

DEPUTY OIL & GAS INSPECTOR

FEB 03 1999

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

SUBMIT FORM TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

Operator: Williams Production Company Telephone: 918-561-6250

Address: P.O.Box 3102, MS 37-4 Tulsa Ok. 74101

Facility or Well Name: JICARILLA 93 #10

Location: Unit or Qtr/Qtr Sec L Sec 32 T27N R3W County RIO ARriba

it Type: Separator___ Dehydrator___ Other PRODUCTION

and Type: JICARILLA APACHE RESERVATION

Location: Pit dimensions: length 16', width 16', depth 3'
(attach diagram)

Reference: wellhead____, other_____

Footage from reference: _____

Direction from reference: _____ Degrees _____ of _____ East North _____
 _____ West South _____

Depth To Groundwater:	Less than 50 feet	(20 points)	
Critical distance from -	50 feet to 99 feet	(10 points)	
Contaminants to seasonal	Greater than 100 feet	(0 points)	<u>0</u>
High water elevation of			
Groundwater)			

Distance to an Ephemeral Stream
own gradient dry wash greater than
(feet in width)

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

distance to Nearest Lake, Playa, or Watering Pond . . . Less than 100 feet (10 points)
own gradient lakes, playas and Greater than 100 feet (0 points) 0
stock or wildlife watering ponds)

Wellhead Protection Area:
 less than 200 feet from a private
 domestic water source, or: less than
 100 feet from all other water sources)

Yes (20 points)
 No (0 points) 0

Distance To Surface Water:
 Vertical distance to perennial
 ponds, rivers, streams, creeks,
 irrigation canals and ditches)

Less than 100 feet	(20 points)
100 feet to 1000 feet	(10 points)
Greater than 1000 feet	(0 points)

0

RANKING SCORE (TOTAL POINTS):

Date Remediation Started: 10/19/98 Date Completed: 10/21/98

Remediation Method: Excavation ☒ Approx. cubic yards 1076
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____

Other _____

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

General Description of Remedial Action: ON-SITE LAND FARMING

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location _____

Closure Sampling: JICARILLA 93 #10
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 23' + SIDEWALLS (ROCK ENCOUNTERED)

Sample date 10/21/98 Sample time 1115

Sample Results BOTT WALL
Soil: Benzene (ppm) 1.8/0016 Water: Benzene (ppb) _____
Total BTEX (ppm) 215.8/0056 Toluene (ppb) _____
Field Headspace (ppm) 1521/92 Ethylbenzene (ppb) _____
TPH (ppm) 2320/ND Total Xylenes (ppb) _____

Groundwater Sample: Yes _____ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 11/5/98 PRINTED NAME ROBERT THOMPSON
SIGNATURE Robert Thompson 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 ☒ NO _____ (REASON) R.A. and spray with fertilizer.

SIGNED: Karena J. Callado DATE: 11/5/98

Well Name:	Jicarilla 93 #10
Well Legals:	Unit L, Sec 32, T27N, R3W
Pit Type:	Production
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

Williams Production Company (Williams) requests closure of Jicarilla 93 #10 using a limited risk analysis of the site conditions.

1. Williams estimated groundwater to be at a depth of 170 feet based upon elevation of the site to Cedar Canyon. (Reference: topographic map.)
2. This site is not located within 200 feet of a domestic water well and is not within 1,000 feet of any other water source.
3. Distance from the site to surface water is greater than 1,000 feet.
4. Williams excavated 1076 cubic yards from the former pit. Sandstone was encountered at 23 feet below ground surface.

Based upon the information provided above, Williams believes the Jicarilla 93 #10 poses minimal risk to the environment. The bulk of the impacted soil was removed during the initial excavation minimizing the possibility of surface water contamination. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is highly unlikely. The excavation will be backfilled and graded to divert precipitation away from the excavation area. Residual hydrocarbons remaining in the soil at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment. A fertilizer was sprayed on the excavated pit walls and in the bottom of the excavation to further enhance the bio-remediation activity.

