

RELEASE 11-29-93 DHC



OIL CONSERVATION DIVISION
RECEIVED

Texaco Exploration and Production Inc

3300 N Butler
Farmington NM 87401

NOV 10 AM 9 49

November 8, 1993

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
PO BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504

Attention: Michael E. Stogner
Chief Hearing Officer/Engineer

RE: **Application for Exception to NMOCD Rule 303-A: Downhole Commingle**
L.L. McConnell No. 1 Section 30-T25N-R3W, NMPM, Rio Arriba County, NM

Dear Mr. Stogner:

Texaco respectfully requests administrative approval to downhole commingle the Blanco Mesa Verde Gas Pool and the West Lindrith Gallup-Dakota Oil Pool within the referenced well. The request is based on offset performance and the expected performance of the Mesa Verde in the subject well. Please accept the attached information in your consideration of this matter. All offset operators were notified of the request by Certified Mail and were sent a copy of the supporting information.

If you have any questions concerning this matter please contact Mr. Rached Hindi at (505) 325-4397, ext 15. Your attention to this matter is greatly appreciated.

Sincerely,

Ted A. Tipton
Area Manager

rh

Attachments
NMOCD-Aztec
file

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 760

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Conoco, Inc.
7415 E. Main St.
Farmington NM 87402
- 9. Signature (Addressee):
D. Hernandez
- 10. Signature (Agent):
D. Hernandez

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 759

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Petroleum Corp.
190002
Lincoln St.
Denver CO 80203
- 9. Signature (Addressee):
D. Robertson
- 10. Signature (Agent):
D. Robertson

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 758

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Felix J. Hickman (Estate of)
c/o Sunwest Bank of ALB.
Attn: Ms. Catherine E. Rugen
P.O. Box 26900
Albuquerque, NM 87125-6900
- 9. Signature (Addressee):
Anthony Bloom
- 10. Signature (Agent):
Anthony Bloom

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 761

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Gobal
30th
Farmington NM 87401
- 9. Signature (Addressee):
D. Robertson
- 10. Signature (Agent):
D. Robertson

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 763

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Joseph B. Gould
430 South 3rd St.
Las Vegas, Nevada
89101
- 9. Signature (Addressee):
D. Robertson
- 10. Signature (Agent):
D. Robertson

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 * U.S.G.P.O. 1992-307-530

SENDER:

- 1. I also wish to receive the following services (for an extra fee):
 - ☐ Registered
 - ☐ Insured
 - ☐ Certified
 - ☐ COD
 - ☐ Express Mail
 - ☐ Return Receipt for Merchandise
- 2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number: P 081 443 762

4b. Service Type:

- ☐ Registered
- ☐ Insured
- ☒ Certified
- ☐ COD
- ☐ Express Mail
- ☒ Return Receipt for Merchandise

- 7. Date of Delivery: 10/26/92
- 8. Addressee's Address (Only if requested and fee is paid):
Joseph B. Gould
430 South 3rd St.
Las Vegas, Nevada
89101
- 9. Signature (Addressee):
D. Robertson
- 10. Signature (Agent):
D. Robertson

Thank you for using Return Receipt Service.

DATE: Oct. 26, 1993

Application for Exception to Rule 303-SEGREGATION OF PRODUCTION FROM POOLS

D. REQUIREMENTS

- (1) **Name and address of the operator.** Texaco Exploration and Production Inc.
3300 N. Butler Suite 100
Farmington, NM 87401
- (2) **Lease Name, Well Number, Well Location, name of the pools to commingled.**
Lease Name: L. L. McConnell
Well Number: 1
Well Location: 1190' FSL & 1450' FWL,
Section 30, T25N-R3W, NMPM
Rio Arriba County, New Mexico
Pools Commingled: Blanco - Mesa Verde and West Lindrith, Gallup - Dakota
- (3) **A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.**
Attached (Attachments I, II and III)
- (4) **A current (within 30 days) 24-hour productivity test on Division form C-116 showing the amount of oil, gas, and water produced from each zone.**
The C-116 for L.L. McConnell No. 1 Gallup-Dakota production is attached (Attachment IV). No production data exists for the proposed Mesa Verde completion. However, attached (Attachment V) are C-115s showing Mesa Verde production from offsets Lydia Rentz Nos. 7 and 8. The Mesa Verde completion in the L. L. McConnell No.1 is expected to perform similarly to the offsets.
- (5) **A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed well which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)**
L. L. McConnell No. 1 Gallup - Dakota Decline curves attached (Attachment VI).
Mesa Verde - New completion, no production history available. However, Decline curves of offset Lydia Rentz No. 8 and C. W. Roberts Nos. 3A and 6A are attached (Attachments VII, VIII and IX) and the Mesa Verde completion in the L.L. McConnell No.1 is expected to perform similarly to the offsets.
The Mesa Verde Formation will be perforated from 5712'-5714' and 5790'-5800' and stimulated in a single stage as described on the attached Workover procedure (Attachment X). The Mesa Verde interval will be tested to determine volume and pressure prior to commingling. The well will be commingled pending the results of the flow testing.
- (6) **Estimated bottomhole pressure for each artificially lifted zone. A current (within 30 days) measured bottom hole pressure for each zone capable of flowing.**
The Mesa Verde and Gallup-Dakota bottom hole pressure is estimated based on offset performance.
Mesa Verde: 1460 psi (Attachment XI)
Gallup-Dakota: + -800 psi (Attachment XII)
Actual Mesa Verde P_{BH} will be obtained using shut-in testing upon completion.
- (7) **A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore.**
The fluids have no abnormal components that would prohibit commingling, or promote the creation of emulsions or scale. The major components of the produced waters are sodium, chlorides and bicarbonates. Several offsets are commingled in the proposed zones and no production problems have occurred.
- (8) **A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.**

