

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  
Natural Resource Dept.  
and Oil & Gas Administration

OK  
Note  
Sample  
Headspace

**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: JAT 360 #3

Location: Unit or Qtr/Qtr Sec NE/NE Sec 2 T 22N R 3W County SANDOVAL

Pit Type: Separator: \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other BLOW PIT

Land Type: JIC. TRIBAL

Beginning Pit Dimensions: Length 50' Width 30' Depth 6'

Pit Location: Ending Pit Dimensions: Length 50' Width 30' Depth 6'

(Attach diagram)

Reference: Wellhead XXX Other \_\_\_\_\_

Footage from reference: 125'

Direction from reference: 140 Degrees \_\_\_\_\_ East of \_\_\_\_\_ North \_\_\_\_\_

\_\_\_\_\_ West \_\_\_\_\_ South X

**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)

**Distance to an Ephemeral Stream:** Less than 100 feet (10 points) \_\_\_\_\_

(Downgradient dry wash greater than Greater than 100 feet (0 points) 0

ten feet in width)

**Distance to Nearest Lake, Playa, or Watering Pond:** Less than 100 feet (10 points) \_\_\_\_\_

(Downgradient lakes, playas and Greater than 100 feet (0 points) 0

livestock or wildlife watering ponds)

**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 100 feet (20 points) \_\_\_\_\_

(Horizontal distance to perennial 100 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:** 11/18/1999 **Date Completed:** 09/21/2000

**Remediation Method:** Excavation Approx. cubic yards  
 (Check all appropriate sections) Landfarmed Insitu Bioremediation  
Other Core sample 4' below pit bottom center, composite core sample 4' below pit bottom corners

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

**General Description of Remedial Action:** NONE REQUIRED, NO CONTAMINATION DETECTED  
9/21/00 BACKFILLED AND RESEEDDED

**Groundwater Encountered:** No XXX Yes Depth

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**Final Pit:** Sample location Core sample 4' below pit bottom center, 4 points composite sample of pit corner  
**Closure Sampling:** Sample depth CORE SAMPLE 4' BELOW PIT BOTTOM.  
 (in multiple samples, attach sample results and diagram of sample locations and depths)

<u>Sample Date</u>	<u>11/18/1999</u>	<u>Sample Time</u>	<u>12:30PM, 12:45PM</u>
<u>Sample results</u>	<u>corner/center</u>		

<u>Soil:</u>	<u>Benzene</u>	<u>(ppm)</u>	<u>ND/ND</u>	<u>Water:</u>	<u>Benzene</u>	<u>(ppb)</u>	<u>NA</u>
	<u>Total BTEX</u>	<u>(ppm)</u>	<u>ND/ND</u>		<u>Toluene</u>	<u>(ppb)</u>	<u>NA</u>
	<u>Field Headspace</u>	<u>(ppm)</u>	<u>ND/ND</u>		<u>Ethylbenzene</u>	<u>(ppb)</u>	<u>NA</u>
	<u>TPH</u>	<u>(ppm)</u>	<u>ND/ND</u>		<u>Total Xylenes</u>	<u>(ppb)</u>	<u>NA</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** 11-22-00 **PRINTED NAME** Jeff Cross  
**SIGNATURE** Jeff Cross **AND TITLE** Project Manager

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

Operator: <u>APACHE CORPORATION</u>		Telephone <u>505-325-0318</u>	
Address: <u>2855 SOUTH SIDE RIVER ROAD FARMINGTON N.M. 87401</u>			
Facility or Well Name: <u>JAT 360 # 3</u>			
Location:	Unit or Qtr/Qtr	Sec	<u>NE/NE SEC 2 T 22N R 3W</u> County <u>SANDOVAL</u>
Pit Type:	Separator: <u>          </u>	Dehydrator <u>          </u>	Other <u>BLOW PIT</u>
Land Type: <u>JIC. TRIBAL</u>			
Pit Location: Pit Dimensions: Length <u>50'</u> Width <u>30'</u> Depth <u>6'</u>			
(Attach diagram)			
Reference: Wellhead <u>XXX</u> Other <u>                                </u>			
Footage from reference: <u>125'</u>			
Direction from reference: <u>140°</u> Degrees <u>          </u> East North <u>          </u>			
<u>          </u> West of South <u>X</u>			
<b>Depth To Groundwater:</b>		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)			
<b>Distance to an Ephemeral Stream:</b>		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			
<b>Distance to Nearest Lake, Playa, or Watering Pond:</b>		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)			
<b>Wellhead Protection Area:</b>		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)			
<b>Distance To Surface Water:</b>		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: 11/18/99 Date Completed: 9-21-00

Remediation Method: Excavation \_\_\_\_\_ Approx. cubic yards \_\_\_\_\_  
(Check all appropriate sections) Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_  
Other Core sample 4' below pit bottom center, composite core sample 4' below pit bottom corners.