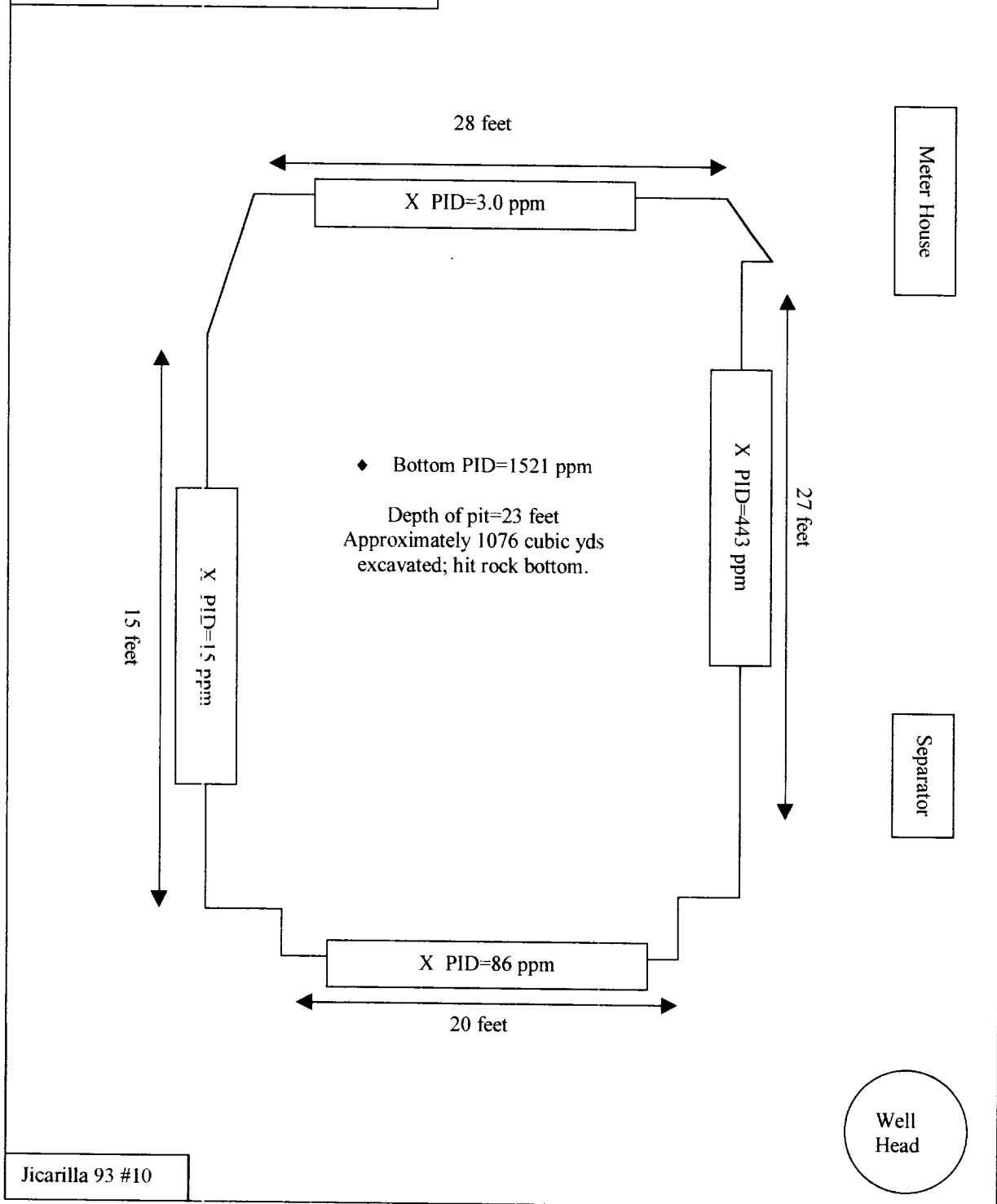
Drawing not to scale.

