

DEPUTY OIL & GAS INSPECTOR

FEB 6 1944

SCHMIDT COPY 14

NATURAL RESOURCE UNIT

AND OIL & GAS ADMINISTRATION

Approved _____
PITRE

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 #2

Location: Unit or Qtr/Qtr Sec A Sec 34 T27N R3W County RIO ARriba

t Type: Separator___ Dehydrator X Other_____

Land Type: JICAZILLA APACHE RESERVATION

t Location: Pit dimensions: length 16', width 16', depth 3'.

מחלוקת

Reference: wellhead____, other_____

Footage from reference: _____

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

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

distance to an ephemeral stream
no 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 (for ungulate lakes, playas and stock or wildlife watering ponds)

Less than 100 feet	(10 points)
Greater than 100 feet	(0 points) <u>0</u>

Uphead Protection Area:
Is than 200 feet from a private
residential water source, or: less than
20 feet from all other water sources)

Yes (20 points)
No (0 points) 0

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

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8/25/98 Date Completed: 11/5/98

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

Other _____

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

General Description of Remedial Action: MATERIAL TRUCKED OFFSITE TO JICARILLA LANDFARMS FOR LANDFARMING

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location _____
Closure Sampling: JICARILLA 93#2
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 30' + SIDEWALLS
Sample date 9/4/98 & 11/5/98 Sample time 1455 & 1605

Sample Results

	BOTT.	SIDES		
Soil: Benzene	(ppm)	<u>.140/ND</u>	Water: Benzene	(ppb) _____
Total BTEX	(ppm)	<u>15.97/ND</u>	Toluene	(ppb) _____
Field Headspace	(ppm)	<u>599/0</u>	Ethylbenzene	(ppb) _____
TPH	(ppm)	<u>178/ND</u>	Total Xylenes	(ppb) _____

Groundwater Sample: Yes _____ No X (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 11/19/98 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 X NO _____ (REASON) Complete backfill. Conditional closure on 10/23/98
SIGNED: Karena X. Colorado DATE: 11/23/98 reason for continued excavating was required for east wall clean up.

Date Remediation Started: 8/25/98 Date Completed: 9/4/98

Remediation Method: Excavation X Approx. cubic yards 8000

(Check all appropriate sections)

Landfirmed X

In situ Bioremediation _____

Other _____

Remediation Location: Onsite X Offsite _____

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

General Description of Remedial Action: ON-SITE LAND FARMING

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location _____

Closure Sampling: JICARILLA 93#2

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

Sample depth 30' + 3 SIDE WALLS

Sample date 9/4/98 Sample time 1455

Sample Results

BOTT. 3 SIDES

Soil: Benzene (ppm) .140/ND Water: Benzene (ppb) _____

Total BTEX (ppm) 15.970/ND Toluene (ppb) _____

Field Headspace (ppm) 599/0 Ethylbenzene (ppb) _____

TPH (ppm) 178/ND Total Xylenes (ppb) _____

* NOTE

- Excavation NOT complete - No room on site. Request backfill of clean side of pit with clean backfill + transport impacted soil to landfarm + then continue excavating.

Groundwater Sample: Yes _____ No X (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 10/22/98 PRINTED NAME Don Fernald

SIGNATURE [Signature] 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) Conditional - can backfill on clean sides of pit

SIGNED: [Signature] DATE: 10/23/98 continue excavating.

