

District III

1000 Main St. Santa Fe, NM 87501

AZ 100 87410

DEPUTY OIL & GAS INSPECTOR

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

JAN 27 1998

PIT REMEDIATION AND CLOSURE REPORT

RECEIVED
AUG 24 1998Operator: Apache Corporation \ MW Petroleum Telephone: 505-325-9378OIL CON. DIV.
DIST. 3Address: 2855 Southside River Road, Suite A, Farmington, NM 87401Facility or Well Name: Jic Apache Tribal 396 #2 Pit #1Location: Unit or Qtr/Qtr Sec P Sec 8 T 23 N R 3W County Rio ArribaPit Type: Separator: _____ Dehydrator _____ Other Blow PitLand Type: Jicarilla Tribal

Beginning Pit Dimensions: Length 30' Width 30' Depth 4'

Pit Location: Ending Pit Dimensions: Length 40' Width 45' Depth 18'
(Attach diagram)

Reference: Wellhead XX Other _____ Separator _____

Footage from reference: 100'

Direction from reference: 280 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) 0

RANKING SCORE (TOTAL POINTS) 0

Date Remediation Started:		<u>5/6/97</u>		Date Completed:		<u>5/12/97</u>	
Remediation Method: (Check all appropriate sections)		Excavation	<u>XXX</u>	Approx. cubic yards	<u>700</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 14' below pit bottom, 12' off pit sides.</u>					
		<u>Lay soil out on location in six dirt farm cells.</u>					
Groundwater Encountered:		No	<u>XX</u>	Yes			Depth <u> </u>
Final Pit:		<u>Sample location 4 point composite sample taken 8 to 10 " into pit sidewalls,</u>					
Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths)		<u>grab sample taken 10" into pit bottom center.</u>					
		Sample depth	<u>18'</u>	<u>8 to 10" into pit sidewalls 10" into pit bottom</u>			
		Sample Date	<u>5/12/97</u>	Sample Time	<u>12:30 PM</u>		
		Sample results					
		Benzene	(ppm)	<u>ND</u>			
		Total BTEX	(ppm)	<u>ND</u>			
		Field Headspace	(ppm)	<u>16.14</u>			
		TPH		<u>302\Sides</u>			
				<u>ND\BTM</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>August 10,1998</u>		PRINTED NAME		<u>Jeff Cross</u>	
SIGNATURE		<u>Jeff Cross</u>		AND TITLE		<u>Project Manager</u>	

District III
1000 Rio Brazos Rd
Aztec, NM 87410

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 REPORT

Operator: Apache Corporation \ MW Petroleum		Telephone: 505-325-0318	
Address: 2855 Southside River Road, Suite A, Farmington, NM 87401			
Facility or Well Name:		Jic Apache Tribal 396 #2 Pit #2	
Location: Unit or Qtr/Qtr Sec	P	Sec 8	T 23 N R 3W County Rio Arriba
Pit Type: Separator:	XXX	Dehydrator	Other
Land Type: Jicarilla Tribal			
Beginning Pit Dimensions: Length 10' Width 10' Depth 3'			
Pit Location: Ending Pit Dimensions:	Length 12'	Width 12'	Depth 7'
(Attach diagram)	Reference: Wellhead XX	Other	Separator
Footage from reference: 100'			
Direction from reference: 350 Degrees XX East North			
X West South			
Depth To Groundwater:		Less than 50 feet (20 points)	
(vertical distance from		50 feet to 99 feet (10 points)	
contaminants to seasonal		Greater than 100 feet (0 points) 0	
high water elevation of			
groundwater)			
Wellhead Protection Area:		Yes (20 points)	
(Less than 200 feet from a private		No (0 points) 0	
domestic water source, or; less than			
1000 feet from all other water sources)			
Distance To Surface Water:		Less than 200 feet (20 points)	
(Horizontal distance to perennial		200 feet to 1000 feet (10 points)	
lakes, ponds, rivers, streams, creeks,		Greater than 1000 feet (0 points) 0	
irrigation canals and ditches)			
		RANKING SCORE (TOTAL POINTS) 0	

Date Remediation Started:

5/9/97

Date Completed:

5/12/97

Remediation Method:

(Check all appropriate sections)

Excavation

XXX

Approx. cubic yards

21

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 4' below pit bottom, 2' off pit sides.

Lay soil out on location in six dirt farm cells.

Groundwater Encountered:

No

XX

Yes

Depth

Final Pit:

Sample location

4 point composite sample taken 8 to 10 " into pit sidewalls,

Closure Sampling:

(in multiple samples, attach sample results and diagram of sample locations and depths)

grab sample taken 10" into pit bottom center.

Sample depth 7'

8 to 10" into pit sidewalls 10" into pit bottom

Sample Date

5/12/97

Sample Time

1:10PM

Sample results

Benzene

(ppm)

ND

Total BTEX

(ppm)

ND

Field Headspace

(ppm)

77.04

TPH

4000\Sides

1600\BTM

Groundwater Sample:

Yes

No

XX

(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

August 10,1998

PRINTED NAME

Jeff Cross

SIGNATURE

AND TITLE

Project Manager

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>JIC. TRIBAL 396# 2 PIT #1</u>			
Location:	Unit or Qtr/Qtr	Sec <u>P</u>	SEC <u>8</u> T <u>23N</u> R <u>3W</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>40'</u>	Width <u>45'</u>	Depth <u>18'</u>
	Reference:	Wellhead <u>XXX</u>	Other <u> </u>	
	Footage from reference:	<u>100'</u>		
	Direction from reference:	<u>280</u> Degrees	<u> </u> East	North <u>X</u>
		<u>XX</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)		

Date Remediation Started: 5/6/97 Date Completed: 5/12/97

Remediation Method: Excavation XXX Approx. cubic yards 700
 (Check all appropriate sections) Landfarmed XXX Insitu Bioremediation _____
 Other _____

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

General Description of Remedial Action: Excavate pit to 14' below pit bottom, 12' off pit sides.
Lay soil out on location in six dirt farm cells.

Groundwater Encountered: No XXX Yes _____ Depth _____

Final Pit: Sample location 4 POINT COMPOSITE SAMPLE TAKEN 10" INTO PIT SIDEWALL
 Closure Sampling: GRAB SAMPLE TAKEN 10" INTO PIT BOTTOM CENTER.
 (in multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 18' 8" to 10" into pit side walls, 10" into pit bottom.

Sample Date 5/12/97 Sample Time 12:30PM
 Sample results

Soil:	Benzene	(ppm)	<u>ND</u>	Water:	Benzene	(ppb)	<u>NA</u>
	Total BTEX	(ppm)	<u>ND</u>		Toluene	(ppb)	<u>NA</u>
	Field Headspace	(ppm)	<u>16.14</u>		Ethylbenzene	(ppb)	<u>NA</u>
	TPH	(ppm)	<u>320\SIDE</u>		Total Xylenes	(ppb)	<u>NA</u>
			<u>ND\BTM</u>				

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 7/9/97 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: Kevin C. Mamm DATE: 7-30-97

**Submit 1 copy to
Natural Resource Dept.
and Oil & Gas Administration**

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>JIC. TRIBAL 396# 2 PIT #2</u>			
Location:	Unit or Qtr/Qtr	Sec	County
	<u>P</u>	<u>SEC 8</u>	<u>T 23N R 3W</u>
Pit Type: Separator: <u>XXX</u> Dehydrator <u> </u> Other <u> </u>			
Land Type: <u>JIC. TRIBAL</u>			
Pit Location: Pit Dimensions: Length <u>12'</u> Width <u>12'</u> Depth <u>7'</u>			
(Attach diagram)			
Reference: Wellhead <u>XXX</u> Other <u> </u>			
Footage from reference: <u>100'</u>			
Direction from reference: <u>350</u> Degrees <u> </u> East North <u>XX</u>			
<u>X</u> West of South <u> </u>			
Depth To Groundwater:		Less than 50 feet	(20 points) <u> </u>
(vertical distance from		50 feet to 99 feet	(10 points) <u> </u>
contaminants to seasonal		Greater than 100 feet	(0 points) <u>0</u>
high water elevation of			
groundwater)			
Distance to an Ephemeral Stream:		Less than 100 feet	(10 points) <u> </u>
(Downgradient dry wash greater than		Greater than 100 feet	(0 points) <u>0</u>
ten feet in width			
Distance to Nearest Lake, Playa, or Watering Pond:		Less than 100 feet	(10 points) <u> </u>
(Downgradient lakes, playas and		Greater than 100 feet	(0 points) <u>0</u>
livestock or wildlife watering ponds)			
Wellhead Protection Area:		Yes	(20 points) <u> </u>
(Less than 200 feet from a private		No	(0 points) <u>0</u>
domestic water source, or less than			
1000 feet from all other water sources)			
Distance To Surface Water:		Less than 100 feet	(20 points) <u> </u>
(Horizontal distance to perennial		100 feet to 1000 feet	(10 points) <u> </u>
lakes, ponds, rivers, streams, creeks,		Greater than 1000 feet	(0 points) <u>0</u>
irrigation canals and ditches)			
		RANKING SCORE (TOTAL POINTS)	<u>0</u>

