

District III

1000 Rio Brazos Rd.

Aztec, NM 87410

DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. PACHECO

Santa Fe, New Mexico 87505

Submit 1 copy to

Appropriate District

and 1 copy to

Santa Fe Office

PIT REMEDIATION AND CLOSURE REPORTOperator: Apache Corporation Telephone: 505-325-0318Address: 2855 Southside River Road, Suite A, Farmington, NM 87401Facility or Well Name: APACHE 104Location: Unit or Qtr/Qtr Sec P SE/SE Sec 3 T 25 N R 4W County Rio ArribaPit Type: Separator: _____ Dehydrator _____ Other Tank DrainLand Type: Jicarilla TribalBeginning Pit Dimensions: Length 24' Width 24' Depth 6'Pit Location: Ending Pit Dimensions: Length 24' Width 24' Depth 10'

(Attach diagram)

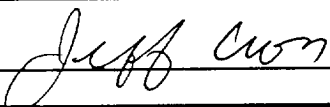
Reference: Wellhead XXX Other _____Footage from reference: 155'Direction from reference: 308 Degrees _____ East North X
_____ West South _____**Depth To Groundwater:**(vertical distance from
contaminants to seasonal
high water elevation of
groundwater)Less than 50 feet (20 points) _____
50 feet to 99 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) 0RANKING SCORE (TOTAL POINTS) 0

Date Remediation Started:	<u>11/28/95</u>	Date Completed:	<u>11/28/95</u>
Remediation Method: (Check all appropriate sections)	Excavation	<u>XXX</u>	Approx. cubic yards <u>200</u>
	Landfarmed	<u>XX</u>	Insitu 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 10', took PID readings. Backfill pit with clean soil. Remediated soil to be spread on location. Spread soil on location for remediation.</u>			
<u>Took soil samples</u>			

Groundwater Encountered:	No <u>XX</u>	Yes _____	Depth _____

Final Pit:	Sample location	<u>5 point composite sample 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>10'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>
	Sample Date	<u>12/14/95</u>	Sample Time <u>2:40 PM</u>
	Sample results		
	Benzene	(ppm)	<u>ND</u>
	Total BTEX	(ppm)	<u>0.252</u>
	Field Headspace	(ppm)	<u>21.74</u>
	TPH		<u>1800</u>
Groundwater Sample:	Yes _____	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>December 1, 1998</u>	PRINTED NAME <u>Jeff Cross</u>
SIGNATURE <u></u>	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>APACHE CORPORATION</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 Southside River Road, Suite A, Farmington, NM 87401</u>			
Facility or Well Name: <u>APACHE # 104</u>			
Location:	Unit or Qtr/Qtr	Sec	<u>SE\SE SEC 3 T 24 N R 4 W</u> County <u>Rio Arriba</u>
Pit Type:	Separator: <u> </u>	Dehydrator <u> </u>	Other <u>TANK DRAIN</u>
Land Type: <u>Jicarilla Tribal</u>			

Pit Location: (Attach diagram)	Pit Dimensions:	Length <u>24'</u>	Width <u>24'</u>	Depth <u>10'</u>
	Reference:	Wellhead <u>XX</u>	Other <u> </u>	
	Footage from reference:	<u>155'</u>		
	Direction from reference:	<u>308</u> Degrees	<u> </u> East	North <u>X</u>
		<u>XX</u> West	South <u> </u>	

Depth To Groundwater: (vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	<u> </u> <u> </u> <u>0</u>
Distance to an Ephemeral Stream: (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	<u> </u> <u>0</u>
Distance to Nearest Lake, Playa, or Watering Pond: (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	<u> </u> <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 No	(20 points) (0 points)	<u> </u> <u>0</u>
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	<u> </u> <u> </u> <u>0</u>
RANKING SCORE (TOTAL POINTS)			<u>0</u>

Date Remediation Started:		<u>11/28/95</u>		Date Completed:		<u>11/28/95</u>	
Remediation Method: (Check all appropriate sections)		Excavation <u>XXX</u>		Approx. cubic yards		<u>200</u>	
		Landfarmed <u>XX</u>		Insitu 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 10', TOOK PID READINGS.</u> <u>BACK FILL PIT WITH CLEAN SOIL. REMEDIATED SOIL TO BE SPREAD ON LOCATION.</u> <u>SPREAD SOIL ON LOCATION FOR REMEDIATION. TOOK SOIL SAMPLES.</u>							
Groundwater Encountered:		No <u>X</u>		Yes _____		Depth _____	
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>10'</u>					
		Sample Date <u>12/14/95</u>		Sample Time <u>2:40pm</u>			
		Sample results					
Soil:	Benzene	(ppm)	<u>ND</u>	Water:	Benzene	(ppb)	<u>NA</u>
	Total BTEX	(ppm)	<u>0.252</u>		Toluene	(ppb)	<u>NA</u>
	Field Headspace	(ppm)	<u>21.74</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>1800</u>		Total Xylenes	(ppb)	<u>NA</u>
Groundwater Sample:		Yes _____		No <u>X</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>9/22/98</u>		PRINTED NAME <u>JEFF CROSS</u>					
SIGNATURE <u><i>Jeff Cross</i></u>		AND TITLE <u>Project Manager</u>					
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.							
APPROVED: YES <u>X</u>		NO _____		(REASON) _____			
SIGNED: <u><i>Ker C Mamm</i></u>		DATE: <u>11-13-98</u>					