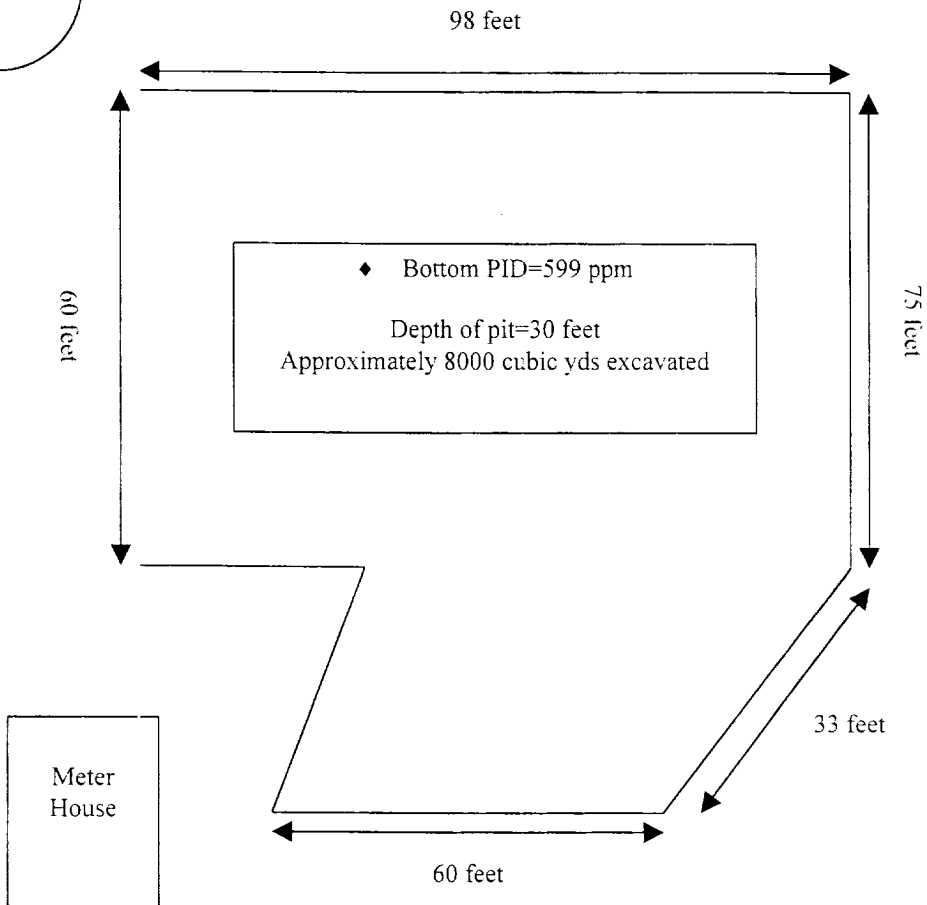
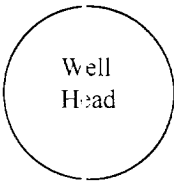
Drawing not to scale.

X=Wall Samples

◆=Bottom Sample



- Wall Samples Collected on 9/2/98
- Bottom Sample Collected on 9/4/98:
30 feet bgs



Jicarilla 93 #2

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT**Date:** 10-Sep-98

Client:	Philip Environmental	Client Sample Info:	William Prod. Pit
Work Order:	9809006	Client Sample ID:	Jicarilla 93-2-S1
Lab ID:	9809006-01A	Matrix:	SOIL
Project:	18684 9200-02	Collection Date:	9/2/98 1:40:00 PM
		COC Record:	C2296

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/4/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	9/3/98
BTEX		SW8020A				Analyst: HR
Benzene	ND	1		µg/Kg	1	9/3/98
Toluene	ND	2		µg/Kg	1	9/3/98
Ethylbenzene	ND	1		µg/Kg	1	9/3/98
m,p-Xylene	ND	2		µg/Kg	1	9/3/98
o-Xylene	ND	1		µg/Kg	1	9/3/98

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 - Surrogate

Chain of Custody Record

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

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Steve Archuleta	9-2-98	1550	[Signature]	9/2/98	1550

Samples Iced: ☒ Yes ☐ No		Carrier: Shipping and Lab Notes:	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)			

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT**Date:** 18-Nov-98

Client:	Philip Environmental	Client Sample Info:	Williams Prod. Pits
Work Order:	9811031	Client Sample ID:	Jicarilla 93 #2 East Wall
Lab ID:	9811031-01A	Matrix:	SOIL
Project:	18684 4500.77	Collection Date:	11/5/98 4:05:00 PM
		COC Record:	C2321

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	11/16/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	11/6/98
BTEX		SW8020A				Analyst: HR
Benzene	ND	1		µg/Kg	1	11/7/98
Toluene	ND	2		µg/Kg	1	11/7/98
Ethylbenzene	ND	1		µg/Kg	1	11/7/98
m,p-Xylene	ND	2		µg/Kg	1	11/7/98
o-Xylene	ND	1		µg/Kg	1	11/7/98