Date Remediation Started: <u>5/9/97</u>		Date Completed: <u>5/12/97</u>	
Remediation Method: (Check all appropriate sections)	Excavation	<u>XXX</u>	Approx. cubic yards <u>21</u>
	Landfarmed	<u>XXX</u>	Insitu Bioremediation _____
	Other	_____	
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)		Onsite <u>XXX</u>	Offsite _____
General Description of Remedial Action: <u>Excavate pit to 4' below pit bottom, 2' off pit sides.</u>			
<u>Lay soil out on location in six dirt farm cells.</u>			
Groundwater Encountered:		No <u>XXX</u>	Yes _____ Depth _____
Final Pit:	Sample location <u>4 POINT COMPOSITE SAMPLE TAKEN 10" INTO PIT SIDEWALL</u>		
Closure Sampling: (in multiple samples, attach sample results and diagram of sample locations and depths)	<u>GRAB SAMPLE TAKEN 10" INTO PIT BOTTOM CENTER.</u>		
	Sample depth	<u>7' 8" to 10" into pit side walls, 10" into pit bottom.</u>	
	Sample Date	<u>5/12/97</u>	Sample Time <u>1:10PM</u>
	Sample results		
Soil:	Benzene (ppm)	<u>ND</u>	Water: Benzene (ppb) <u>NA</u>
	Total BTEX (ppm)	<u>ND</u>	Toluene (ppb) <u>NA</u>
	Field Headspace (ppm)	<u>77.04</u>	Ethylbenzene (ppb) <u>NA</u>
	TPH (ppm)	<u>4000\SIDE 1600\BTM</u>	Total Xylenes (ppb) <u>NA</u>
Groundwater Sample:		Yes _____	No <u>XXX</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>7/9/97</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>Keith C. Marshall</i></u>		DATE: <u>7-30-97</u>

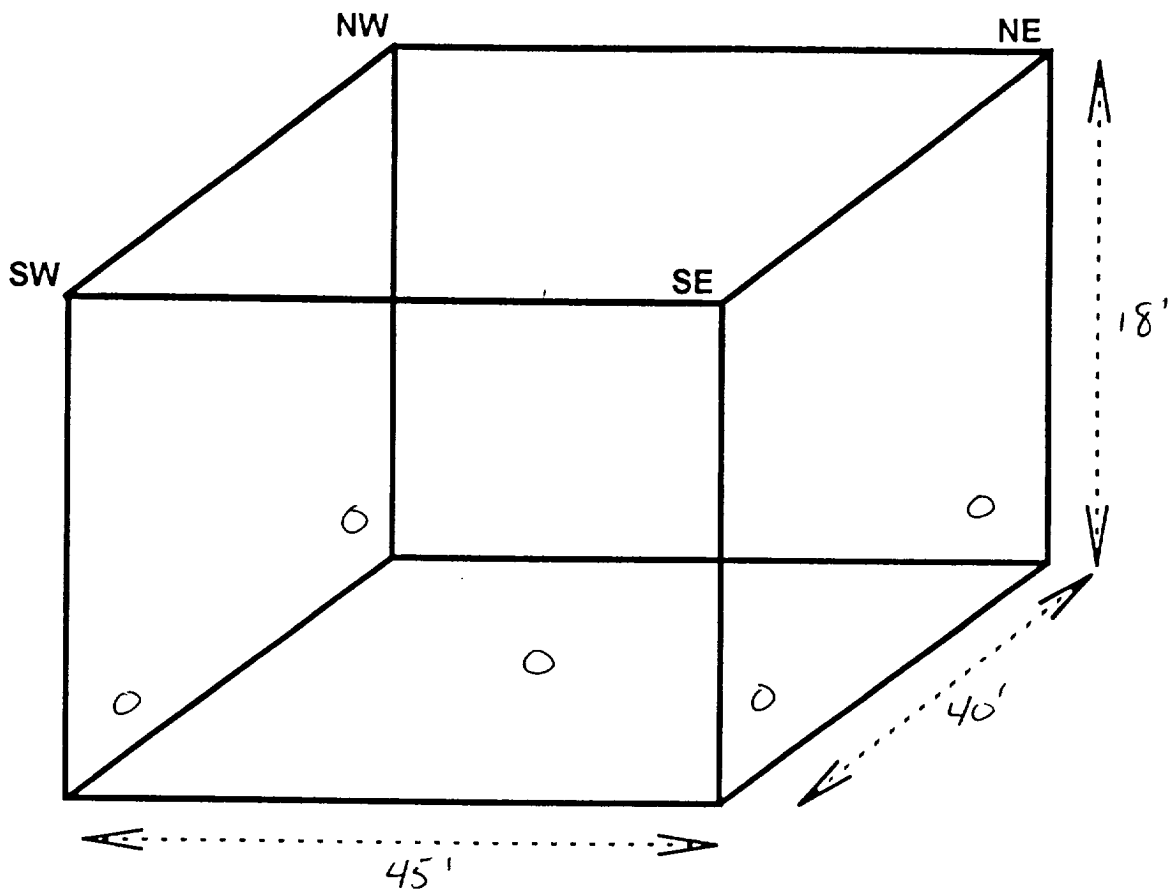
M W PETROLEUM/FARMINGTON DISTRICT PIT EXCAVATION AND CLOSURE REPORT

LOCATION JIC TRIBAL 396#2

PIT COUNT 2

Jicarilla Apache Tribal EPO/OCD/BLM
Review and Approval
OCD-BLM
EPO Representative
Date of Review

DIMENSIONS		Excavation						
		START: PIT #1 5/6/97 PIT #2 5/9/97			FINISH: PIT #1 5/10/97 PIT #2 5/10/97			
	W	L	D		W	L	D	CU YDS
Pit 1	30'	30'	4'	Pit 1	40'	45'	18'	700
Pit 2	10'	10'	3'	Pit 2	12'	12'	7'	21
Pit 3				Pit 3				
DATE:		Pit 1 @ 4'	Pit 1 @ 7'	Pit 2 @ 6'	Date:		Pit 1 @ 18'	Pit 2 @ 7'
P I D	Center	2500+	880	256	P I D	Center	55.3	79.4
	NW Corner	2500+	980	200		NW Corner	16.2	87.5
	NE Corner	2500+	650	220		NE Corner	86.4	98.2
	SW Corner	2500+	800	300		SW Corner	11.5	90.1
	SE Corner	2500+	760	210		SE Corner	84.7	93
NOTES:								
5/6/97 START EXCAVATING PIT #1, HEAVY STAINING AND ODOR @ 4' BELOW PIT BOTTOM. HIGH PID READING								
5/7/97 CONTINUE EXCAVATING. @10' HEAVY STAINING, @16' LIGHT STAINING, @ 18' BOTTOM CLEANED UP.								
OBTAINED PID READINGS@18'								
5/8/97 PIT#1 CHASE HEAVY STAINS IN S.E./S.W.CORNERS FROM BOTTOM TO SURFACE.								
BENCH DOWN TO 9' ON NORTH AND WEST WALLS AND CHASED OUT STAINING.								
5/9/97 START EXCAVATING PIT #2. EXCAVATE DOWN TO 6' PID READINGS A LITTLE HIGH. EXCAVATE DOWN TO 7' TAKE PID READINGS(GOOD)								
5/10/97 EXCAVATE STAINING OFF SIDE WALLS. TAKE PID READINGS - GOOD.								
ALL SOIL FROM PITS #1 AND #2 WERE LAID OUT ON LOCATION FOR LAND FARMING REMEDIATION								
5/12/97 SOIL SAMPLES TAKEN FROM BOTH PITS AND SENT TO ASSAIGAI LABS.								
DATE: 5/12/97 5/12/97 SOIL SAMPLING								
		Pit 1 @ 18'	Pit 2 @ 7'	Pit 3 @	ANALYSIS RESULTS		PER LAB	ASSAIGAI
P I D	Center	20.5	65.3		PIT	TPH	BETEX	WITNESS
	NW Corner	5	68		NO	SIDE/BTM	SIDE/BTM	DATE
	NE Corner	20.4	83.2		1	320/ND	ND	JEFF C.
	SW Corner	10.5	84.7	*	2	4000/1600	ND	JEFF C.
	SE Corner	24.3	84		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
	NW Corner				NO	SIDE/BTM	SIDE/BTM	DATE
	NE Corner				1			
	SW Corner				2			
	SE Corner				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
	NW Corner				NO	SIDE/BTM	SIDE/BTM	DATE
	NE Corner				1			
	SW Corner				2			
	SE Corner				3			

