

District III
1000 Rio Pecos Rd
Aztec, NM
State of New Mexico
Energy, Minerals and Natural Resources Department
DEPUTY OIL & GAS INSPECTOR

DEC 17 1998

OIL CONSERVATION DIVISION
2040 S. PACHECO
Santa Fe, New Mexico 87505

Submit 1 copy to
Appropriate District
and 1 copy to
Santa Fe Office

RECEIVED
JUL 6 1999

PIT REMEDIATION AND CLOSURE REPORT

Operator: **Apache Corporation** Telephone: **505-325-0318**

Address: **2855 Southside River Road, Suite A, Farmington, NM 87401**

Facility or Well Name: **Apache # 125 #3**

Location: Unit or Qtr/Qtr Sec **L Sec 26 T 25 N R 4W** County **Rio Arriba**

Pit Type: Separator: _____ Dehydrator _____ Other **Blow Pit**

Land Type: **Jicarilla Tribal**

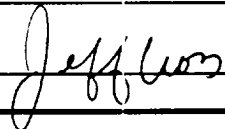
Beginning Pit Dimensions: Length **60'** Width **60'** Depth **1'**
Pit Location: Ending Pit Dimensions: Length **60'** Width **70'** Depth **5'**
(Attach diagram)
Reference: Wellhead **XXX** Other _____
Footage from reference: **200'**
Direction from reference: **325** Degrees _____ East North **XX**
_____ West 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) **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 200 feet (20 points) _____
200 feet to 1000 feet (10 points) _____
Greater than 1000 feet (0 points) **0**

RANKING SCORE (TOTAL POINTS) **0**

Date Remediation Started:		<u>5/29/97</u>	Date Completed:		<u>5/21/98</u>
Remediation Method: (Check all appropriate sections)	Excavation	<u>XXX</u>	Approx. cubic yards	<u>600</u>	
	Landfarmed	<u>XX</u>	In situ Bioremediation		
	Other				
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)		Onsite	<u>XX</u>	Offsite	
General Description of Remedial Action:		<u>Excavate pit to 5', took PID readings.</u>			
		<u>Spread soil on location for remediation. Took soil samples. Hit Bedrock @ 5', sprayed pit</u>			
		<u>with liquid fertilizer. Remediated soil to be put back in pit.</u>			
Groundwater Encountered		No	<u>XX</u>	Yes	Depth <u> </u>
Final Pit:	Sample location	<u>5 point composite taken from pit sidewalls and pit bottom center</u>			
Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths)	Sample depth	<u>5'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>		
	Sample Date	<u>5/30/97</u>	Sample Time	<u>10:40 A.M.</u>	
	Sample results				
	Benzene	(ppm)	<u>ND</u>		
	Total BTEX	(ppm)	<u>ND</u>		
	Field Headspace	(ppm)	<u>0.76</u>		
	TPH		<u>ND</u>		
Groundwater Sample:		Yes	<u> </u>	No	<u>XX</u> (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		<u>June 24, 1998</u>	PRINTED NAME		<u>Jeff Cross</u>
SIGNATURE			AND TITLE		<u>Project Manager</u>

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: <u>M W PETROLEUM</u>		Telephone <u>505-325-0318</u>	
Address: <u>304 N. BEHREND, FARMINGTON, N.M. 84701</u>			
Facility or Well Name: <u>JAT 125 # 3</u>			
Location:	Unit or Qtr/Qtr Sec	<u>L</u> <u>SEC 26</u> <u>T 25N</u> <u>R 4W</u>	County <u>RIO ARRIBA</u>
Pit Type:	Separator: <u> </u>	Dehydrator <u> </u>	Other <u>BLOW PIT</u>
Land Type: <u>JIC. TRIBAL</u>			

Pit Location: (Attach diagram)	Pit Dimensions:	Length <u>60'</u>	Width <u>70'</u>	Depth <u>5'</u>
	Reference:	Wellhead <u>XXX</u>	Other <u> </u>	
	Footage from reference:	<u>200'</u>		
	Direction from reference:	<u>325</u> Degrees	<u> </u> East	North <u>XX</u>
		<u>X</u> West	of	South <u> </u>

Depth To Groundwater: (vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	(20 points)	<u> </u>
	50 feet to 99 feet	(10 points)	<u> </u>
	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)	<u> </u>
	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)	<u> </u>
	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)	<u> </u>
	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)	<u> </u>
	100 feet to 1000 feet	(10 points)	<u> </u>
	Greater than 1000 feet	(0 points)	<u>0</u>
RANKING SCORE (TOTAL POINTS)			<u>0</u>

Date Remediation Started: 5/29/97 Date Completed: 5-21-98

Remediation Method: Excavation XXX Approx. cubic yards 600

(Check all appropriate sections)

Landfarmed XX Insitu Bioremediation

Other

Remediation Location:

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

Onsite XX Offsite

General Description of Remedial Action: Excavate pit to 5', took PID readings. spread soil on

location for remediation. Took soil samples.