APACHE CORPORATION FARMINGTON DISTRICT
PIT EXCAVATION AND CLOSURE REPORT

JICARILLA APACHE TRIBAL EPO
REVIEW AND APPROVAL

LOCATION: APACHE 104

PIT COUNT: 1

EPO REPRESENTATIVE JCM
DATE OF REVIEW: 12-27-95

				EXCAVATION				
DIMENSIONS		START		FINISH				
	W	L	D		W	L	D	CU.YDS.
PIT 1	24'	24'	6'	PIT 1	24'	24'	10'	85.0
PIT 2				PIT 2				
PIT 3				PIT 3				
DATE: 11/28/95		PIT1@10'	PIT2@_'	PIT3@_'	DATE:	PIT1@_'	PIT2@_'	PIT3@_'
P. I. D.	CENTER	122.0			P. I. D.	CENTER		
	NW CORNER	103.0				NW CORNER		
	NE CORNER	117.0				NE CORNER		
	SW CORNER	83.5				SW CORNER		
	SE CORNER	121.0				SE CORNER		

NOTES:

11/28/95 Staining to 8'. Cleared @ 10'.

SOIL SAMPLING									
DATE: 11/28/95		PIT1@10'	PIT2@_ ,	PIT3@_ ,	ANALYSIS RESULTS		PER LAB:	ASSAIGAI	
	CENTER	122.0			PIT	TPH	BETEX	WITNESS	DATE
P.	NW CORNER	103.0			NO.				
I.	NE CORNER	117.0			1	ND	ND	IF&S	11/28/95
D.	SW CORNER	83.5			2				
	SE CORNER	121.0			3				

RE-SAMPLE OR CELL(S) SAMPLE

DATE: 12/14/95		PIT1@10'	PIT2@	PIT3@	ANALYSIS RESULTS			PER LAB:	ASSAIGAI
P. I. D.	CENTER	17.2			PIT	TPH	BETEX	WITNESS	DATE
	NW CORNER	8.7			NO.				
	NE CORNER	15.4			1	1800	.252	JDT	12/14/95
	SW CORNER	8.4			2				
	SE CORNER	5.9			3				

RE-SAMPLE OR CELL(S) SAMPLE

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				



SAMPLE DATE 12/14/95

[illegible]

Lab ID: 9512195-05A
Sample ID: AP #107

Collected: 12/14/95 14:25:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
Toluene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
Ethylbenzene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
P-&m-Xylene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
O-Xylene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097

Lab ID: 9512195-05B
Sample ID: AP #107

Collected: 12/14/95 14:25:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCS DIESEL/CAL DHS 8015M						
Diesel	2300	mg/Kg	5.0	250	01/05/96	SLFTD57
HCS DSL XT/CAL DHS 8015M	12/21/95	N/A				

Lab ID: 9512195-06A
Sample ID: AP #104

Collected: 12/14/95 14:40:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
Toluene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097
Ethylbenzene	0.072	mg/Kg	0.0010	50	12/27/95	SBTXME097
P-&m-Xylene	0.18	mg/Kg	0.0010	50	12/27/95	SBTXME097
O-Xylene	ND	mg/Kg	0.0010	50	12/27/95	SBTXME097

Lab ID: 9512195-06B
Sample ID: AP #104

Collected: 12/14/95 14:40:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
HCS DIESEL/CAL DHS 8015M						
Diesel	1800	mg/Kg	5.0	100	01/05/96	SLFTD57
HCS DSL XT/CAL DHS 8015M	12/21/95	N/A				

Lab ID: 9512195-07A
Sample ID: AP #154

Collected: 12/14/95 15:05:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	100	12/27/95	SBTXME097
Toluene	ND	mg/Kg	0.0010	100	12/27/95	SBTXME097

NORTH

GENERAL DRAINAGE

APACHE
APACHE NUMBER 104 Lessee JAT 127
SE/4 SE/4 (P)
SECTION 3, TOWNSHIP 24N RANGE 4W
RIO ARRIBA COUNTY, NM
Revised 6/1/97 mo

ENG METER RUN LIVE CRIP



CELL
120' x 45' x 12"