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

ENVIRONNEMENT A

Relinquished by:

Samples Iced:

Preservatives (ONLY for Water Samples)

Shipping and Lab Notes:

Airbill No.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	Philip Environmental	Client Sample Info:	Williams Production Pits
Work Order:	9809017	Client Sample ID:	Jicarilla 93-2 Bottom 30ft.
Lab ID:	9809017-01A	Matrix:	SOIL
Project:	18684 9200.02	Collection Date:	9/4/98 2:55:00 PM
		COC Record:	C2293

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	28	25		mg/Kg	1	9/21/98
GASOLINE RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C6-C10	150	18		mg/Kg	100	9/14/98
BTEX		SW8020A				Analyst: HR
Benzene	140	100		µg/Kg	100	9/17/98
Toluene	530	200		µg/Kg	100	9/17/98
Ethylbenzene	1200	100		µg/Kg	100	9/17/98
m,p-Xylene	13000	200		µg/Kg	100	9/17/98
o-Xylene	1100	100		µg/Kg	100	9/17/98

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 - Surrogate

1 of 1

Chain of Custody Record

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

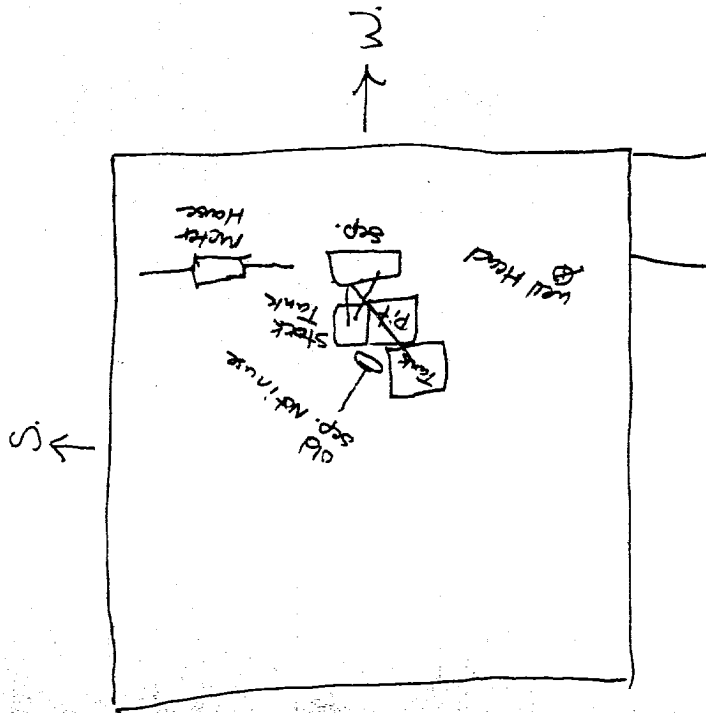


Relinquished by:			Received By:		
Signature	Date	Time	Signature	Date	Time
<i>Steve Archibald</i>	9-4-98	1735	<i>James [Signature]</i>	9-10-98	0855
<i>Francis [Signature]</i>	9/10/98	0912	<i>Herde [Signature]</i>	9/10/98	0910

PE-176 4/95

Williams Prod.
Tic. 93 No. 2

Tank sitting on east side of pit
with 1" line going directly over pit
Needs to be disconnected.
Stock tank south of pit
Sep. west of pit.
Room for landfarm east of pit.



8/25/98

Jicarilla 93 #2

11X9X2 origal pit size

we start the pit at 1458

we dug till 1540 then Ron came
up and told us the his boss ^{proy.} said we
~~had~~ had to move the equipment
or be ran off.