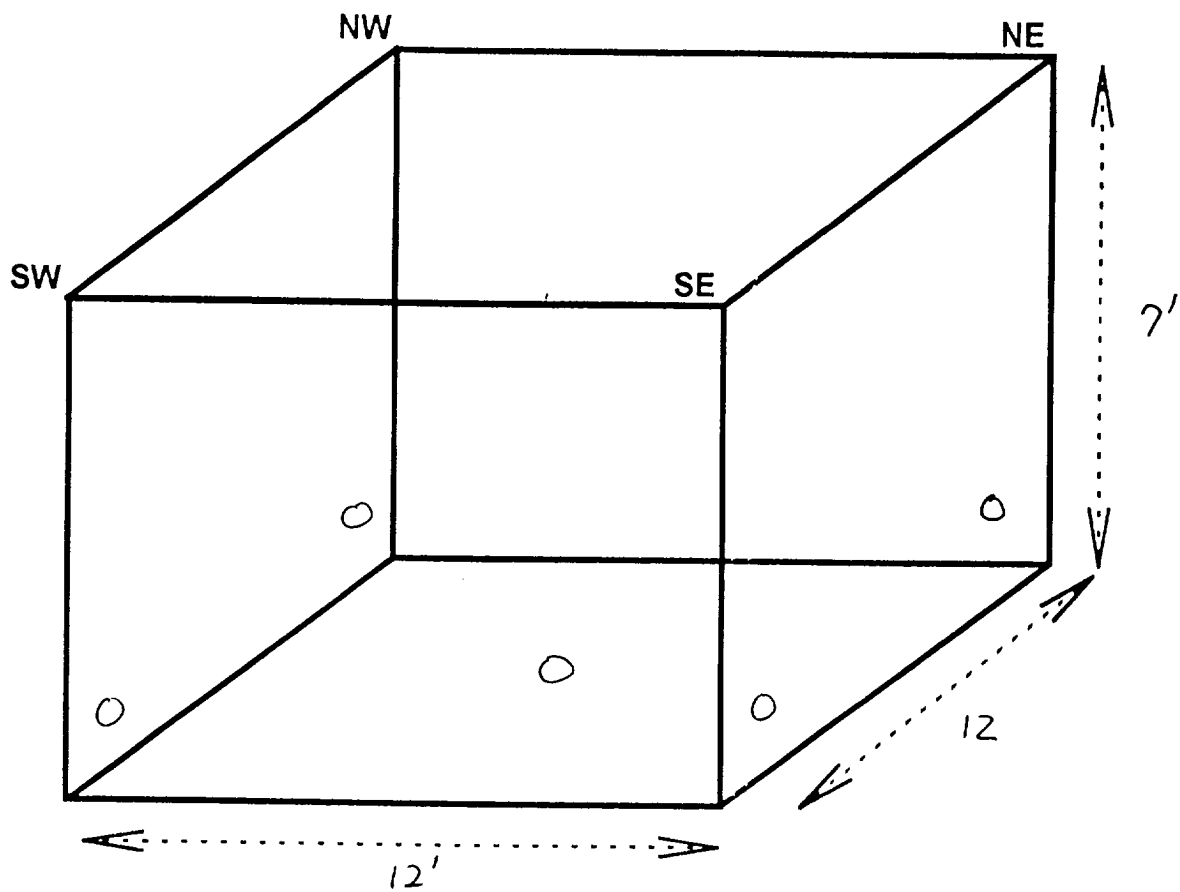


○ = SAMPLE AREA

WELL NAME SAT 346^F 2 (Blow Pit) Pit #1

SAMPLE DATE 5-12-97

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



○ = SAMPLE AREA

WELL NAME SAT 396 #2 Pit #2

SAMPLE DATE 5-12-97

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

MAY 27 1997

Report Generated:
May 21, 1997 14:45

**CERTIFICATE OF ANALYSIS
RESULTS BY SAMPLE**

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

WORKORDER # : 9705143
WORK ID : JICARILLA PIT CLOSURES
CLIENT CODE : APA01
DATE RECEIVED : 05/14/97

ATTN: JEFF CROSS

Page: 1

Lab ID: 9705143-01A *Pit #1*
Sample ID: JAT 396 #2 BLOWPIT SIDES

Collected: 05/12/97 12:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
Toluene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
Ethylbenzene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/15/97	SBTXME162
O-Xylene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162

Lab ID: 9705143-01B *Pit #1*
Sample ID: JAT 396 #2 BLOWPIT SIDES

Collected: 05/12/97 12:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015						
Diesel Range OG in Soil	320	mg/Kg	50	1.0	05/16/97	SDRO26

Lab ID: 9705143-02A *Pit #1*
Sample ID: JAT 396 #2 BLOWPIT BOTTOM

Collected: 05/12/97 12:45:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
Toluene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
Ethylbenzene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162
P-&m-Xylene	ND	mg/Kg	0.0020	500	05/15/97	SBTXME162
O-Xylene	ND	mg/Kg	0.0010	500	05/15/97	SBTXME162



RECEIVED
MAY 27 1997
Page: 2

Lab ID: 9705143-02B
Sample ID: JAT 396 #2 BLOWPIT BOTTOM

Collected: 05/12/97 12:45:00
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	1.0	05/16/97	SDRO26

Lab ID: 9705143-03A
Sample ID: JAT 396 #2 PIT 2 SIDES

Collected: 05/12/97 13:10:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
Toluene	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
Ethylbenzene	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162
P-&m-Xylene	ND	mg/Kg	0.0020	5000	05/16/97	SBTXME162
O-Xylene	ND	mg/Kg	0.0010	5000	05/16/97	SBTXME162

Lab ID: 9705143-03B
Sample ID: JAT 396 #2 PIT 2 SIDES

Collected: 05/12/97 13:10:00
Matrix: SOIL

TI / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	4000	mg/Kg	50	5.0	05/16/97	SDRO26

Lab ID: 9705143-04A
Sample ID: JAT 396 #2 PIT 2 BOTTOM

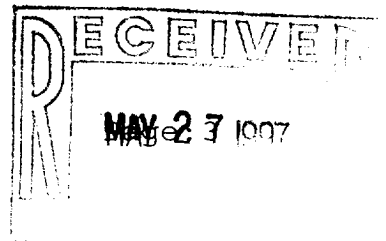
Collected: 05/12/97 13:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
BTEX/SW846 8020A						
Benzene	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162
Toluene	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162
Ethylbenzene	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162
P-&m-Xylene	ND	mg/Kg	0.0020	1250	05/16/97	SBTXME162
O-Xylene	ND	mg/Kg	0.0010	1250	05/16/97	SBTXME162

Lab ID: 9705143-04B
Sample ID: JAT 396 #2 PIT 2 BOTTOM

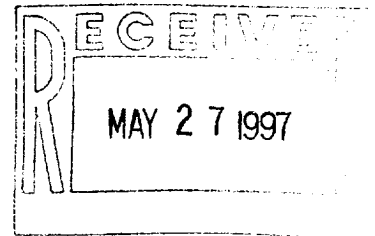
Collected: 05/12/97 13:30:00
Matrix: SOIL

TEST / METHOD	RESULT	UNITS	LIMIT	D_F	DATE ANAL	BATCH_ID
Diesel Range OG Soil/M8015 Diesel Range OG in Soil	1600	mg/Kg	50	5.0	05/16/97	SDRO26



A handwritten signature in dark ink, appearing to read "W. Biava", written over a horizontal line.

