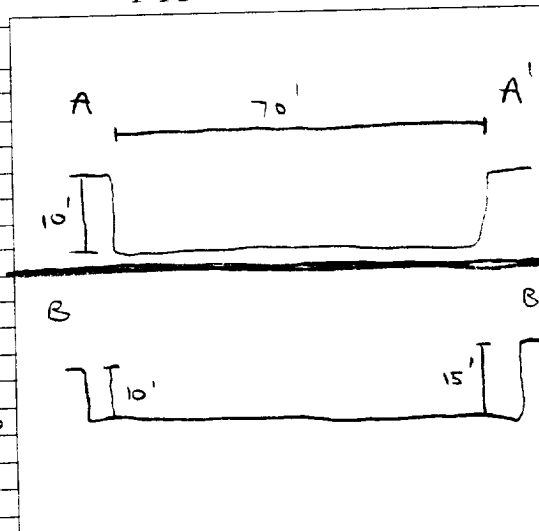
Insitu Bioremediation _____

Other _____

Remediation Location: Onsite ☒ Offsite _____
(i.e. landfarmed onsite,
name and location of
offsite facility)General Description of Remedial Action: ExcavationGroundwater 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 DocumentsSample depth 15'Sample date 11/5/96 Sample time 1100

Sample Results

Soil: Benzene (ppm) 0.165 Water: Benzene (ppb) _____Total BTEX (ppm) 7.30 Toluene (ppb) _____Field Headspace (ppm) 311 Ethylbenzene (ppb) _____TPH (ppm) 74.1 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 BELIEFDATE 11/6/96 PRINTED NAME Buddy D. ShawSIGNATURE Buddy D. Shaw AND TITLE Environmental CoordinatorAFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE
TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.APPROVED: YES ☒ NO _____ (REASON) Groundwater monitoring required.SIGNED: Patrick J. [Signature] DATE: 11/13/96

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT468</u> C.O.C. NO: <u>4968</u>																																
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																
LOCATION: NAME: <u>JICARINA CONTRACT</u> WELL #: <u>155-8</u> PIT: <u>BLOW</u>		DATE STARTED: <u>11/5/96</u> DATE FINISHED: _____																																
QUAD/UNIT: <u>J</u> SEC: <u>29</u> TWP: <u>26N</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>NW/4 SE/4</u> CONTRACTOR: <u>P+S</u>																																		
EXCAVATION APPROX. <u>70</u> FT. x <u>85</u> FT. x <u>12</u> FT. DEEP. CUBIC YARDAGE: <u>2,500</u>																																		
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>																																		
LAND USE: <u>RANGE</u> LEASE: <u>JICA CONTRACT 155</u> FORMATION: <u>SBPC</u>																																		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>230</u> FT. <u>N71W</u> FROM WELLHEAD.																																		
DEPTH TO GROUNDWATER: <u>550'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u><1000'</u>																																		
NMDCD RANKING SCORE: <u>30</u> NMDCD TPH CLOSURE STD: <u>100</u> PPM																																		
SOIL AND EXCAVATION DESCRIPTION:																																		
SIDEWALLS= MOSTLY DR. YELL. ORANGE SAND w/ SOME CLAY LENSES, NON-COHESIVE, SLIGHTLY MOIST, FIRM TO VERY STIFF (CLAY), NO APPARENT HC ODOR IN OUM SAMPLES, NO APPARENT HC STAINING OR ODOR OBSERVED. BOTTOM - MED. GRAY SAND TO DR. YELL. BROWN CLAY (PLASTIC) SATURATED, OUM & LAB SAMPLES COLLECTED RIGHT AT GROUNDWATER LEVEL, STRONG HC ODOR IN OUM SAMPLE.																																		
<u>CLOSED</u> SCALE  0 FT FIELD 418.1 CALCULATIONS <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> </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																								
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm																											
PIT PERIMETER 	OVM RESULTS <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1 @ 12'</td><td>0.0</td></tr> <tr><td>2 @ 12'</td><td>0.0</td></tr> <tr><td>3 @ 12'</td><td>0.0</td></tr> <tr><td>4 @ 11'</td><td>0.0</td></tr> <tr><td>5 @ 15'</td><td>311</td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 @ 12'	0.0	2 @ 12'	0.0	3 @ 12'	0.0	4 @ 11'	0.0	5 @ 15'	311	PIT PROFILE 																				
SAMPLE ID	FIELD HEADSPACE PID (ppm)																																	
1 @ 12'	0.0																																	
2 @ 12'	0.0																																	
3 @ 12'	0.0																																	
4 @ 11'	0.0																																	
5 @ 15'	311																																	
LAB SAMPLES <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>5 @ 15'</td> <td>BTEX/TPH (TOLU) (XOIS)</td> <td>1100</td> </tr> </tbody> </table>			SAMPLE ID	ANALYSIS	TIME	5 @ 15'	BTEX/TPH (TOLU) (XOIS)	1100																										
SAMPLE ID	ANALYSIS	TIME																																
5 @ 15'	BTEX/TPH (TOLU) (XOIS)	1100																																
TRAVEL NOTES: CALLOUT: <u>11/4/96 AFTER.</u> ONSITE: <u>11/5/96 MORN.</u>																																		