HIT BEDROCK @ 5'

SPRAYED PIT WITH LIQUID FERTILIZER.

Remediated soil to be put back in pit

Groundwater Encountered:

No XXX

Yes

Depth

Final Pit:

Sample location

4 POINT COMPOSITE SAMPLE TAKEN 8 TO 10" INTO PIT

Closure Sampling:

(in multiple samples, attach sample results

SIDEWALLS, GRAB SAMPLE TAKEN 10" INTO PIT BOTTOM CENTER.

and diagram of sample locations and depths)

Sample depth

5'

8" to 10" into pit side walls, 10" into pit bottom.

Sample Date

5/30/97

Sample Time

10:40AM

Sample result:

Soil:

Benzene

(ppm)

ND

Water:

Benzene

(ppb)

NA

Total BTEX

(ppm)

ND

Toluene

(ppb)

NA

Field Headspace

(ppm)

0.76

Ethylbenzene

(ppb)

NA

TPH

(ppm)

ND\SIDES
ND\BTM

Total Xylenes

(ppb)

NA

Groundwater Sample:

Yes

No

XXX

(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

6-4-98

PRINTED NAME

JEFF CROSS

SIGNATURE

Jeff Cross

AND TITLE

PROJECT MANAGER

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED:

YES

X

NO

(REASON)

SIGNED:

Ken C. Mamm

DATE:

6-23-98

LOCATION	JAT 125 # 3
PIT COUNT	1

Date of Review

[illegible]

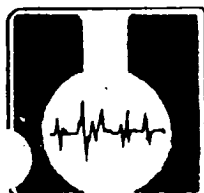
DATE: 5/30/97		Pit 1 @ 5'	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB	ASSAIGAI
P I D	Center	0.1			PIT	TPH	BETEX	WITNESS	DATE
	NW Corner	0.5			NO	SIDE\BTM	SIDE\BTM		
	NE Corner	1.4			1	ND\ND	ND\ND	JEFF C.	6/9/97
	SW Corner	1			2				
	SE Corner	0.8			3				

DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB	
P I D	Center				PIT NO	TPH	BETEX	WITNESS	DATE
	NW Corner								
	NE Corner				1				
	SW Corner				2				
	SE Corner				3				

DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS		PER LAB		
P I D	Center				PIT	TPH	BETEX	WITNESS	DATE
	NW Corner				NO				
	NE Corner				1				
	SW Corner				2				
	SE Corner				3				



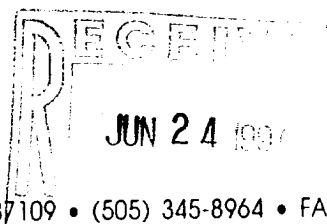
NOTES	4 POINT COMPOSITE SAMPLE TAKEN 8" TO 10" INTO PIT
	SIDEWALL
	1 POINT GRAB SAMPLE TAKEN 10" TO 12" INTO BOTTOM CENTER



**ASSAIGAI
ANALYTICAL
LABORATORIES, INC.**

7300 Jefferson, N.E. • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820



Report Generated:
June 11, 1997 15:13

**CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE**

SENT APACHE CORPORATION
TO: 304 N. BEHREND
FARMINGTON, NM 87401

WORKORDER # : 9706041
WORK ID : JICARILLA PIT CLOSURES
CLIENT CODE : APA01
DATE RECEIVED : 06/04/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9706041-01A
Sample ID: JAT 125 #3 PIT #1 SIDES

Collected: 05/30/97 10:40:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	06/09/97	SBTXME167
Toluene	ND	mg/Kg	0.0010	500	06/09/97	SBTXME167
Ethylbenzene	ND	mg/Kg	0.0010	500	06/09/97	SBTXME167
P-&m-Xylene	ND	mg/Kg	0.0020	500	06/09/97	SBTXME167
O-Xylene	ND	mg/Kg	0.0010	500	06/09/97	SBTXME167

Lab ID: 9706041-01B
Sample ID: JAT 125 #3 PIT #1 SIDES

Collected: 05/30/97 10:40:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015						
Diesel Range OG in Soil	ND	mg/Kg	50	25	06/07/97	SDRO31