PIT 308' deep
156' from
RECLAIMED

4000 BBL
OIL

4000 BBL
OIL

S SEPARATOR

PUMPING UNIT

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>APACHE CORPORATION</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>APACHE # 104</u>			
Location: Unit or Qtr/Qtr Sec		SE\SE SEC 3 T 24 N R 4 W County <u>RIO ARRIBA</u>	
Land Type		<u>JIC. TRIBAL</u>	
Date Remediation Started: <u>11/28/95</u>		Date Completed: <u>6/11/98</u>	
Remediation Method: Landfarmed		<u>XXX</u> Approx. cubic yards <u>200</u>	
Composted		<u> </u>	
Other		<u>REMEDIATED SOIL TO BE SPREAD ON LOCATION</u>	
Depth to Groundwater: (pts) <u>0</u>		Final Closure Sampling Sampling Date: <u>6/11/98</u> Time: <u>2:15PM</u> Sample Results: Field Headspace (ppm) <u>0</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>9/22/98</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> </u>			
SIGNED: <u>Ken C. M... [Signature]</u>		DATE: <u>11-13-98</u>	

APACHE CORPORATION/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE APACHE # 104

* AMOUNT OF SOIL UNDERGOING REMEDIATION 200 Yds.

CELL No. <u>1</u>	SampDATE 6/11/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>120' X 45' X 12"</u>			
CELL LOCATION (dir. from well head) <u>NORTH</u>			
* DATE BEGAN: <u>11/28/95</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/11/98</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) _____			
REMEDIATION RECORD: (Date, Treatment, Tilling) 11/29/95 TREAT SOIL WITH 28-4-4 FERTILIZER, WATER, PLOW AND TILL SOIL. 5/5/97 WATER, PLOW AND TILL SOIL. 8/21/97 PLOW AND TILL SOIL. 6/23/97 PLOW AND TILL SOIL. 8/26/97 PLOW AND TILL SOIL 7/7/97 PLOW AND TILL SOIL 4/28/98 WATER , PLOW AND TILL SOIL. 7/19/97 WATER, PLOW AND TILL SOIL. 5/4/98 PLOW AND TILL SOIL. 7/31/97 PLOW AND TILL SOIL. 5/11/98 PLOW AND TILL SOIL. 8/4/97 PLOW AND TILL SOIL . 5/21/98 WATER, PLOW AND TILL SOIL. 8/13/97 PLOW AND TILL SOIL. 6/8/98 PLOW AND TILL SOIL.			

From excavation reports.

APACHE # 104

6/11/98

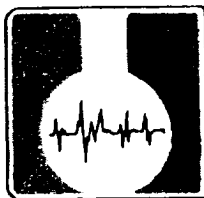
120' X 45' X 12"

= SAMPLE AREA



ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

10 POINT COMPOSITE SAMPLE



**ASSAIGAI
ANALYTICAL
LABORATORIES, INC.**

JUN 26 1998

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

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: **9806165 JICARILLA**

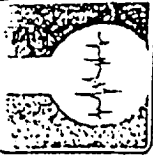
For [Signature]
William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: **AP 104 CELL** Sample Matrix: **SOIL** Sample Collected: **06/11/98 14:15:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	* Sequence	Run Date
SW846-8020 Volatiles								
9806165-01A	X98325	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.536-5 06/15/98
	X98325	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.536-5
	X98325	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.536-5
	X98325		p/m Xylenes	ND	mg / Kg	50	0.01	XG.1998.536-5
	X98325	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.536-5
SW846-8015 Modified TPH								
9806165-01B	X98321		Diesel Range Organics	ND	mg / Kg	25	25	XG.1998.562-1 06/15/98

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





ASSAIGAI
ANALYTICAL
LABORATORIES, INC.

Chain of Custody Record

Lab job no.

61165 Date 6/12/99

Page 1 of 1

Client Apache Corporation

Project Manager / Contact Jeff Cross

Address 2855 Southside River RD, Ste. A Telephone No. (505) 774-6643

City / State / Zip Parliament, NM 87401-7947 Fax No. (505) 774-6624

Project Name / Number _____
Samplers: (Signature) Jeff Cross

Contract / Purchase Order / Quote _____

ALBUQUERQUE, NEW MEXICO 87103
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

AAL FRACTION NUMBER	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation		No. of Containers	Analysis Required	Remarks
						Temp.	Chemical			
1A	Ap 104 cell	6-11-98	2:15P	SOIL	4 oz glass	40C	Ice	1	X	
1B	1	1	1		4 oz glass	1	1	1	X	
2A										
2B										
3A										
3B										
4A										
4B										
5A										
5B										
6A										
6B										
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50B										

JUN 26 1998

Relinquished by:		Received by:		Relinquished by:		Received by:	
Signature	Date	Signature	Date	Signature	Date	Signature	Date
<u>Jeff Cross</u>	<u>6/12/99</u>	<u>Jeff Cross</u>	<u>6/12/99</u>	<u>Jeff Cross</u>	<u>6/12/99</u>	<u>Jeff Cross</u>	<u>6/12/99</u>
Printed		Printed		Printed		Printed	
Company		Company		Company		Company	
Reason		Reason		Reason		Reason	

Method of Shipment:		After analysis, samples are to be:	
Shipment No.	Special Instructions:	☐ Disposed of (additional)	☐ Stored (30 days max)
		☐ Stored over 30 days (ad. fee)	☐ Returned to customer

LABORATORY