X=Wall Samples

◆ =Bottom Sample



- Soil Samples Collected on 10/21/98;
Bottom Sample collected at 23 feet bgs



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Oct-98

Client:	Philip Environmental	Client Sample Info:	Williams Production Pits
Work Order:	9810066	Client Sample ID:	Jicarilla 93 #10 Walls
Lab ID:	9810066-01A	Matrix:	SOIL
Project:	18684 7000.77	Collection Date:	10/21/98 11:15:00 AM
		COC Record:	C2309

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	10/29/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	10/27/98
BTEX		SW8020A				Analyst: DC
Benzene	1.6	1		µg/Kg	1	10/23/98
Toluene	4	2		µg/Kg	1	10/23/98
Ethylbenzene	ND	1		µg/Kg	1	10/23/98
m,p-Xylene	ND	2		µg/Kg	1	10/23/98
o-Xylene	ND	1		µg/Kg	1	10/23/98

Qualifiers:

PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
B - Analyte detected in the associated Method Blank	Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Oct-98

Client:	Philip Environmental	Client Sample Info:	Williams Production Pits
Work Order:	9810066	Client Sample ID:	Jicarilla 93 #10 Bottom
Lab ID:	9810066-02A	Matrix:	SOIL
Project:	18684 7000.77	Collection Date:	10/21/98 11:15:00 AM
		COC Record:	C2309

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	620	25		mg/Kg	1	10/29/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	1700	180		mg/Kg	1000	10/28/98
BTEX		SW8020A				Analyst: DC
Benzene	1800	1000		µg/Kg	1000	10/23/98
Toluene	53000	2000		µg/Kg	1000	10/23/98
Ethylbenzene	12000	1000		µg/Kg	1000	10/23/98
m,p-Xylene	120000	2000		µg/Kg	1000	10/23/98
o-Xylene	29000	1000		µg/Kg	1000	10/23/98

Qualifiers:

PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
B - Analyte detected in the associated Method Blank	Surr: - Surrogate

Chain of Custody Record

(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 2309

[illegible]

Received By:

Received By:		Date		Time	
Margaret Hillman	10/22/98	10/23/98	09:15		
James Hillman	10/23/98	10/23/98	09:20		

Samples Iced: ☐ Yes ☐ No		Carrier:	Airbill No.
Preservatives (ONLY for Water Samples) ☐ Cyanide Sodium hydroxide (NaOH) ☐ Volatile Organic Analysis Hydrochloric acid (HCl) ☐ Metals Nitric acid (HNO ₃) ☐ TPH (418.1) Sulfuric acid (H ₂ SO ₄) ☐ Other (Specify) _____ ☐ Other (Specify) _____			
Shipping and Lab Notes:			

10/19/98

JIC 93 #10 18684 7000.77

Arrived at 0800 TOOK Rabbit
to his TRACTOR Fuel it and
went to location SPIKE had
just arrived He had to pick
up Mike Moulder with onsite
up at the BUS station at 0630
we arrive at site at 0815 we
pulled fence down and start excavating.

at 0830 Initial Reading on pit

was 2999 ppm I took another

Reading at 15' it was still

2999 ppm this was at 0845

I talk Robert I told him my plan
about this other loader about pushing

IN the over Burden & Hauling Soil

IN the morning I ~~ask~~ ^{ask} him

to talk to Don about Hauling the

92 #4 Because when we finished

with the JIC 93 #2 I wanted to

move to that location and start

Hauling on it

I clean Toxic Rse then ~~calibrated~~ ^{calibrated}
it

ZERO - OK

Gas - ISOBUTYLENE - 100 ppm

Cal - 100

checked 100 100 100

took

I took a Reading on the west
Well at 10:00 it was 260 ppm
at 15' ~~it was 9150~~ took a Reading
on the Bottom Here it was 2500 ppm
we dug over another Bucket wider and
it clean up with Reading of 0.0 ppm
at the wall about 2' off the
Bottom I told Him to go over
1 more Buck on the wall and put
it as over Burden I then check
the Bottom it was 65 ppm this
will be the west wall I took
a measurement at 11:30 it was
 $17 \times 27 \times 16 = 272 \text{ Yd}$

I took Reading on East wall at same
time they were 0.0 ppm at 13' and
at 15' it was 1576 ppm
we moved over about 2 Bucket wide
and took Reading the Bottom is
still Hot at 17' with Reading of 1400
ppm the south wall is clean on
Each End But the middle is still Hot
with a Reading of 1545 ppm about 15' deep
we are going to have to bench this
~~location~~ pit also we moved the tank
and unhooked the drain line from the
separator

10/19/98

I went over to check the J.C
92#9 The Land Farm is starting
to come back down in pieces I
talk to Robert ~~and ask~~ ^{and ask} him for
a water TRUCK in the morning
He Harte arrived at 1415 with the
L120 Loader ~~we~~ took SPIKE to
the 93#2 to start pushing over
Burden Beck in the pit