After we finish fueling and offed
started home I called Mike and let
him know what was going on. He
told us to call Don. But we couldn't
get a hold of him. He said we
would call Martin and have him
call William in Oklahoma. We
got back to the shop at 1740 ~~5~~

8-26-98

Tue 93 No. 2

9670

- Got to shop at 6:00. Talked to Morgan about what was going on with Williams
- Talked to Carolyn and decided to wait for Fernald to see what to do about contacting Sturgis with Williams
- Don called, he said to go ahead and go out and go to work. He said he had a call into Sturgis and he would take care of the problem.
- Called Ron Valdez told him we would be late getting out there to dig. He said that he would have the equipment moved off location by the time we got here and we would be able to dig.
- Arrived on location at 9:30 most of equipment was moved talked to Ron and he said he would the rest moved in just a little while.
- Morgan began digging at ~~10:15~~ ^{10:30} South wall had old tpost sticking out of it at about 6 ft.

8-26-98

- 19ft east from center of pit we hit a another pocket at ¹⁰⁵⁰ ppm contamination that came up to 2ft from surface. Ask Ron Valdez he said there used to be another old pit where main tank used to run into. This area was directly under where tank was before removal earlier this morning.

- 12:00 Stopped for lunch measured hole

$$22 \times 35 \times 18 = 513 \text{ yrd}^3$$

- 12:30 started Hourly RATE
- 3:15 dug test hole 55ft west of existing pipeline that runs from well head to meter house. Dug 20' PIP read 0.0 ppm. Dug up clean looking sand.
- Shut down at 3:30. Put up fencing.
- Got back to yard at 5:45, got fuel and left at ~6:10.
- Dug between 1200 to 1500 yds out of pit.

8-27-98

- Jicarilla 93 No. 2
- Still on hourly rate (9200.02)
- Arrived on location at 8:00
- Morgan began by digging out ramp on south side of pit - to get to contamination
- Dug out ramp and got down inside to dig out to 30'. Morgan dug for a while and he got to 27'. Have said it would be a good idea if ~~be~~ Morgan stripped out lines and buy a bench on west side so that the whole wall would not cave in with the line.
- Morgan stripped out lines, cut them and pulled them out.
- Stahle called asked if maybe we could work over the weekend to try to get these pits done.
- He said to talk to Ron Valdez and make sure it was O.K.
- Talked with Ron he said it was fine with him to work over the weekend but he would have to ask his boss, so he went the their office to ask.
- ~~Came back~~ Ron came back and said that his boss told him to

to tell us that my boss would have to call Ron's boss ask them directly. Need to talk to Mike Jukes or Fred Link.

- Talked to Carolyn she said she would get a hold of Don Fernald and Martin so they could call Jukes or Fred Link or Sturgis.

- Talked to Mike Stahle again

he said he would call Carolyn and try to get some answers about working over the weekend

- Talked to Dave Brown about getting Celso to work on Friday and bringing the L90 over to our location this evening.

- Celso arrived a on location with
● L90 at 4:45. We then shut down and put up fence and fuel & greased eq.

- Got back to yard at 6:45.

13 hrs

6-28-98

Jic. 93-2

- Arrived at location at 8:05
- Ron Valdez and Marceano from Williams were both on location.
- Kept digging on pit.
- Had L90 & 928 moving dirt while Morgan dug.
- Took lunch at 12:00.
- Morgan dug after lunch, hoe was sitting down in hole while Celso & L90 made ramp to get down in hole to take out contamination that Morgan dug out of bottom of hole.
- Have relayed contamination into stock pile that Celso took out of hole.
- Sent Celso back to PNM pits at 3:00.
- Put up fencing then left to pick up Celso at 3:45 while Hare & Morgan put up ~~fence~~ rest of fence, fueled & greased equipment.
- Got back at 5:45.

8-31-98

Ticarrilla 93#2

- Got to yard, had meeting with Mike Stahle then talked to Don Fernald about what was going on with Williams pits.
- He said Sturges would be out on 9/1 to meet with all of us out in field. I also talked a little bit with Sturges and told him what the situation was with the pit we were digging on.
- Measured pit to get estimate on ~~about~~ how many yards we had dug for.
- Top level $74' \times 60' \times 16' = 2631$ yds.
- Bottom level $49' \times 39' \times 15' = 1064$ yds
3692 yds total.
- Ate lunch at 12:00
- Went back to work and worked on east wall.
- One called location 93#4 for landfill use.
- Need another loader and trucks to haul off contaminated soil.
running out of room for stockpiles.