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

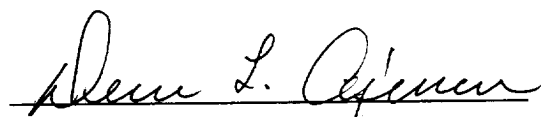
Client:	Blagg / Amoco	Project #:	04034
Sample ID:	5 @ 15'	Date Reported:	11-06-96
Laboratory Number:	A727	Date Sampled:	11-05-96
Chain of Custody No:	4968	Date Received:	11-06-96
Sample Matrix:	Soil	Date Extracted:	11-06-96
Preservative:	Cool	Date Analyzed:	11-06-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	7.9	0.2
Diesel Range (C10 - C28)	66.2	0.1
Total Petroleum Hydrocarbons	74.1	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla Contract 155 - 8 Blow Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	04034
Sample ID:	5 @ 15'	Date Reported:	11-06-96
Laboratory Number:	A727	Date Sampled:	11-05-96
Chain of Custody:	4968	Date Received:	11-06-96
Sample Matrix:	Soil	Date Analyzed:	11-06-96
Preservative:	Cool	Date Extracted:	11-06-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	165	17.5
Toluene	505	16.7
Ethylbenzene	259	15.2
p,m-Xylene	4,910	20.0
o-Xylene	1,460	10.4
Total BTEX	7,300	

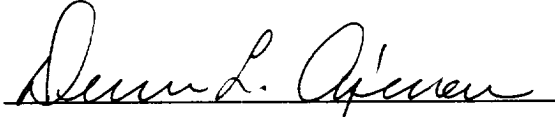
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	99 %

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: Jicarilla Contract 155 - 8 Blow Pit.


Analyst


Review

MAN HUAN REPORT Form 570-01

BJ468

**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 155 - 8

Location: Unit or Qtr/Qtr Sec J Sec 29 T26N R5W County RIO ARriba

Land Type: RANGE

Date Remediation Started: 11/5/96 **Date Completed:** 6/8/99

Remediation Method: Landfarmed ☒ **Approx. cubic yards** 2,500

Composted ☐

Other STOCKPILES (ORIGINALLY LANDFARMED)

Depth To Groundwater: (pts.) 20

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.) 10

RANKING SCORE (TOTAL POINTS): 30

Final Closure Sampling:

Sampling Date: 6/7/99 **Time:** 1225

Sample Results:

Field Headspace (ppm) 20.6

TPH (ppm) 8.3 **Method** 8015

Other PREVIOUSLY SAMPLED ON THREE

OTHER OCCASIONS.

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

DATE 6/8/99 **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>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8J468</u> C.O.C. NO: <u>5384</u> <u>9/11/97 - 5405</u>
----------------------	---	--

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>JCARUA CONTR. 155 WELL # 6</u> PITS: <u>BLW</u> QUAD/UNIT: <u>J</u> SEC: <u>29</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>NW1/4 SE1/4</u> CONTRACTOR: <u>P & S</u>	DATE STARTED: <u>8/19/97</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
---	---

SOIL REMEDIATION:

 REMEDIATION SYSTEM: STOCKPILED

 APPROX. CUBIC YARDAGE: 2,500

 LAND USE: RANGE

 LIFT DEPTH (ft): NA

FIELD NOTES & REMARKS:

 DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <1000'

 NMOLD RANKING SCORE: 30 NMOLD TPH CLOSURE STD: 100 PPM

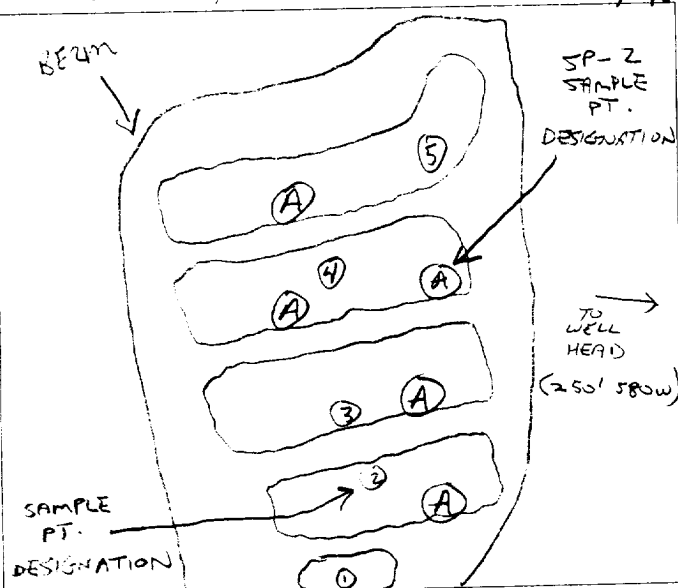
MOSTLY DR. YELL. BROWN SAND TO SILTY SAND W/ SOME CLAY, NON COHESIVE, SLIGHTLY MOIST FIRM. SAMPLE PT. ⑤ CONTAINED BLACK DISCOLORATION W/ STRONG HC ODOR. MATERIAL ORIGINALLY LANDFARMED, HC ODOR OBSERVED IN OVM SAMPLE. 5 PT. COMPOSITE COLLECTED FOR LAB ANALYSIS. PRIOR TO 9/11/97 SAMPLING EVENT STOCKPILES HAD BEEN REWORKED ON SEVERAL OCCASIONS. 2ND 5 PT. COMPOSITE COLLECTED FOR LAB ANALYSIS. NO DISCOLORATION OBSERVED ON 2ND SAMPLING EVENT.