The loader had about ladder on
the left side some point knock
off the back and it had 291.6
Hours the driver left at 1440
and SPIKE started pushing soil
we excavated a total of 360 Yds

I took more Reading on the South
Wall it is clean in the Southwest
corner the middle has a Reading of
49.5 about 2" off the bottom on
over it is still Hot I told Steve
to straighten up his well and see
if that was enough

I talk to Terese with Anne to have
some one at the Land Farm in the
morning she said that would be their
at 0800 in the morning

I also talk to BOB with intent
He said he would have TRUCK
I shut down the EVUATING CREW AT
1530 TO PUT FENCE UP AND FUEL
& GREASE THEY LEFT AT 1600
I went over where SPIKE WAS WORKING
WE LEFT AT 1740

10/20/98

IL 93#10 7000 .77 18684
Arrived at the 93#2 No TRUCK
were Here I Drove Down to
it 42 the 9 were sitting there
it told them where to go and
went up to the ~~other~~ 93#7 and
got my Excavation crew going
and Rabbit going over to the 92#9
where the water truck was sitting
After that I led the TRUCK
to the Landfarm and came
Back

I started running trackhoe when I
got back to location
Steve had dug a ~~hole~~ ^{Slope} ON the South
Side He went down to Rock ~~at~~
which is at 23' deep I took a
Reading on this wall ~~to~~ ^{at} 150 it was
150ppm about 2' off the Bottom
I measured pit at 1230 we had
about 860 Yd I told Ron we
started hauling at 10:30 Hesidok
is also going to send Mike Moulder
home to nite

We were Rained out and went home
11:00

JIC 93#10 7000 18634 ?? 10/21/98
TRUCK started arriving at 0745
spike started loading

Rabbit was going to the JIC 93#5
1st then go to the 92#12#15#7
and turn them then I am going
to sample them

I start excavating on North
wall the initial Reading on this
side was 1159 at Bottom I started
excavating again

I took another Reading in the
Northeast corner at 0940 it was
117 ppm I finished cleaning it

out and took another Reading
over another bucket wide it was
58 ppm I then cleaned up the
middle of and the North West
corner the middle was 18 ppm and
the corner was 0.0 ppm

I started sampling at 1030
the wall were

North wall 3.0 ppm

South wall 86 ppm

East wall 44.3 ppm

West wall 15 ppm

Bottom 1521 ppm

Composite 92 ppm

sample time
1115

total yard of pit 1076
we start filling in ramp and
spreading land from I left Steve
on location at 1315 I went
to the chuck on spike he was
doing fine I then went to
the TIC 92#15 and checked
land from it is still hot in
places with reading of 200 to
400 ppm I left there and
went to the TIC 92#12 and
check that land from I got
some reading from 0 to 65 I
went ahead and sampled it time
1400 I went from there to the
TIC 92#7 and check it it was
0 everywhere I check I heat
both of them up and the needsack
was 25 ppm on the #12 and
0 on the #7
I left there and don with dog
call he said he hadn't had any
truck for awhile I drove to
the land farm there was no
truck so I drove up to
where spike was he said they
-at to town because it was

Muddy at the LANDFARM I call
Don and told him they had shut
down He said OK

He Charge me 6 HR on the 950
and 5 HR on the 936

the TRUCK Hauled a total of
660 Yd of Contaminated soil and
620 Yd of Backfill 1 TRUCK we
didn't get paper work on

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

SUBMIT TO: EPA
NATURAL RESOURCE DEPT
AND LOCAL GOVT ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: WILLIAMS PRODUCTION COMPANY Telephone: 918-561-6250
Address: P.O. BOX 3102, MS 37-4 TULSA, OK. 74101
Facility or Well Name: JICARILLA 93#10
Location: Unit or Qtr/Qtr Sec L Sec 32 T 27N R 3W County RIO ARriba
Land Type: JICARILLA APACHE RESERVATION

Date Remediation Started: 10/19/98 Date Completed: 11/13/98
Remediation Method: Landfarmed X Approx. cubic yards 1076
Composted
Other