Remediation Location: Onsite XX Offsite \_\_\_\_\_  
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: 9-21-00 Backfill pit & Reseed.

NONE Required, Pit to be Backfilled and Reseeded.  
NO Contamination Detected

Groundwater Encountered: No XXX Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location core sample 4' below pit bottom center, 4 point composite sample of pit bottom corners.

Closure Sampling:

(in multiple samples, attach sample results

and diagram of sample locations and depths)

Sample depth

CORE SAMPLE 4' BELOW PIT BOTTOM.

Sample Date

11/18/99

Sample Time;

12:30Pm, 12:45Pm

Sample results

Soil:

Benzene

(ppm)

corners/center

ND/ND

Water:

Benzene

(ppb)

NA

Total BTEX

(ppm)

ND/ND

Toluene

(ppb)

NA

Field Headspace

(ppm)

ND/ND

Ethylbenzene

(ppb)

NA

TPH

(ppm)

ND/ND

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 9-21-2000 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: 11-9-00

# Pit Impact Rating Sheet

Well Name: JAT 360 # 3  
 Well Location: NE/NE SEC 2 T 22 N R 3 W  
 Number of Pits at Location: 1  
 Pit Number and Usage: BLOW PIT  
 Estimated Elevation: 7100'  
 Estimated Groundwater Elevation: \_\_\_\_\_  
 Vulnerable Area: YES XX NO \_\_\_\_\_  
 Fluid in Pits: YES \_\_\_\_\_ NO XX \_\_\_\_\_  
 % Water: 0  
 % Oil: 0  
 Visual Soil Contamination:  
 Highly Contamination/Saturated Soils: NONE  
 Unsaturated Contamination (Odor or PID Reading): ND  
 Suspected Groundwater Contamination: NO XX YES \_\_\_\_\_  
 Reason for Suspicion: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## RATING:

Depth to Groundwater: < 50'                      20 50' - 99'                10 > 100'                   0 Rating <u>0</u>	Wellhead Protection Area: < 1000' from water source, or <200' from a domestic source? Yes        20 No         0 Rating <u>0</u>
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Distance to Surface Water: < 200' horizontal feet        20 200' - 1000' horizontal feet   10 > 1000' horizontal feet       0 Rating <u>0</u>	Distance to Ephemeral stream > 10 feet width < 100' horizontal feet        Yes        10 > 100' horizontal feet        No         0 Rating <u>0</u>  Distance to Lake, Playa or Watering Pond < 100' horizontal feet        Yes        10 > 100' horizontal feet        No         0 Rating <u>0</u>
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## FINAL SOIL REMEDIATION STANDARDS:

Total Rating      0

TPH: 5000 ppm  
 Benzene: 10 ppm  
 BTEX: 50 ppm

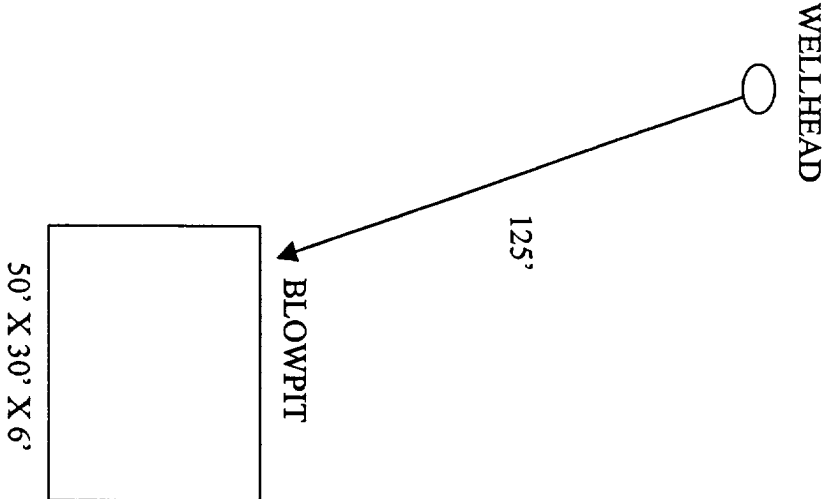
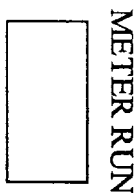
## KNOWN ANALYSIS:

Soil:            TPH: <u>ND</u> ppm	Benzene: <u>ND</u> ppm	BTEX: <u>ND</u> ppm
Groundwater: TPH: <u>NA</u> ppm	Benzene: <u>NA</u> ppm	BTEX: <u>NA</u> ppm

## PROBABLE SOIL REMEDIATION TECHNIQUE:

Bioremediation: On-Site \_\_\_\_\_  
 \_\_\_\_\_  
 Composting: \_\_\_\_\_  
 \_\_\_\_\_  
 Disposal:        Facility Name \_\_\_\_\_  
 Thermal Desorption: \_\_\_\_\_  
 Soil Venting: \_\_\_\_\_  
 Other: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

JAT 360 # 3  
NE/NE (A) SEC 2 T22N R3W  
SANDOVAL, COUNTY N.M.