9-1-98

Jic 93 #2

- Got to location started by digging out more contamination on southeast wall.
- Keith Manuel^(Jic) and people from Williams showed up on location
- Martin & Storie came also.
- Ate lunch then ~~talked~~ Martin & Don talked to Fred Link & Mike. Jukes about moving equipment off location to be able to dig contamination.
- Martin said we would do it, even though it is not in the contract. Verbal agreement.
- Williams had JVI come out with back hoe to dig out 4" line from location above this one.
- JVI stripped out half then I started to strip out other half to the south all the way to dog leg.
- Finished pulling back ramp to get down in hole.
- Pulled back east wall so it would not cave in.

9-2-98

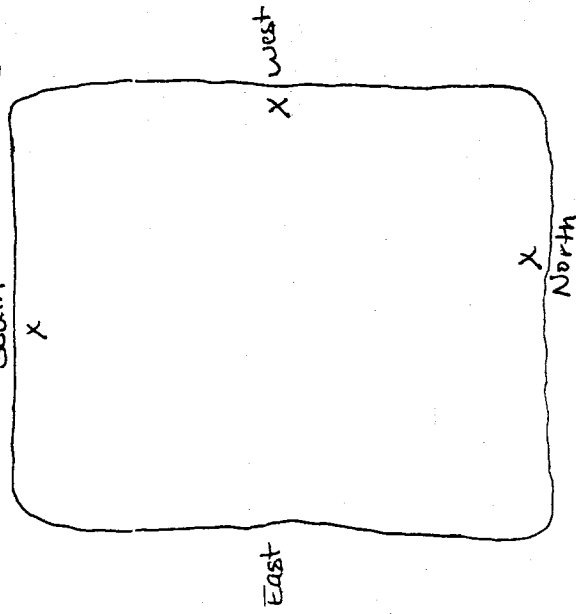
Jic 93 #2

- Arrived at location at 8:00, got together with Morgan. Have to see how we could dig rest of pit. Thought maybe we could start backfilling west wall so we could have more room.
- Talked with Fernald about doing this then he said he would make some phone calls and he would get back with me to see if we could.
- Morgan started by moving some of the stock piles.
- Talked with Fernald again said he had left a message with Keith & Sturgie. He said to go ahead and take the samples in but they wouldn't be done until Friday.
- Measured hole
$$\begin{array}{r} \text{Top } 74' \times 60 \times 16 = 2631.1 \\ \text{Bottom } 72' \times 54 \times 15 = 2160. \\ \hline 4791.1 \text{ yds} \end{array}$$
- Took samples from south, west and north wall and took them to the Lab. Did composite of those samples. Headspace reading was 0 ppm.

9-2-98

Jic. 93-2

- Spots ~~where~~ ^{where} samples were taken. 20' below surface.



- Took samples into On-site, the guy there said they would be done by Friday or Monday.
- Talked with Don and he said that we did not need to take in the samples for the Jicarilla 93-2.
- He also said we need to get 2 different samples, one off the side walls and then another separate sample off the bottom of the pit.
- Labeled sample that was taken from ³ side walls on Jic. 93-2 as Jic. 93-2 - S1

9-3-98

Jic. 93-2

- Got to location at 7:45. talked to Ron Valdez he said that we would not be around to much today because he needed to go to Farmington to take some pictures.
 - Talked with Don about not cancelling the sample for 93-2 so that we could have results done on those three walls. When he talks to Keith Munwell so we can backfill that side of pit to make more room to stock pile more contamination.
 - ~~He said~~ Don said that was fine.
 - Took more pictures of pit. also took pictures of 93-5 before we start digging on pit.
 - 1230 we went back to Jic. 93-12 to get sample out of bottom of pit. Got sample at 22'
 - Head space was reading 3.3ppm
 - Put sample in cooler with ice.
 - Measured pit
- | | |
|------------------------------|----------|
| Top: 98 x 75 x 16 | 4355 yds |
| Bottom 98 x ⁹⁷ 15 | 3647 yds |
| | 8002 yds |

9-3-98

Jic. 93-2

- Went to Indian I#1 to get sample off the bottom of pit. Ran headspace PID read 0.0. Got composite sample at three points on bottom. Put sample in cooler on ice.
- Talked to Dave Brown to get another loader for tomorrow. He said he would send Theo over with a loader at 3:00.
- Theo got to location at 4:30, then we shut down for the day, greased and fueled then ~~to~~ drove to yard. Got to yard at 6:45.