Depth To Groundwater: (pts.) 0
Distance to an Ephemeral Stream (pts.) 0
Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0
Wellhead Protection Area (pts.) 0
Distance To Surface Water: (pts.) 0

RANKING SCORE (TOTAL POINTS): 0

Final Closure Sampling:

Sampling Date: 11/13/98 Time: 0830

Sample Results:

Field Headspace (ppm) 1689
TPH (ppm) 1040 Method 8015
Other BTEX METHOD 8020

31.66 (PPM)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 11/19/98 PRINTED NAME ROBERT THOMPSON
SIGNATURE Robert Thompson AND TITLE PROJECT MANAGER

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO (REASON) Cannot use as backfill.

SIGNED: Karina S. Colado DATE: 11/23/98

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 18-Nov-98

Client:	Philip Environmental	Client Sample Info:	William Production Pits
Work Order:	9811053	Client Sample ID:	Jicarilla 93 #10 Landfarm
Lab ID:	9811053-01A	Matrix:	SOIL
Project:	18684 7000.77	Collection Date:	11/13/98 8:30:00 AM
		COC Record:	C2310

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	920	25		mg/Kg	1	11/18/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	120	9		mg/Kg	50	11/17/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	100		µg/Kg	100	11/18/98
Toluene	1900	200		µg/Kg	100	11/18/98
Ethylbenzene	760	100		µg/Kg	100	11/18/98
m,p-Xylene	24000	200		µg/Kg	100	11/18/98
o-Xylene	5000	100		µg/Kg	100	11/18/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surrogate

Chain of Custody Record

(505) 326-2262 Phone
(505) 326-2388 FAX

ESSENTIAL

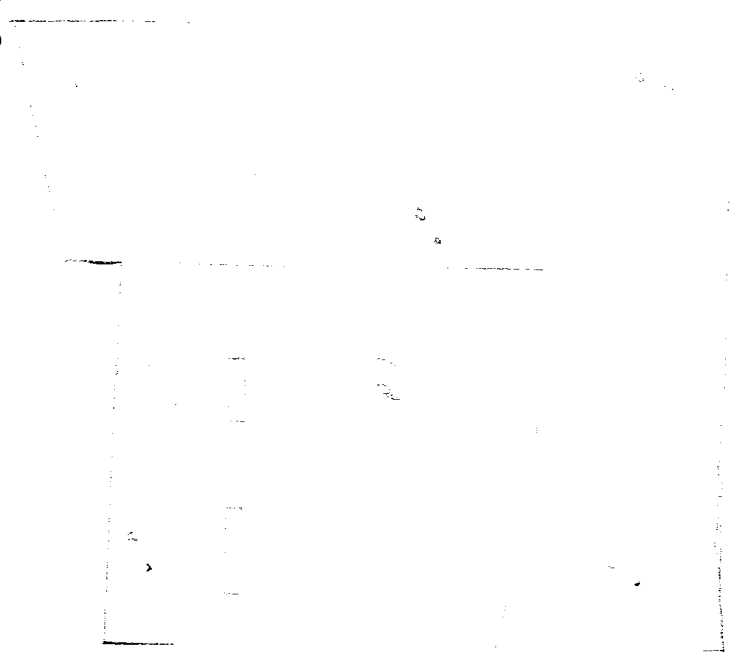
Relinquished by:

Signature	Date	Time	Signature	Date	Time
Murf Allison	11-13-98	1950	A. P. P.	11/16/98	1034
James P. P.	11-16-98	1050	J. P. A.	11/16/98	1050

Samples Iced: ☐ Yes ☐ No		Carrier:	Airbill No.
Preservatives (ONLY for Water Samples)		Shipping and Lab Notes: <i>RUSH SAMPLE</i>	
☐ Cyanide Sodium hydroxide (NaOH)			
☐ Volatile Organic Analysis Hydrochloric acid (HCl)			
☐ Metals Nitric acid (HNO ₃)			
☐ TPH (418.1) Sulfuric acid (H ₂ SO ₄)			
☐ Other (Specify) _____			
☐ Other (Specify) _____			

JIC 93#10 7000 - >>

Drove to Location at 0830 so I
could get up the hill before it got
bad the pid didn't pickup and thing
because of the cold and the mud



The Heated Head Spall was 1689 PPM