Lab ID: 9706041-02A
Sample ID: JAT 125 #3 FIT #1 BOTTOM

Collected: 05/30/97 11:00:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	06/10/97	SBTXME167
Toluene	ND	mg/Kg	0.0010	500	06/10/97	SBTXME167
Ethylbenzene	ND	mg/Kg	0.0010	500	06/10/97	SBTXME167
P-&m-Xylene	ND	mg/Kg	0.0020	500	06/10/97	SBTXME167
O-Xylene	ND	mg/Kg	0.0010	500	06/10/97	SBTXME167



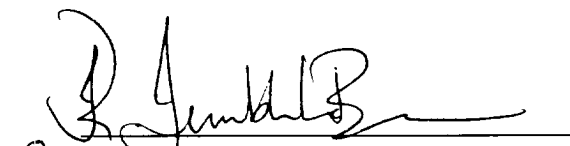
L. D: 9706041-02B

Sample ID: JAT 125 #3 PIT #1 BOTTOM

Collected: 05/30/97 11:00:00

Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	ND	mg/Kg	50	25	06/07/97	SDRO31


for William P. Biava
President

WORKORDER COMMENTS

DATE : 06/11/97
WORKORDER:

DEFINITIONS/DATA QUALIFIERS

The following are definitions, abbreviations, and data qualifiers which may have been utilized in your report:

- ND = Analyte "not detected" in analysis at the sample specific detection limit.
- D_F = Sample "dilution factor"
- NT = Analyte "not tested" per client request.
- B = Analyte was also detected in laboratory method QC blank.
- E = Analyte concentration (result) is an estimated value or exceeds analysis calibration range.
- LIMIT = The minimum amount of the analyte that AAL can detect utilizing the specified analysis.

Please Note: Multiply the "Limit" value (AAL's Detection Limit) by Dilution Factor (D_F) to obtain the sample specific Detection Limit.

REPORT COMMENTS

Chain of Custody Record

7300 JEFFERSON, N.E.
ALBUQUERQUE, NEW MEXICO 87
(505) 345-8964

Lab job no.: 609 Date 25/7/87

Page 1 of 1

Client Apache Corporation Project Manager / Contact Jeff Cross

Address 304 N. Behrend
Telephone No. (505) 774-6643

CITY/STATE/ZIP Farmington, NM 87401

Project Name / Number JICARILLA PIT CLOSURES Samplers: (Signature)

Contract / Purchase Order / Quote

AIL FRACTION NUMBER	Field Sample Number/ Location	Date	Time	Sample Type	Type / Size of Container	Preservation	
						Temp.	Chemical
1A	JAT 125 th 3 Pit # 1 sides	5-30-97	10:10	Soil	402 Glass	4°C	FLC
1B	" " " "		10:40				
2A	JAT 125 th 3 Pit # 1 Bottom	5-30-97	10:50				
2B	" " " "		11:00				
3A							
3B							
4A							
4B							
5A							
5B							
6A							
6B							
7A							
7B							
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36A							
36B							
37A							
37B							
38A							
38B							

Relinquished by:	Received by:	Relinquished by:
Signature <u>John Mulline</u>	Signature <u>John Mulline</u>	Signature <u>John Mulline</u>
Printed <u>John Mulline</u>	Printed <u>John Mulline</u>	Printed <u>John Mulline</u>
Company <u>Apache Corp.</u>	Company _____	Company <u>Apache Corp.</u>
Reason _____	Reason _____	Reason _____
Date <u>6/14/87</u>	Time _____	Time <u>8:10</u>

Method of Shipment: _____	Comments: _____
Shipment No. _____	
Special Instructions: _____	

LABORATORY

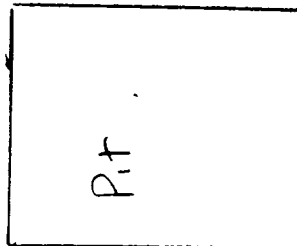
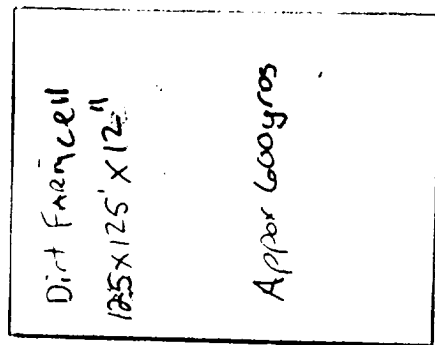
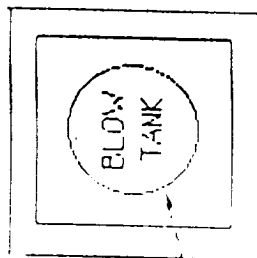
NORTH

DRAINAGE

JICARILLA APACHE 125 WELL NUMBER #3

NW/4 SE/4 SEC 13 T25N-R4W

RIO ARRIERA COUNTY, NM.