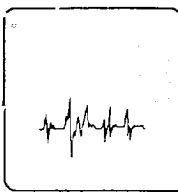


AFACHE CORPORATION/FARMINGTON DISTRICT  
PIT EXCAVATION AND CLOSURE REPORT

LOCATION JAT 360 # 3

PIT COUNT 1

START								FINISH		
DIMENSIONS										
	L	W	D			L	W	D	CU YDS	
Pit 1	50'	30'	6'	Pit 1						
Pit 2				Pit 2						
Pit 3				Pit 3						
DATE:		Pit 1 @ 10'	Pit 2 @	Pit 3 @	Date:	Pit 1 @	Pit 2 @	Pit 3 @		
<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center	ND			<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center				
	NW Corner	ND				NW Corner				
	NE Corner	ND				NE Corner				
	SW Corner	ND				SW Corner				
	SE Corner	ND				SE Corner				
NOTE PIT SHOWS NO VISIALE STAINING , OVERGROWN WITH SAGEBRUSH.										
11/18/99 TOOK ONE CORE SAMPLE 4' BELOW PIT BOTTOM CENTER , PID READIND ND. NO VISIALE STAINING OR ODOR.										
11/18/99 TOOK 4 POINT COMPOSITE CORE SAMPLE 4' BELOW PIT BOTTOM CORNERS. PID READINGS ND. WITH NO VISIALE STAINING OR ODOR.										
DATE		11/18/99		SOIL SAMPLING						
		Pit 1 @ 10'	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB	Assagai	
<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center	ND			PIT NO	TPH	BETEX	WITNESS	DATE	
	NW Corner	ND				SIDE\BTM	SIDE\BTM			
	NE Corner	ND				1	ND / ND	ND / ND	J.C.	11/18/99
	SW Corner	ND				2				
	SE Corner	ND				3				
RE-SAMPLE										
DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB		
<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center				PIT NO	TPH	BETEX	WITNESS	DATE	
	NW Corner					SIDE\BTM	SIDE\BTM			
	NE Corner					1				
	SW Corner					2				
	SE Corner					3				
RE-SAMPLE										
DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB		
<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center				PIT NO	TPH	BETEX	WITNESS	DATE	
	NW Corner					SIDE\BTM	SIDE\BTM			
	NE Corner					1				
	SW Corner					2				
	SE Corner					3				
RE-SAMPLE										
DATE:		Pit 1 @	Pit 2 @	Pit 3 @	ANALYSIS RESULTS			PER LAB		
<div style="background-color: #cccccc; width: 20px;">P I D</div>	Center				PIT NO	TPH	BETEX	WITNESS	DATE	
	NW Corner					SIDE\BTM	SIDE\BTM			
	NE Corner					1				
	SW Corner					2				
	SE Corner					3				



# ASSAIGAI ANALYTICAL LABORATORIES, INC.

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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: **9911219 JIC. PIT REMEDIATION**

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

Client Sample ID **JAT 360#3 PIT SIDES** Sample Matrix **SOIL** Sample Collected **11/18/99 12:30:00**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
<b>9911219-01A SW846 5030A/8021B Purgeable VOCs by GC/PID</b>									
X99355	XG.1999.993-2	71-43-2	Benzene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-2	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-2	95-47-6	o-Xylene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-2		p/m-Xylenes	ND	mg / Kg	1	0.01	1	11/23/99
X99355	XG.1999.993-2	108-88-3	Toluene	ND	mg / Kg	1	0.005	1	11/23/99

<b>9911219-01A SW846 ME/8015A Diesel Range Organics by GC/FID</b>									
X99385	XG.1999.1002-4		Diesel Range Organics	ND	mg / Kg	1	25		11/30/99

Client Sample ID **JAT360#3 PIT CENTER** Sample Matrix **SOIL** Sample Collected **11/18/99 12:45:00**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
<b>9911219-02A SW846 5030A/8021B Purgeable VOCs by GC/PID</b>									
X99355	XG.1999.993-3	71-43-2	Benzene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-3	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-3	95-47-6	o-Xylene	ND	mg / Kg	1	0.005	1	11/23/99
X99355	XG.1999.993-3		p/m-Xylenes	ND	mg / Kg	1	0.01	1	11/23/99
X99355	XG.1999.993-3	108-88-3	Toluene	ND	mg / Kg	1	0.005	1	11/23/99