William P. Biava
President



WORKORDER COMMENTS

DATE : 05/21/97
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



7100 JEFFERSON, N.E.
ALBUQUERQUE, NEW MEXICO 87109

7300 JEFFERSON, N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-9884

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 893-6000

1910 N. BIG SPRING
MIDLAND, TEXAS 79705
(915) 570-1116

MELQUIADES ALANIS
 6441 LOCAL 1100

CIUDAD JUAREZ, CHIHUAHUA MEXICO 32320

~~Project Manager / Contact Jeff Cross~~

Telephone No. (505) 774-6643

Fax No. (505) 774-5624

Samplers: (Signature) _____

Client Apache Corporation

Address 304 N. Behrend

City of San Francisco, NM 87401

... TICAPILLA PIT CLOSURES

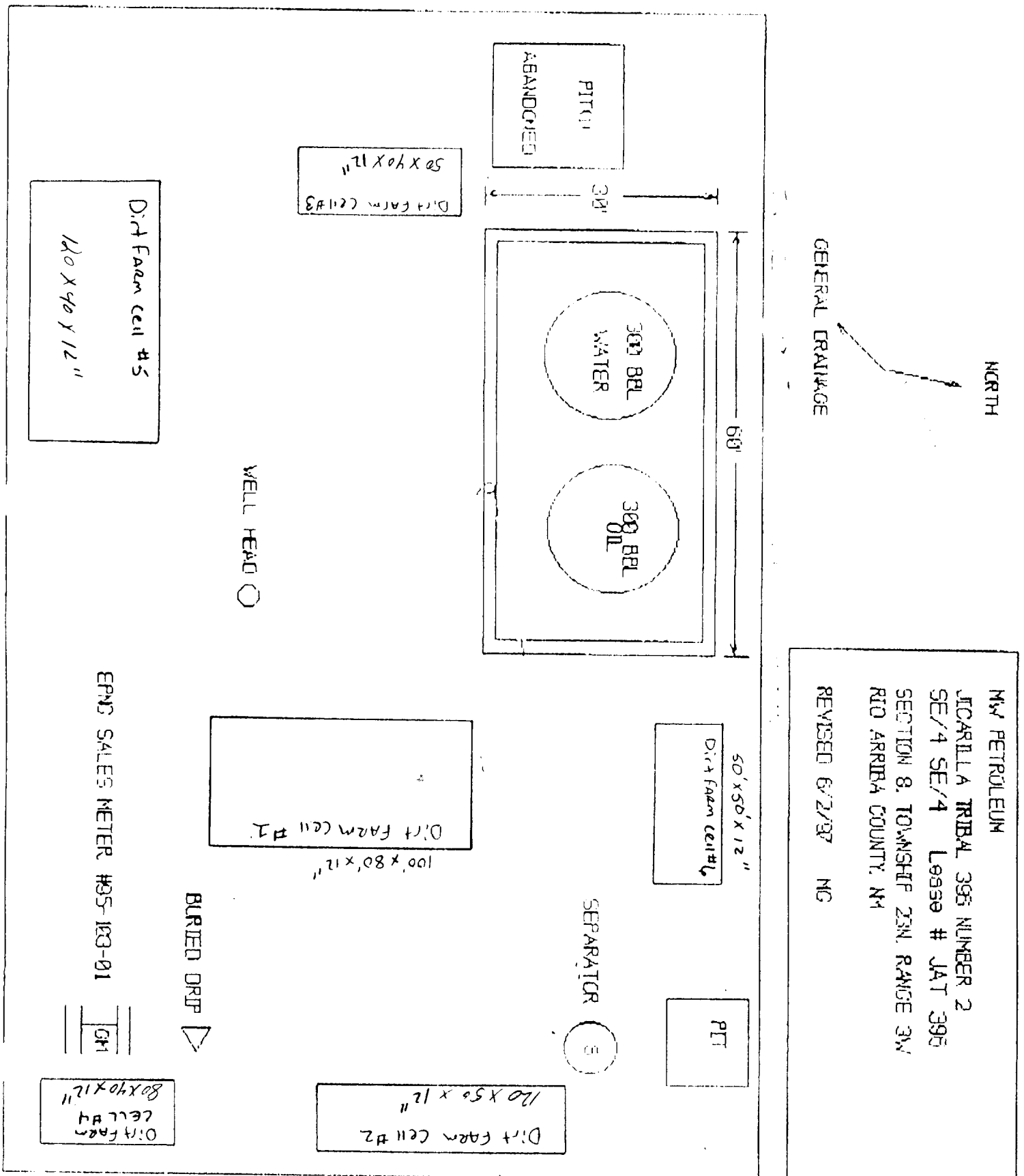
Contract / Purchase Order / Quote _____

ALL FACILITY NUMBER	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation	
						Temp.	Chemical
01A	JAT 356 #2 Blaupt 2 sides	5-12-97	12:30	SOL	402 g/25		ICG
01B	" " "	5-12-97	12:30				
02A	" " Bottom	" "	12:45				
02B	" " Bottom	" "	12:45				
03A	JAT 356 #2 pit 2 sides	" "	13:10				
03B	" " "	" "	13:10				
04A	" " Bottom	" "	13:30				
04B	" " Bottom	" "	13:30				

Relinquished by:	Received by:	Date	Relinquished by:
Signature _____	Signature <i>Elvin J. Clark</i>	<i>5/14/63</i>	Signature <i>Clayton Lamm</i>
Printed _____	Printed <i>Elvin J. Clark</i>	Time	Printed <i>J. E. F. Carrico</i>
Company _____	Company <i>AACT</i>	<i>2:55</i>	Company <i>Apache Corp.</i>
Reason _____	Reason _____		

[illegible]

LABORATORY



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 PETROLUEM</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 396 # 2 CELL # 1</u>	
Location: Unit or Qtr/Qtr Sec <u>P</u> Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/6/97</u> Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>210</u>	
Composted _____	
Other <u>SOIL TO BE SPREAD ON LOCATION.</u>	
Depth to Groundwater: (pts) <u>0</u>	Final Closure Sampling Sampling Date: <u>6/10/98</u> Time: <u>12:00PM</u> Sample Results: Field Headspace (ppm) <u>0</u> TPH (ppm) <u>1900</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>7/13/98</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 _____ (REASON) _____	
SIGNED: <u>Kearney</u> DATE: <u>7-29-98</u>	

210
120
390
65
455
100
555
110
665
75
740

JICARILLA APACHE TRIBE
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ON-SITE SOIL REMEDIATION REPORT

Operator: <u>M W PETROLUEM</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 396 # 2 CELL # 2</u>	
Location: Unit or Qtr/Qtr Sec <u>P</u> Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/6/97</u> Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>180</u>	
Composted _____	
Other <u>SOIL TO BE PUT BACK IN PIT.</u>	
Depth to Groundwater: (pts) <u>0</u>	Final Closure Sampling
Distance to an Ephemeral Stream: (pts) <u>0</u>	Sampling Date: <u>6/10/98</u> Time: <u>12:10PM</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>0</u>
Distance To Surface Water: (pts) <u>0</u>	TPH (ppm) <u>ND</u> Method <u>M8015</u>
RANKING SCORE (TOTAL POINTS) <u>0</u>	Other <u>BTEX \ SW846 , 8020A (ND)</u>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>7/13/98</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 _____ (REASON) _____	
SIGNED: <u>Kurt C Mamm</u> DATE: <u>1-29-98</u>	

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

Submit 1 copy to
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ON-SITE SOIL REMEDIATION REPORT

Operator: <u>M W PETROLUEM</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 396 # 2 CELL # 3</u>	
Location: Unit or Qtr/Qtr Sec <u>P</u> Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/6/97</u> Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>65</u>	
Composted <u> </u>	
Other <u>SOIL TO BE PUT BACK IN PIT.</u>	
Depth to Groundwater: (pts) <u>0</u>	Final Closure Sampling Sampling Date: <u>6/10/98</u> Time: <u>12:20PM</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>7/13/98</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>Kevin M. Marshall</u> DATE: <u>7-29-98</u>	

