

Blow - OK
SIP - OK
- 87697

RECEIVED
AUG 27 1999

OIL CON. DIV.
DIST. 3

RANKING SCORE (TOTAL POINTS): _____

BJ697

BLW PIT

Date Remediation Started: _____ Date Completed: 12/2/98Remediation Method: Excavation ☒
(Check all appropriate sections) Landfarmed ☒Approx. cubic yards 830

Insitu Bioremediation _____

Other _____

Remediation Location:
(i.e. landfarmed onsite,
name and location of
offsite facility)Onsite ☒ Offsite ☒ JICARILLA CONTRACT #155-10 (M-30-26-5)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 DocumentsSample depth 9' (SOUTH SIDEWALL)Sample date 12/1/98 Sample time 1040

Sample Results

Soil: Benzene	(ppm)	<u>0.144</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>5.510</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>356</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>224</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 12/2/98 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 Mammell DATE: 12-28-98

22347

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>87697</u> C.D.C. NO: <u>6415</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA CONTR. 155</u> WELL #: <u>13M</u> PIT: <u>BLOW</u>		DATE STARTED: <u>12/1/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>2</u> SEC: <u>30</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>1560' FSL</u> <u>790' FWL</u> CONTRACTOR: <u>P+S</u>		

EXCAVATION APPROX. <u>45</u> FT. x <u>49</u> FT. x <u>14</u> FT. DEEP. CUBIC YARDAGE: <u>830</u>
DISPOSAL FACILITY: <u>ON-SITE</u> <u>JICA CONTR. 155-10</u> REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u> LEASE: <u>JICA 155</u> FORMATION: <u>OR/MV/CIR</u>


FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>263</u> FT. <u>S28 E</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:	

SIDEWALLS - DR. YELL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST FIRM, DUSKY RED CLAY NEAR PIT BOTTOM SLOPING DOWNWARD FROM WEST TO EAST (SEE PIT PROFILE SCHEMATIC), PLASTIC, MOIST STIFF TO VERY STIFF, NO NOTICEABLE STRAINING, NO APPARENT HC ODOR W/IN EXCAVATION, STRONG HC ODOR IN SOUTH & WEST SIDEWALL DUM SAMPLES.

BOTTOM - BEDROCK (SHALE), LT. GRAY IN COLOR, HARD, NO APPARENT HC ODOR IN DUM SAMPLE.

BEDROCK BOTTOM

SCALE



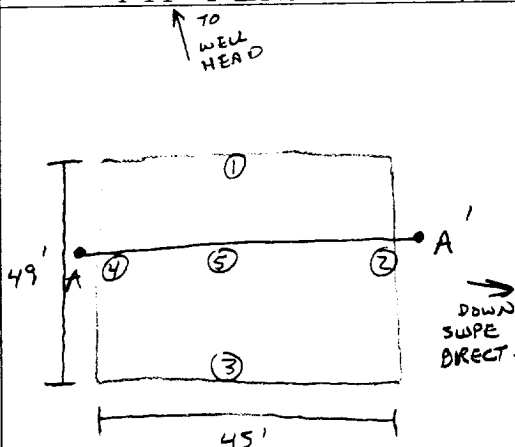
0 FT

CLOSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1040							

PIT PERIMETER



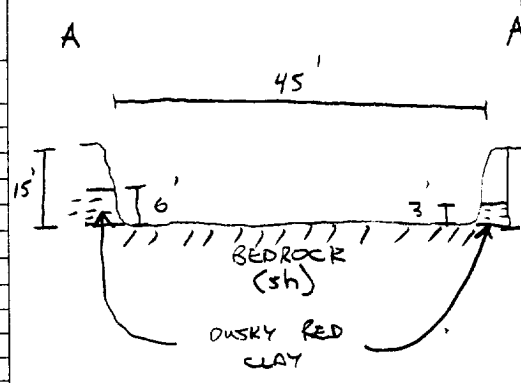
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PHD (ppm)
1 @ 8'	0.0
2 @ 8'	0.0
3 @ 9'	356
4 @ 9'	212.9
5 @ 14'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
③ @ 9'	TPH BTX	1040
BOTH PASSED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

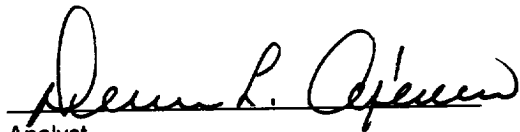
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	3 @ 9'	Date Reported:	12-02-98
Laboratory Number:	E240	Date Sampled:	12-01-98
Chain of Custody No:	6415	Date Received:	12-02-98
Sample Matrix:	Soil	Date Extracted:	12-02-98
Preservative:	Cool	Date Analyzed:	12-02-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	65.1	0.2
Diesel Range (C10 - C28)	159	0.1
Total Petroleum Hydrocarbons	224	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 - 13M 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 @ 9'	Date Reported:	12-02-98
Laboratory Number:	E240	Date Sampled:	12-01-98
Chain of Custody:	6415	Date Received:	12-02-98
Sample Matrix:	Soil	Date Analyzed:	12-02-98
Preservative:	Cool	Date Extracted:	12-02-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	144	8.8
Toluene	1,090	8.4
Ethylbenzene	519	7.6
p,m-Xylene	2,450	10.8
o-Xylene	1,310	5.2
Total BTEX	5,510	

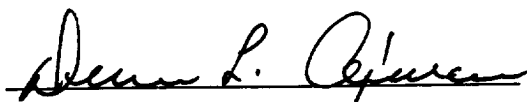
ND - Parameter not detected at the stated detection limit.


Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

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 #155 - 13M Blow Pit.


Analyst


Review

8J697

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 # 155 - 13M
Location: Unit or Qtr/Qtr Sec L Sec 30 T 26N R 5W County Rio ARIZONA
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: RANGE

Pit Location: Pit dimensions: length 30', width 20', depth 18'
(Attach diagram) Reference: wellhead ☒, other ☐
Footage from reference: 155'
Direction from reference: 18 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

BJ697 SEP. PIT

Date Remediation Started: _____

Date Completed: 12/2/98Remediation Method: Excavation ☒
(Check all appropriate sections) Landfarmed ☒Approx. cubic yards 370

Insitu Bioremediation _____

Other _____

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

18' (PIT BOTTOM)

Sample date

12/1/98

Sample time

1140

Sample Results

Soil: Benzene	(ppm)	<u>0.429</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>11.200</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>636</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>159</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

12/2/98

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. Marshall

DATE:

12-28-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJ697</u> C.O.C. NO: <u>6415</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA Cont. 155</u> WELL #: <u>13M</u> PIT: <u>SEP.</u>		DATE STARTED: <u>12/1/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>L SEC: 30 TWP: 26N RNG: 5W PM: NM CNTY: A ST: NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>1560' FSU / 790' FWL</u> CONTRACTOR: <u>P&S</u>		

EXCAVATION APPROX. <u>30</u> FT. x <u>20</u> FT. x <u>18</u> FT. DEEP.	CUBIC YARDAGE: <u>370</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JICA 155</u> FORMATION: <u>DR/MV/CR</u>

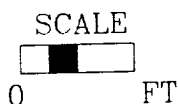
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>155</u> FT. <u>518E</u> FROM WELLHEAD.		
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u>	NEAREST SURFACE WATER: <u>>1000'</u>
NMDCD RANKING SCORE: <u>0</u>	NMDCD TPH CLOSURE STD: <u>5000</u> PPM	

SOIL AND EXCAVATION DESCRIPTION:

MOSTLY DR. YELL. ORANGE TO BROWN SAND TO SILTY SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM PIT BOTTOM CONSISTED OF PALE YELL. BROWN CLAY, PLASTIC, MOIST, VERY STIFF UNABLE TO DISCERN ANY STAINING, STRONG HC ODOR IN ALL OVM SAMPLES EXCEPT NORTH SIDEWALL.

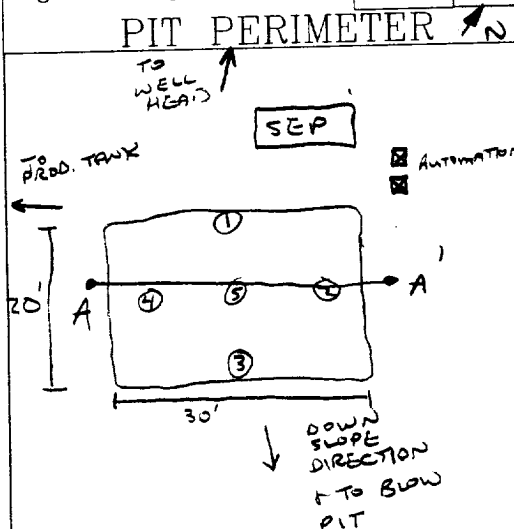
CHECK ONE:	
<input checked="" type="checkbox"/>	PIT ABANDONED
<input type="checkbox"/>	STEEL TANK INSTALLED
<input type="checkbox"/>	FIBERGLASS TANK INSTALLED

CLOSED



FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	ML. FREON	DILUTION	READING	CALC. ppm
1140							

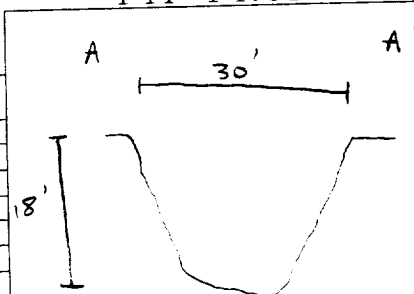


OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 13'	0.0
2 @ 13'	229.3
3 @ 13'	454
4 @ 12'	133.7
5 @ 18'	636

LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME
5 @ 18'	TPH/BTEX	1140
<u>BOTH PASSED</u>		

PIT PROFILE



TRAVEL NOTES:	CALLOUT: _____	ONSITE: _____
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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

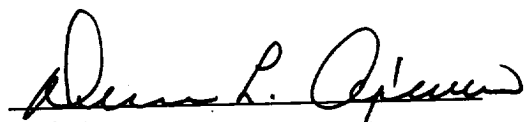
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	5 @ 18'	Date Reported:	12-02-98
Laboratory Number:	E241	Date Sampled:	12-01-98
Chain of Custody No:	6415	Date Received:	12-02-98
Sample Matrix:	Soil	Date Extracted:	12-02-98
Preservative:	Cool	Date Analyzed:	12-02-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

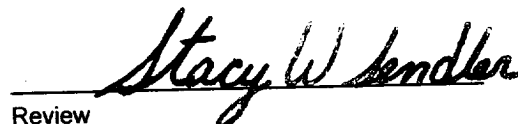
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	126	0.2
Diesel Range (C10 - C28)	32.8	0.1
Total Petroleum Hydrocarbons	159	0.2

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 - 13M 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:	5 @ 18'	Date Reported:	12-02-98
Laboratory Number:	E241	Date Sampled:	12-01-98
Chain of Custody:	6415	Date Received:	12-02-98
Sample Matrix:	Soil	Date Analyzed:	12-02-98
Preservative:	Cool	Date Extracted:	12-02-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	429	8.8
Toluene	1,760	8.4
Ethylbenzene	859	7.6
p,m-Xylene	6,000	10.8
o-Xylene	2,150	5.2
Total BTEX	11,200	

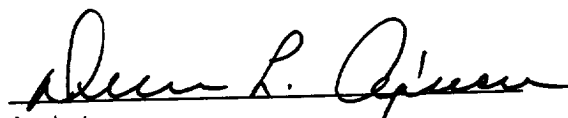
ND - Parameter not detected at the stated detection limit.

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 #155 - 13M Separator Pit.


Analyst


Review

CHAIN OF CUSTODY RECORD

6415

Client / Project Name				Project Location		ANALYSIS / PARAMETERS											
Blasel Amoco				TICAPILUA Contract #155-13M													
Sampler: NTN				Client No. 04034-10		No. of Containers		TPH (8015)		BTEX (1208)		Remarks					
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix													
③ @ 9'	12/1/98	1040	E240	SOIL	1	✓	✓									Blow PT	
③ @ 18'	12/1/98	1140	E241	SOIL	1	✓	✓									SEPARATOR PT	
																BOTH SAMPLES	
																REFUEL - COOL	
Relinquished by: (Signature) <i>[Signature]</i>				Date 12/2/98	Time 0715	Received by: (Signature) <i>[Signature]</i>				Date 12.2.98	Time 0715						
Relinquished by: (Signature)						Received by: (Signature)											
Relinquished by: (Signature)						Received by: (Signature)											

Ref COC's 6412-6415

ENVIROTECH INC.

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

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

15071

**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 155.13M</u>	
Location: Unit or Qtr/Qtr Sec <u>4</u> Sec <u>30</u> T <u>26N</u> R <u>5W</u> County <u>RIO ARIZONA</u>	
Land Type: <u>RANGE</u>	
Date Remediation Started: <u>12.1.98</u> Date Completed: <u>6/8/99</u>	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>370</u>	
Composted <input type="checkbox"/>	
Other <input type="checkbox"/>	
Depth To Groundwater: (pts.) <u>0</u>	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>6.7.99</u> Time: <u>1340</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>90.6</u>
Distance To Surface Water: (pts.) <u>0</u>	TPH (ppm) <u>543</u> Method <u>TPH (8015)</u>
RANKING SCORE (TOTAL POINTS): <u>0</u>	Other <input type="checkbox"/>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>6/8/99</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: _____	

ONSITE: 6.7.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

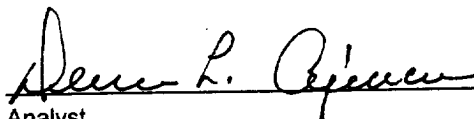
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	06-08-99
Laboratory Number:	F465	Date Sampled:	06-07-99
Chain of Custody No:	7067	Date Received:	06-08-99
Sample Matrix:	Soil	Date Extracted:	06-08-99
Preservative:	Cool	Date Analyzed:	06-08-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

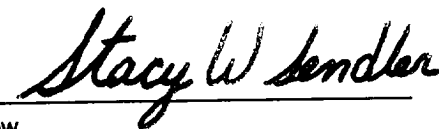
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	152	0.2
Diesel Range (C10 - C28)	391	0.1
Total Petroleum Hydrocarbons	543	0.2

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 - 13M Landfarm. 5 Pt. Composite.


Analyst


Review