Well Head

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>M W PETROLEUM</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 SOUTHSIDE RIVER ROAD / SUITE A / FARMINGTON, N. M. 87401-7947</u>			
Facility or Well Name: <u>JAT 125 # 3</u>			
Location: Unit or Qtr/Qtr Sec <u>L</u> Sec <u>26</u> T <u>25</u> N <u>R 4</u> W County <u>RIO ARRIBA</u>			
Land Type <u>JIC. TRIBAL</u>			
Date Remediation Started: <u>5/29/97</u>		Date Completed: <u>5/21/98</u>	
Remediation Method: Landfarmed		<u>XXX</u>	Approx. cubic yards <u>600</u>
Composted			
Other		<u>Remediated soil To Be put Back in pit</u>	
Depth to Groundwater: (pts) <u>0</u>		Final Closure Sampling Sampling Date: <u>5/21/98</u> Time: <u>12:50PM</u> Sample Results: Field Headspace (ppm) <u>ND</u> TPH (ppm) <u>ND</u> Method <u>M8015</u> Other <u>BTEX \ SW846 , 8020A (ND)</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>6/4/98</u>		PRINTED NAME <u>JEFF CROSS</u>	
SIGNATURE <u>Jeff Cross</u>		TITLE <u>PROJECT MANAGER</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 <u>X</u> NO <u> </u> (REASON) <u>use as Backfill</u>			
SIGNED: <u>Kent Mamm</u>		DATE: <u>6-23-98</u>	

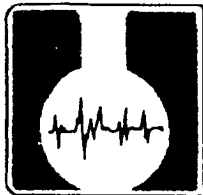
M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 125 # 3

* AMOUNT OF SOIL UNDERGOING REMEDIATION 600 Yds.

CELL No. <u>1</u>	SampDATE 5/21/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>125' X 125' X 12"</u>			
CELL LOCATION (dir. from well head) <u>NORTH</u>			
* DATE BEGAN: <u>5/29/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>5/21/98</u>			
CELL No. <u>2</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH)			
CELL LOCATION (dir. from well head)			
* DATE BEGAN:			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm)			
CELL No. <u>3</u>	SampDATE	TPH	BTEX
DIMENSIONS(LxWxH)			
CELL LOCATION (dir. from well head)			
* DATE BEGAN:			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm)			
REMEDATION RECORD: (Date, Treatment, Tilling)			
6/2/97 TREAT SOIL WITH 43-0-0 FERTILIZER , WATER , PLOW AND TILL SOIL.			
7/15/97 TILL SOIL.			
8/7/97 WATER , PLOW AND TILL SOIL.			
9/9/97 TILL SOIL.			
10/20/97 TREAT SOIL WITH 120LBS PHOSPHORUS , 200LBS LIME , WATER , PLOW AND TILL SOIL.			
5/6/98 PLOW SOIL.			
5/7/98 TILL SOIL.			
5/21/98 TILL SOIL.			

From excavation reports.

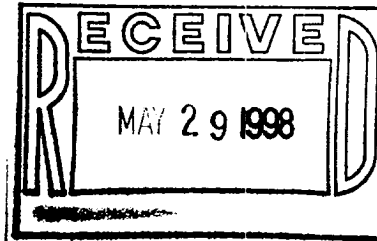


**ASSAIGAI
ANALYTICAL
LABORATORIES, INC.**

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3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

APACHE CORPORATION
attn: **JEFF CROSS**
2855 SOUTHSIDE RIVER RD STE A
FARMINGTON, NM 87401-7947



*** explanation of codes**

B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

Client: **APACHE CORPORATION**
Project: **9805207 JICARILLA**

William P. Biava
William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: **JAT 125 #3 CELL** Sample Matrix: **SOIL** Sample Collected: **05/21/98 12:50:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	Sequence	Run Date
SW846-8020 Volatiles								
9805207-01A	X98285	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG 1998 484-20 05/23/98
	X98285	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG 1998 484-20
	X98285	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG 1998 484-20
	X98285		p/m Xylenes	ND	mg / Kg	50	0.01	XG 1998 484-20
	X98285	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG 1998 484-20
SW846-8015 Modified TPH								
9805207-01B	X98286		Diesel Range Organics	ND	mg / Kg	25	25	XG 1998 488-25 05/23/98

*** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ***