**Submit 1 copy to
Natural Resource Dept.
and Oil & Gas Administration**

Operator: <u>M W PETROLUEM</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 396 # 2 CELL # 4</u>			
Location: Unit or Qtr/Qtr Sec <u>P</u>		Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>			
Date Remediation Started: <u>5/6/97</u>		Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u>		Approx. cubic yards <u>100</u>	
Composted <u> </u>			
Other <u> </u>		<u>SOIL TO BE PUT BACK IN PIT.</u>	
Depth to Groundwater: (pts) <u>0</u>		Final Closure Sampling Sampling Date: <u>6/10/98</u> Time: <u>12:30PM</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>7/13/98</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>Kevin C. Marshall</u>		DATE: <u>7-29-98</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

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>M W PETROLUEM</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 396 # 2 CELL # 5</u>			
Location: Unit or Qtr/Qtr Sec <u>P</u> Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>			
Land Type <u>JIC. TRIBAL</u>			
Date Remediation Started: <u>5/6/97</u>		Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u>		Approx. cubic yards <u>110</u>	
Composted <u> </u>			
Other <u> </u>		<u>SOIL TO BE PUT BACK IN PIT.</u>	
Depth to Groundwater: (pts) <u>0</u>		Final Closure Sampling Sampling Date: <u>6/10/98</u> Time: <u>12:40PM</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>7/13/98</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>KooC Ma</u>		DATE: <u>7-29-98</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

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>M W PETROLUEM</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 396 # 2 CELL # 6</u>	
Location: Unit or Qtr/Qtr Sec <u>P</u> Sec <u>8</u> T <u>23N</u> R <u>3W</u> County <u>RIO ARRIBA</u>	
Land Type <u>JIC. TRIBAL</u>	
Date Remediation Started: <u>5/9/97</u> Date Completed: <u>6/10/98</u>	
Remediation Method: Landfarmed <u>XXX</u> Approx. cubic yards <u>75</u>	
Composted _____	
Other <u>SOIL TO BE PUT BACK IN PIT.</u>	
Depth to Groundwater: (pts) <u>0</u>	Final Closure Sampling Sampling Date: <u>6/10/98</u> Time: <u>12:50PM</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>7/13/98</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 _____ (REASON) _____	
SIGNED: <u>SK [Signature]</u> DATE: <u>7-29-98</u>	

M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 396 # 2

* AMOUNT OF SOIL UNDERGOING REMEDIATION 721 Yds.

CELL No. <u>1</u>	SampDATE 6/10/98	TPH 1900	BTEX ND
DIMENSIONS(LxWxH) <u>100' X 80' X 12"</u>			
CELL LOCATION (dir. from well head <u>EAST</u>			
* DATE BEGAN: <u>5/6/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
CELL No. <u>2</u>	SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>120' X 50' X 12"</u>			
CELL LOCATION (dir. from well head <u>EAST</u>			
* DATE BEGAN: <u>5/6/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
CELL No. <u>3</u>	SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>50' X 40' X 12"</u>			
CELL LOCATION (dir. from well head <u>WEST</u>			
* DATE BEGAN: <u>5/6/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
REMEDICATION RECORD: (Date, Treatment, Tilling)			
5/13/97 TREAT ALL CELLS WITH 46-0-0 FERTILIZER, WATER, PLOW AND TILL SOIL.			
5/16/97 TILL ALL CELLS.			
7/11/97 PLOW AND TILL ALL CELLS.			
8/14/97 WATER , PLOW AND TILL ALL CELLS.			
4/28/98 PLOW ALL CELLS.			
4/29/98 TILL ALL CELLS.			
5/3/98 WATER , PLOW AND TILL ALL CELLS.			
6/2/98, 6/3/98 PLOW AND TILL ALL CELLS.			

From excavation reports.

M W PETROLEUM/FARMINGTON DISTRICT SOIL REMEDIATIONS STATUS REPORT

REMEDIATION SITE JAT 396 # 2

* AMOUNT OF SOIL UNDERGOING REMEDIATION 721 Yds.

CELL No. <u>4</u>	SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>80' X 40' X 12"</u>			
CELL LOCATION (dir. from well head) <u>EAST</u>			
* DATE BEGAN: <u>5/6/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
CELL No. <u>5</u>	SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>120' X 40' X 12"</u>			
CELL LOCATION (dir. from well head) <u>SOUTH</u>			
* DATE BEGAN: <u>5/6/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
CELL No. <u>6</u>	SampDATE 6/10/98	TPH ND	BTEX ND
DIMENSIONS(LxWxH) <u>50' X 50' X 12"</u>			
CELL LOCATION (dir. from well head) <u>NORTH</u>			
* DATE BEGAN: <u>5/9/97</u>			
DATE TERMINATED (TPH <5,000 ppm/BTEX< 50 ppm/Benzene < 10 ppm) <u>6/10/98</u>			
REMEDIATION RECORD: (Date, Treatment, Tilling)			

From excavation reports.

WELL NAME:

JAT 396 #2 Cell #1

SAMPLE DATE:

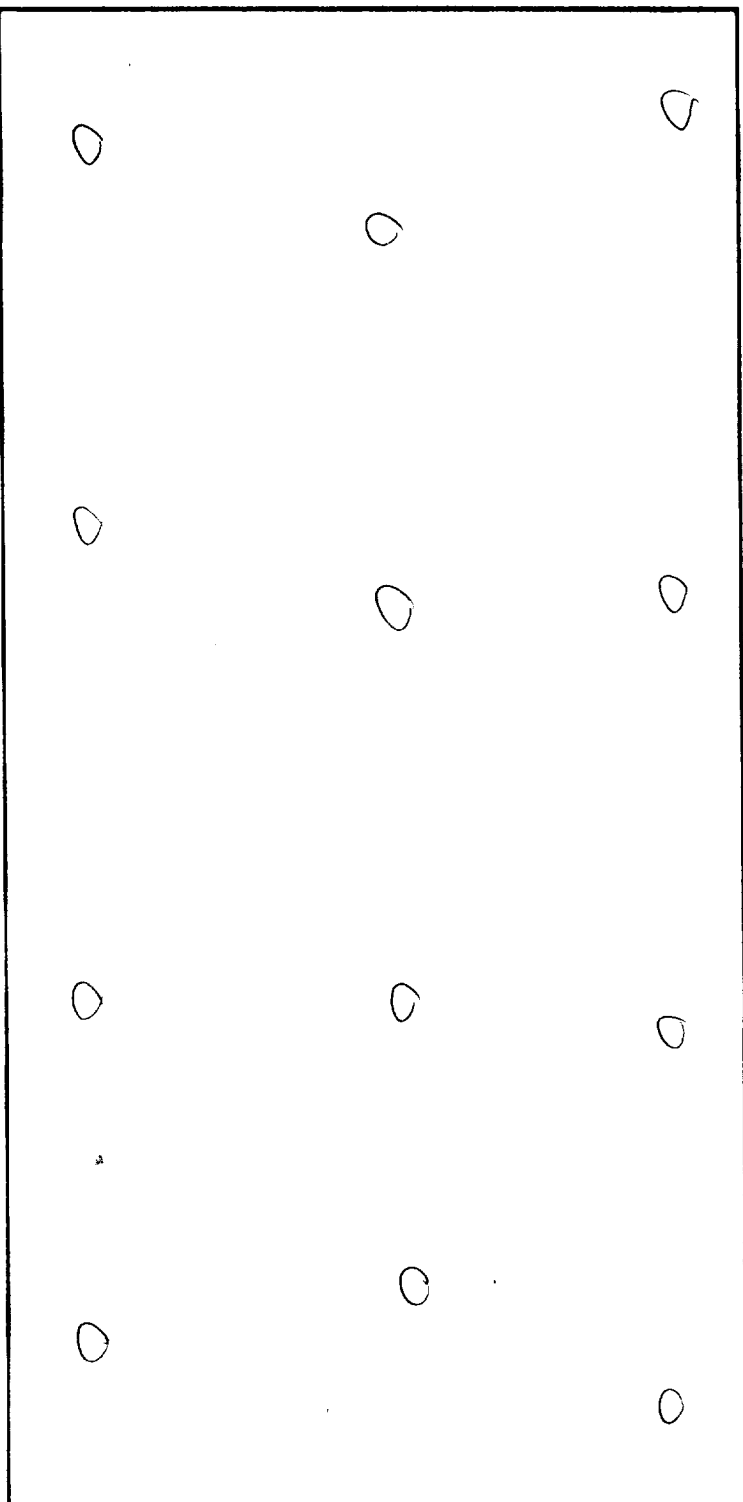
6-10-98

DIMENSIONS:

156' x 80' x 12"



= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

12 Point composite Sample

WELL NAME:

JAT 3416 #2 Cell #2

SAMPLE DATE:

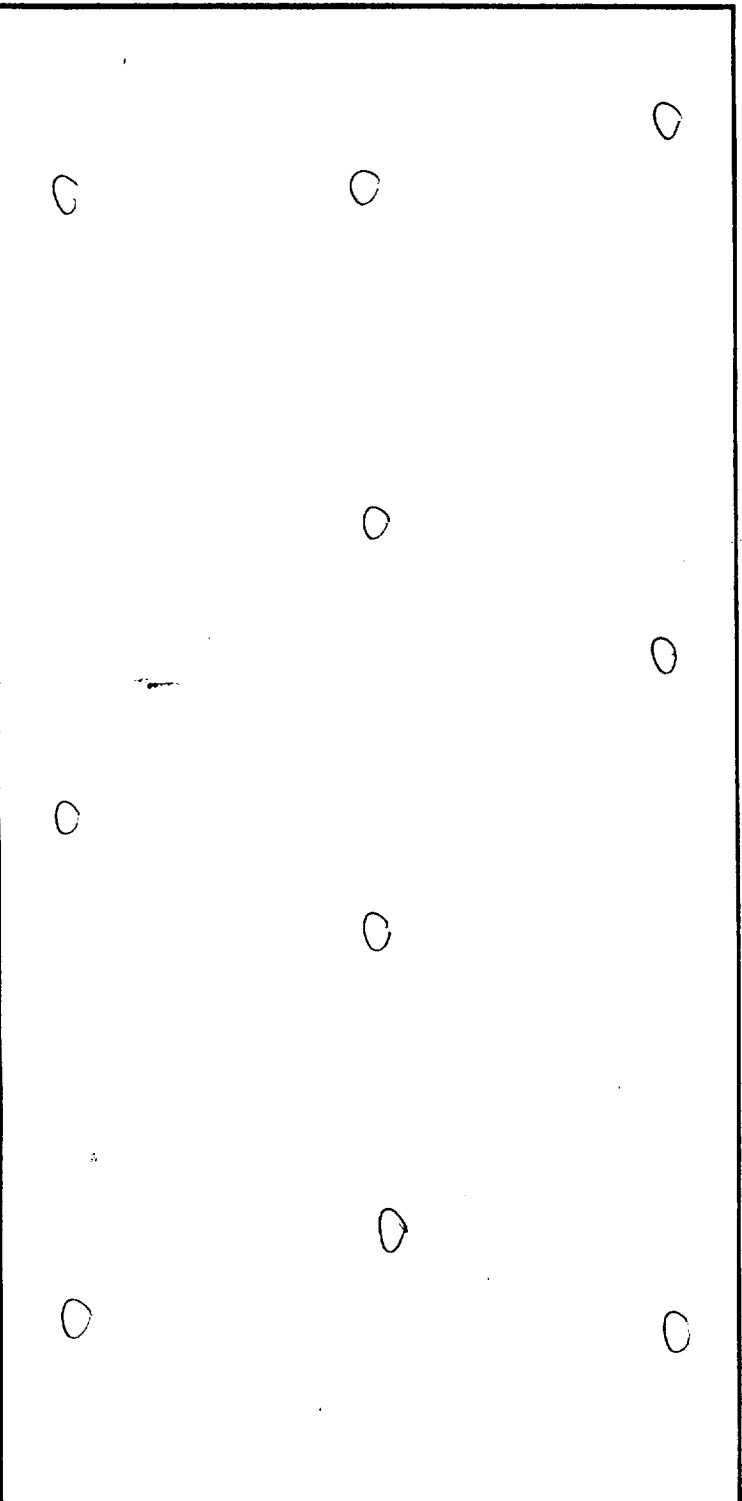
6-10-98

DIMENSIONS:

152' x 58' x 12



= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

10 point composite sample

WELL NAME:

JAT 346 #2 Cell #3

SAMPLE DATE:

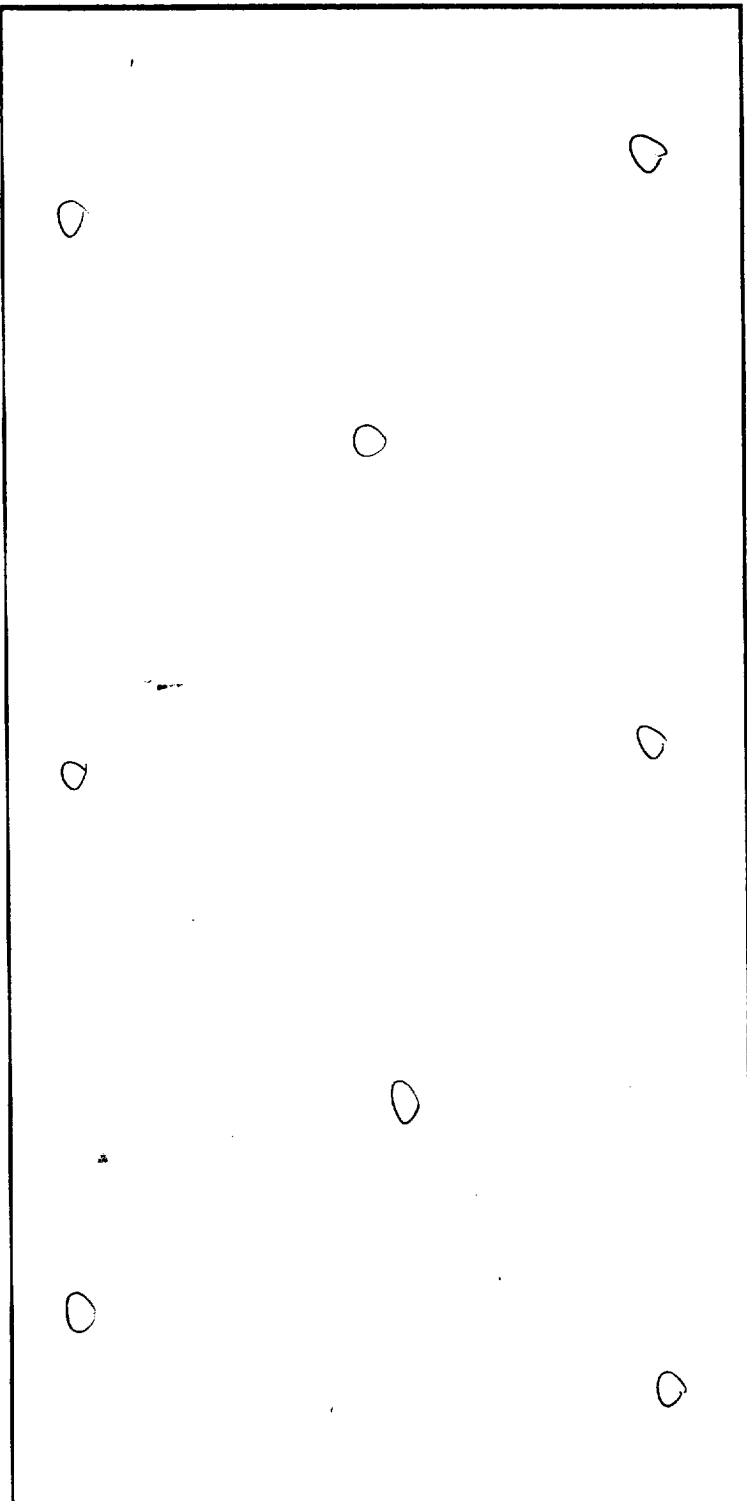
6-10-98

DIMENSIONS:

50' x 40' x 12"



= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

8 point composite sample

WELL NAME:

SAT 346 #2 cell #4

SAMPLE DATE:

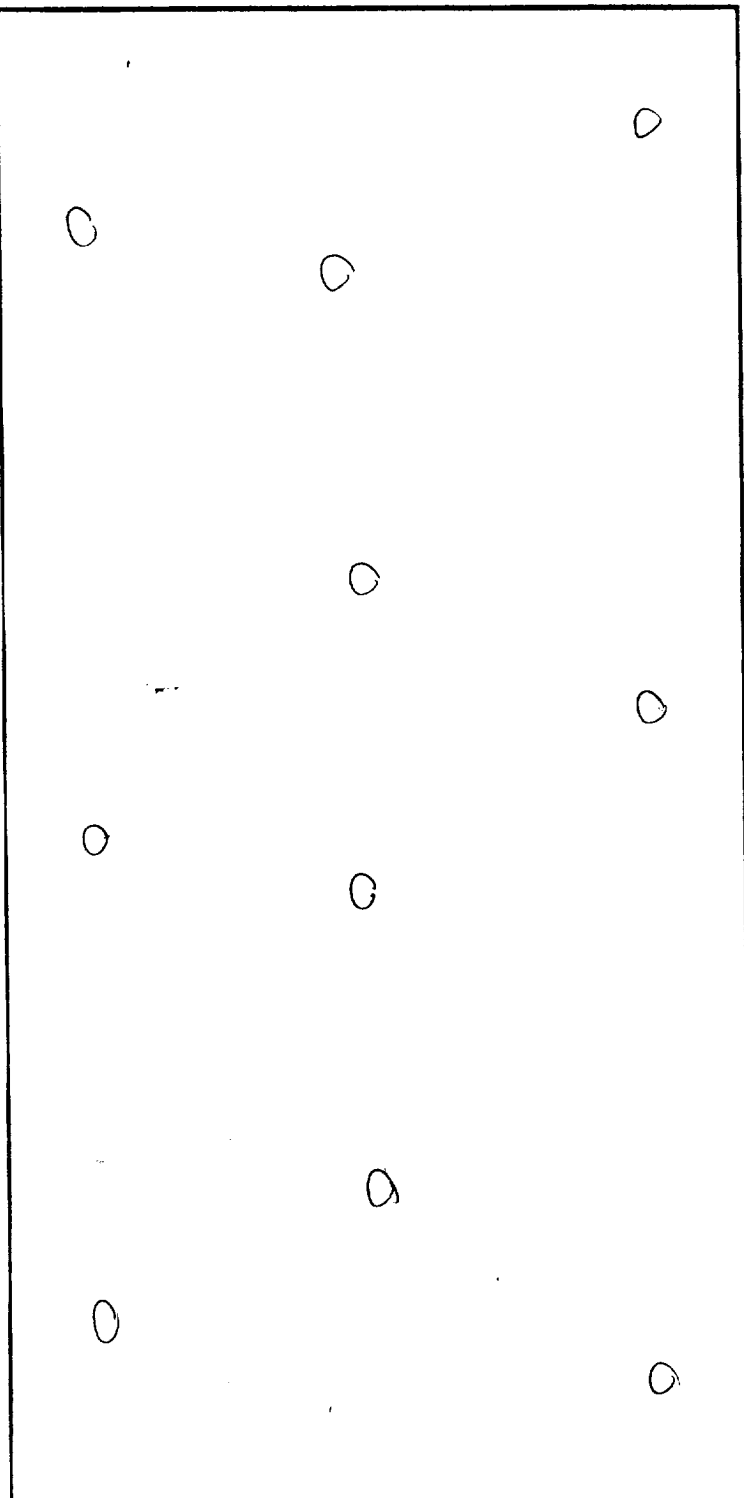
6-10-98

DIMENSIONS:

80' x 40' x 12"



= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

10 pairs + composite Sample

WELL NAME:

SAT 356 #2 Cell #5

SAMPLE DATE:

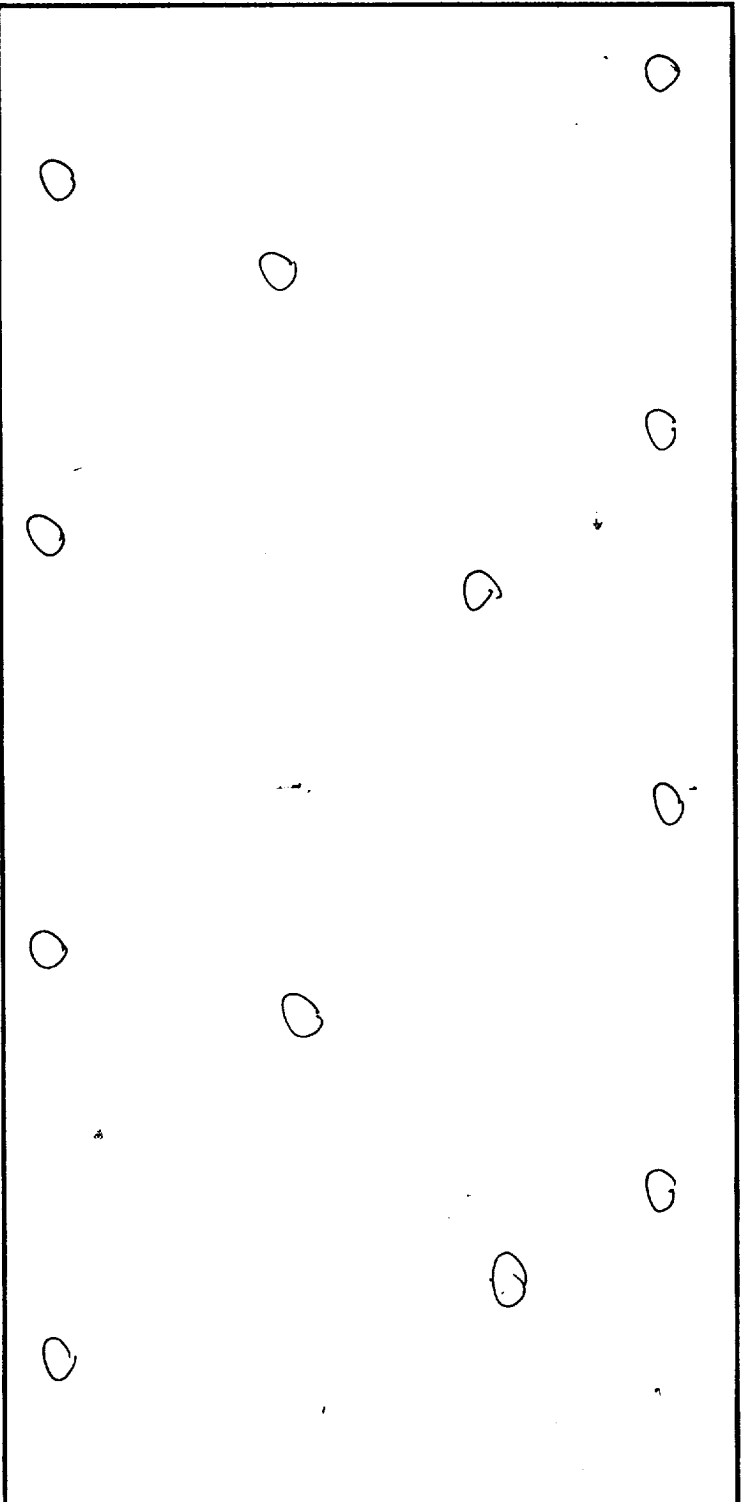
6-10-98

DIMENSIONS:

120' x 40' x 12"



= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

12 point composite Sample

WELL NAME:

JAT 336 #2 Cell #6

SAMPLE DATE:

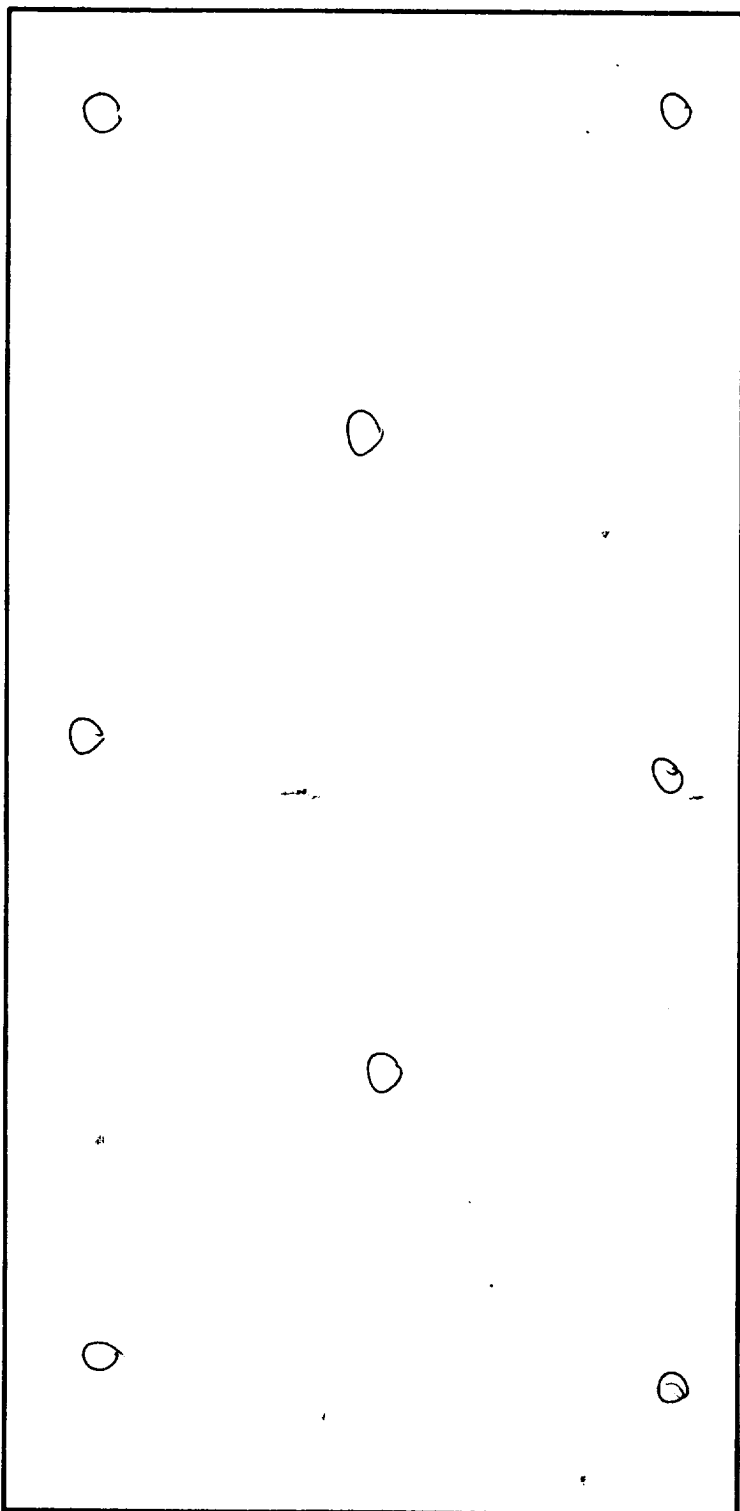
6-10-98

DIMENSIONS:

50' X 50' X 12"



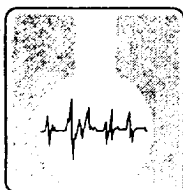
= SAMPLE AREA



NOTES:

ALL SAMPLES TAKEN 10" TO 12" INTO CELL.

8 point composite sample



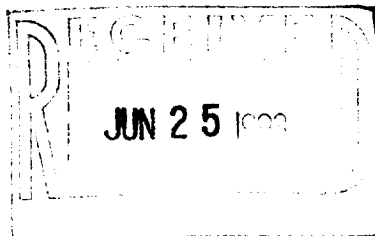
ASSAIGAI ANALYTICAL LABORATORIES, INC.

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

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127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

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: **9806180 JICARILLA**

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

Client Sample ID	JAT 396 #2 CELL #1	Sample Matrix	SOIL	Sample Collected	06/10/98 12:00:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-01A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-12	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.535-12	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-12	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.535-12	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-12	
SW846-8015 Modified TPH									
9806180-01B	X98328		Diesel Range Organics	1900	mg / Kg	25	25	XG.1998.556-13	06/20/98

Client Sample ID	JAT 396 #2 CELL #2	Sample Matrix	SOIL	Sample Collected	06/10/98 12:00:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-02A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-13	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.535-13	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-13	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.535-13	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-13	
SW846-8015 Modified TPH									
9806180-02B	X98328		Diesel Range Organics	ND	mg / Kg	25	25	XG.1998.556-14	06/20/98



Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

Client: **APACHE CORPORATION**
Project: **9806180 JICARILLA**

Client Sample ID	JAT 396 #2 CELL #3	Sample Matrix	SOIL	Sample Collected	06/10/98 12:20:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-03A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG. 1998.535-14	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG. 1998.535-14	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG. 1998.535-14	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG. 1998.535-14	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG. 1998.535-14	
SW846-8015 Modified TPH									
9806180-03B	X98328		Diesel Range Organics	ND	mg / Kg	25	25	XG. 1998.556-15	06/20/98

Client Sample ID	JAT 396 #2 CELL #4	Sample Matrix	SOIL	Sample Collected	06/10/98 12:30:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-04A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG. 1998.535-15	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG. 1998.535-15	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG. 1998.535-15	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG. 1998.535-15	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG. 1998.535-15	
SW846-8015 Modified TPH									
9806180-04B	X98328		Diesel Range Organics	ND	mg / Kg	25	25	XG. 1998.556-16	06/20/98

Client Sample ID	JAT 396 #2 CELL #5	Sample Matrix	SOIL	Sample Collected	06/10/98 12:40:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-05A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG. 1998.535-16	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG. 1998.535-16	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG. 1998.535-16	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG. 1998.535-16	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG. 1998.535-16	
SW846-8015 Modified TPH									
9806180-05B	X98328		Diesel Range Organics	ND	mg / Kg	25	25	XG. 1998.556-17	06/21/98

Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

Client: **APACHE CORPORATION**
Project: **9806180 JICARILLA**

Client Sample ID	JAT 396 #2 CELL #6	Sample Matrix	SOIL	Sample Collected	06/10/98 12:50:00
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Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
SW846-8010/8020 Volatiles									
9806180-06A	X98326	71-43-2	Benzene	ND	mg / Kg	50	0.005	XG.1998.535-17	06/15/98
	X98326	100-41-4	Ethylbenzene	ND	mg / Kg	50	0.005	XG.1998.535-17	
	X98326	95-47-6	o-Xylene	ND	mg / Kg	50	0.005	XG.1998.535-17	
	X98326		P/M-Xylenes	ND	mg / Kg	50	0.01	XG.1998.535-17	
	X98326	108-88-3	Toluene	ND	mg / Kg	50	0.005	XG.1998.535-17	
SW846-8015 Modified TPH									
9806180-06B	X98328		Diesel Range Organics	ND	mg / Kg	25	25	XG.1998.556-18	06/21/98

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

Chain of Custody Record



Lab job no. 6080 Date 4/12/99
Page 1 of 2

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 _____

ANALYSTS REQUIRED
BTEX
DRO
TKN
No. of Containers

AAL FRACTION NUMBER	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp. / Chemical	Remarks
1A	JAT 396 #2 cell #1	6-10-98	12:00	SOIL	4 oz glass	Ice	
1B	1		1		4 oz glass		
2A	JAT 396 #2 cell #2		12:10				
2B	1		1				
3A	JAT 396 #2 cell #3		12:20				
3B	1		1				
4A	JAT 396 #2 cell #4		12:30				
4B	1		1				
5A	JAT 396 #2 cell #5		12:40				
5B	1		1				
6A	JAT 396 #2 cell #6		12:50				
6B	1		1				

Relinquished by: Signature <u>Jeff Cross</u> Printed <u>Jeff Cross</u> Company <u>Apache Corp</u> Reason _____	Received by: Signature <u>John D. B.</u> Printed <u>John D. B.</u> Company _____ Reason _____	Date <u>4/12/99</u> Time <u>8:30</u>	Date <u>4/12/99</u> Time <u>7:00</u>
Method of Shipment: _____ Shipments No. _____ Special Instructions: _____		After analysis, samples are to be: <input type="checkbox"/> Disposed of (additional fee) <input type="checkbox"/> Stored (30 days max) <input type="checkbox"/> Stored over 30 days (ad. fee) <input type="checkbox"/> Returned to customer	

LABORATORY