Assaigai Analytical Laboratories, Inc.  
**Certificate of Analysis**

Client: **APACHE CORPORATION**  
Project: **9911219 JIC. PIT REMEDIATION**

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9911219-02A      SW846 ME/8015A Diesel Range Organics by GC/FID

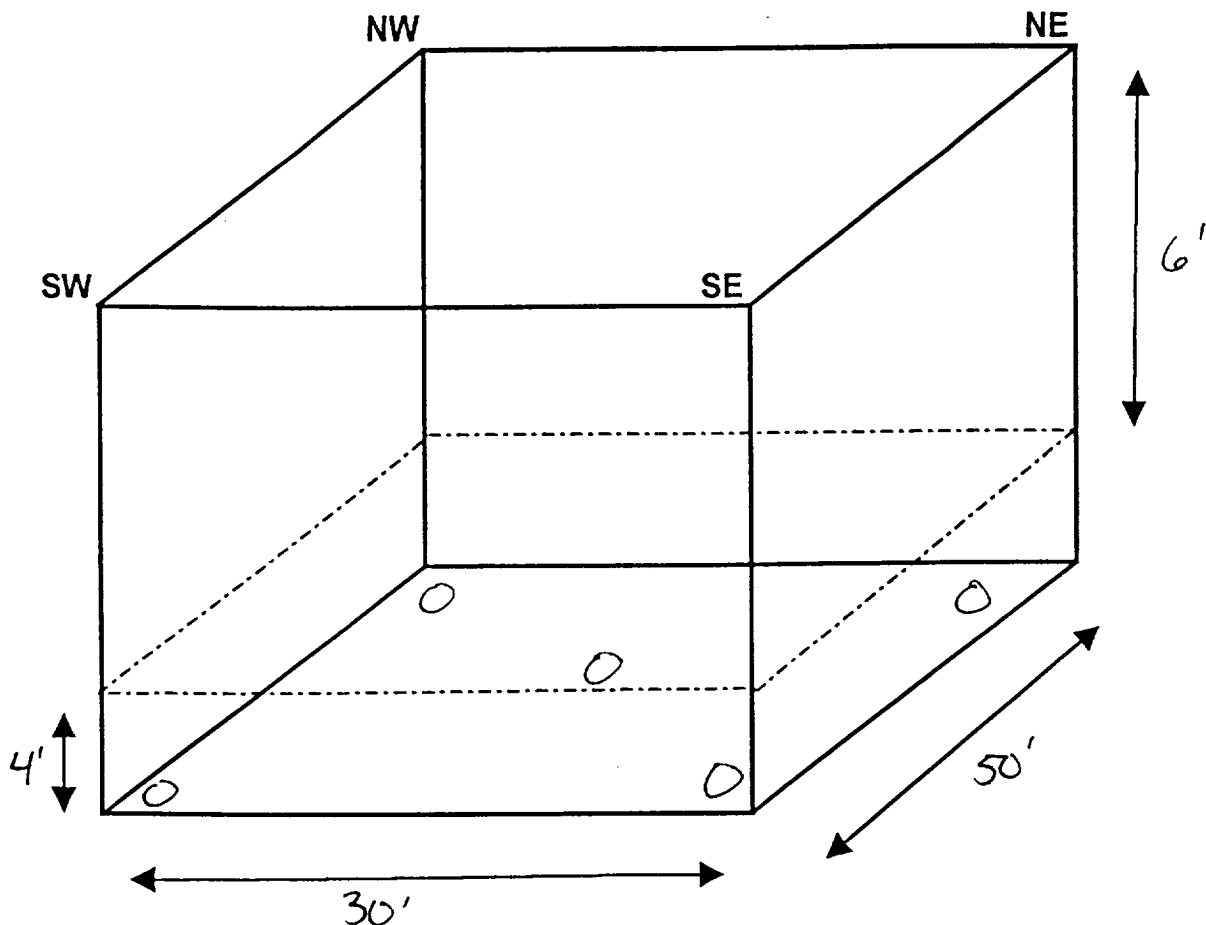
X99385	XG.1999.1002-5		Diesel Range Organics	ND	mg / Kg	1	25		11/30/99
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\*\*\* Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. \*\*\*  
\*\*\* ND = Not detected: less than the sample specific Detection Limit. Results relate only to the items tested. \*\*\*

**footnote**      <sup>1</sup>      Sample was received with headspace.

**memo**      Please note that the cooler was received at a temperature greater than 4 degrees C.





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= PIT BOTTOM



= SAMPLE AREA

WELL NAME

JAT 360 #3

SAMPLE DATE

11-18-99

NOTES

4 POINT COMPOSITE SAMPLE TAKEN 4' BELOW PIT

BOTTOM CORNERS.

1 POINT GRAB SAMPLE TAKEN 4' BELOW PIT BOTTOM CENTER