FIELD 418.1 CALCULATIONS

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

DISCOLORATION OBSERVED ON 2ND SAMPLING EVENT.

SKETCH/SAMPLE LOCATIONS



SP-2 SAMPLED ON 9/11/97

SP-3 SAMPLED ON 10/8/98

LF-1 SAMPLED ON 6/7/99

OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
SP-1	69.1	SP-1	TPH (8015)	0830	1120
SP-2	20.6	SP-2	TPH (8015)	1125	162
		SP-3	TPH (8015)	1320	246
		LF-1	TPH (8015)	1230	8.3

SCALE

0 FT

 TRAVEL NOTES: CALLOUT: NV

 ONSITE: 8/19/97, 9/11/97

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

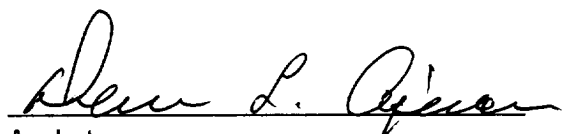
Client:	Blagg / Amoco	Project #:	04034-10
Sample ID:	SP - 1	Date Reported:	08-20-97
Laboratory Number:	B883	Date Sampled:	08-19-97
Chain of Custody No:	5384	Date Received:	08-19-97
Sample Matrix:	Soil	Date Extracted:	08-19-97
Preservative:	Cool	Date Analyzed:	08-20-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

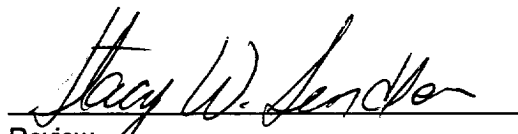
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	22.4	0.2
Diesel Range (C10 - C28)	1,100	0.1
Total Petroleum Hydrocarbons	1,120	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **Jicarilla Contract 155-8 Stockpiles. 5 pt. Composite.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

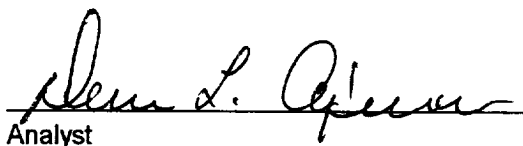
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	SP - 2	Date Reported:	09-12-97
Laboratory Number:	C024	Date Sampled:	09-11-97
Chain of Custody No:	5405	Date Received:	09-11-97
Sample Matrix:	Soil	Date Extracted:	09-11-97
Preservative:	Cool	Date Analyzed:	09-12-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

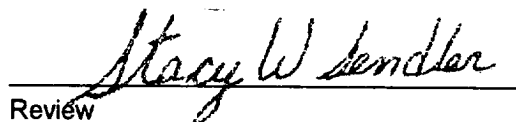
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.8	0.2
Diesel Range (C10 - C28)	157	0.1
Total Petroleum Hydrocarbons	162	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla Contract 155 - 8 Stockpiles. 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
Sample ID: SP - 3
Laboratory Number: E049
Chain of Custody No: 6291
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

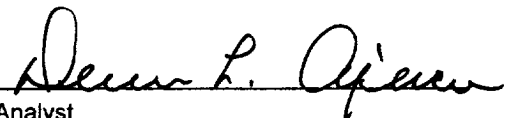
Project #: 04034-10
Date Reported: 10-10-98
Date Sampled: 10-08-98
Date Received: 10-09-98
Date Extracted: 10-09-98
Date Analyzed: 10-09-98
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	246	0.1
Total Petroleum Hydrocarbons	246	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 #155 - 8 Stockpiles 5 Pt. Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

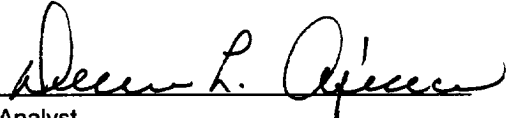
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	06-08-99
Laboratory Number:	F469	Date Sampled:	06-07-99
Chain of Custody No:	6695	Date Received:	06-08-99
Sample Matrix:	Soil	Date Extracted:	06-08-99
Preservative:	Cool	Date Analyzed:	06-08-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.3	0.2
Diesel Range (C10 - C28)	5.0	0.1
Total Petroleum Hydrocarbons	8.3	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 #155 - 8 Landfarm.


Analyst


Review

[illegible]

[illegible]

6291

[illegible]

555

[illegible]