9-4-98

Williams Prod. Jic. 93-2

- Got to yard at 5:45, turned in Blue sheets to Carolyn - Got diesel at Phillips 66 in front of shop.
- Got to location at 7:50 started on east well, had one loader taking out contamination out of pit while other loader stockpiled contaminated soil.

320 - 4056 Keith Manwell

- Measured stock piles of clean backfill material at pond over hill from Jic. 93-2.

Acme (Jicarilla Landfarm)

Theresa Simpson 632-7379

~~Landfarm~~ 3 miles N 18 J25

- Measured distance to TNT landfarm
- Jicarilla Landfarm
- TNT 11.5 from location.

Jicarilla 16.1 miles

15.2 Hwy 1910 dirt rd.

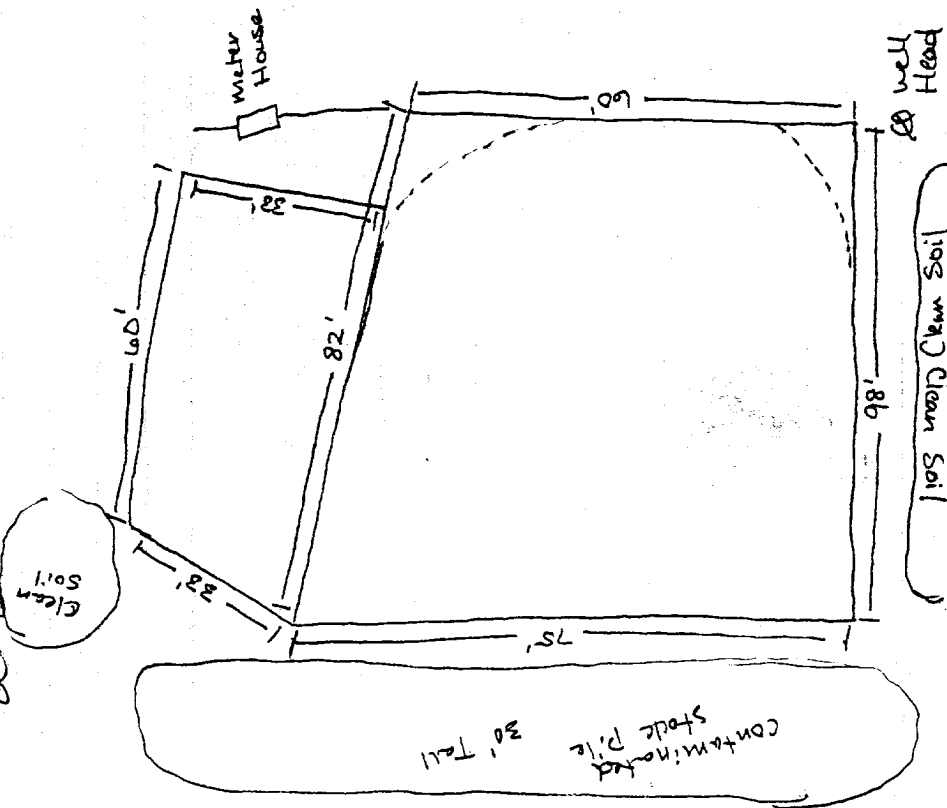
- Talked with Don he said to call Theresa Simpson at Acme and that I needed to tell her we needed to cancel moving contamination over to the Jic. Landfarm until we

- could see who was cheaper to haul to.

- Picked up Theo at PNM pit then we drove back to Farmington.

- Got sample off of bottom of pit Jic 93²
Did composite sample.

Headspace on bottom was 599ppm
at 30'



$$\begin{array}{r} 75 + 60 \\ \quad \quad \quad 93 + 82 \\ \quad \quad \quad \quad \quad 90 \\ \hline 67.5 \end{array}$$

$$67.5 \times 90 \times 30$$

$$182250$$

$$33 \times 60 \times 12 = 23760$$