Gallup - Dakota Production		Anticipated Mesa Verde Production	
Oil, BOPD	10	Oil, BOPD	0
Gas, MCFD	45	Gas, MCFD	800
Water, BWPD	1	Water, BWPD	1

The combined production from the Gallup-Dakota and Mesa Verde Formations will be approximately 845 MCFD, 10 BOPD and 2 BWPD. Prior to the workover, the Gallup - Dakota was produced using a rod pump. With the addition of the Mesa Verde production, both completions should flow without aid of the downhole pump.

The mechanics of the wellbore are not conducive to a "dual" completion. The 5 1/2" casing would require a dual completion to consist of pumping the Gallup-Dakota under a packer and flowing the Mesa Verde up the casing-tubing annulus. Pumping the Gallup-Dakota under a packer would be inefficient due to gas locking. Flowing the Mesa Verde up the casing-tubing annulus would be inefficient due to wellbore loading and the inability to swab.
- (9) **A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.**
Monthly production from the West Lindrith Gallup - Dakota Oil pool is proposed to be calculated using the following formula:
where: $Q_2 = Q_1(1-D)^n$ MCFD
 Q_2 = future production rate MCFD
 Q_1 = current production rate MCFD
 D = effective in percent per year, from decline curve
 n = years into the future to Q_2 from Q_1
Oil and water production will be calculated using the existing GLR and GOR of the Dakota Formation. Any oil, gas and water production above what is calculated by the above shall be attributed to the Blanco Mesa Verde Gas Pool.
- (10) **A statement that all offset operators and, in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.**
All offset operators have been notified. Please find attached, signed return receipt cards form each operator.

Certificate No. _____

OIL CONSERVATION DIVISION

ATTACHMENT II

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator TEXACO INC.			Lease L. L. McConnell		Well No. #1
Unit Letter N	Section 30	Township T25N	Range R3W	County Rio Arriba	
Actual Footage Location of Well: 1190 feet from the South line and 1450 feet from the West line					
Ground level Elev. 7249	Producing Formation Mesa Verde		Pool Blanco		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary). _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to best of my knowledge and belief.

Signature

Printed Name

Alan A. Kleier

Position

Area Manager

Company

Texaco Inc.

Date

11-10-89

SURVEYOR CERTIFICATION


I hereby certify that the well location shown on this plat was plotted from field notes, actual surveys made by me or under supervision, and that the same is true correct to the best of my knowledge and belief.

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.

OFFSET OPERATORS
L.L. McCONNELL # 1
SEC. 30 T25N / R03W

R 04 W		R 03 W	
SOUTHLAND ROYALTY	24 CONOCO	TEXACO 19	
	MW PETROLEUM		
SOUTHLAND ROYALTY	CONOCO	TEXACO 30	
	MW PETROLEUM 25	 L.L. McCONNELL #1	
SOUTHLAND ROYALTY	CONOCO	TEXACO 31	
	MW PETROLEUM 36		

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Submit 2 copies to Appropriate District Office.
DISTRICT I
P.O. Box 1900, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

GAS - OIL RATIO TEST

Operator		Pool		County										
TEXACO E & P INC.		LINDRETH GALLUP DAKOTA WEST		RIO ARRIBA										
Address		TYPE OF TEST - (X)		Completion		Special								
3300 NORTH BUTLER FARMINGTON NM. 87401		<input checked="" type="checkbox"/> SCHEDULED		<input type="checkbox"/> COMPLETION		<input type="checkbox"/> SPECIAL								
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU FT/BBL.	
		U	S	T						WATER BBL'S	GRAV. OIL	OIL BBL'S		GAS MCF.
JICARILLA "C"	1	I	22	25N	5W	5-16-92	F	3/4	46	0	0	0	13	-
JICARILLA "C"	26	I	21	25N	5W	5-28-92	F	-	43	0	0	44	2	-
JICARILLA "C"	34	K	22	25N	5W	5-12-92	F	1"	47	.1	0	0	12	-
JICARILLA "C"	35	L	21	25N	5W	5-28-92	F	1"	147	2	45	6	60	10,000
L.L. MCCONNELL	1	N	30	25N	5W	5-14-92	P	-	161	1	43	11	43	3,909
L.L. MCCONNELL	13	N	31	25N	5W	5-14-92	P	-	159	.2	45	8	45	5,625
LYDIA RENTZ	7	C	20	25N	5W	5-14-92	P	1"	164	1	46	8	69	8,625
LYDIA RENTZ	8	C	19	25N	5W	5-14-92	P	-	160	1	45	2	44	22,000
C.W. ROBERTS	3A	L	18	25N	5W	4-28-92	P	1"	172	4	49	5	21	4,200
C.W. ROBERTS	5	F	17	25N	5W	5-4-92	P	1"	180	0	47	4	37	9,250
C.W. ROBERTS	6A	G	18	25N	5W	5-12-92	P	-	181	1	49	5	19	3,800

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Paul D. Berhost
Signature

PAUL D. BERHOST ENGINEER ASSISTANT
Printed name and title

6-9-92 (505) 326-2657
Date

Telephone No.

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

[See Rule 301, Rule 1116 & appropriate pool rules.]

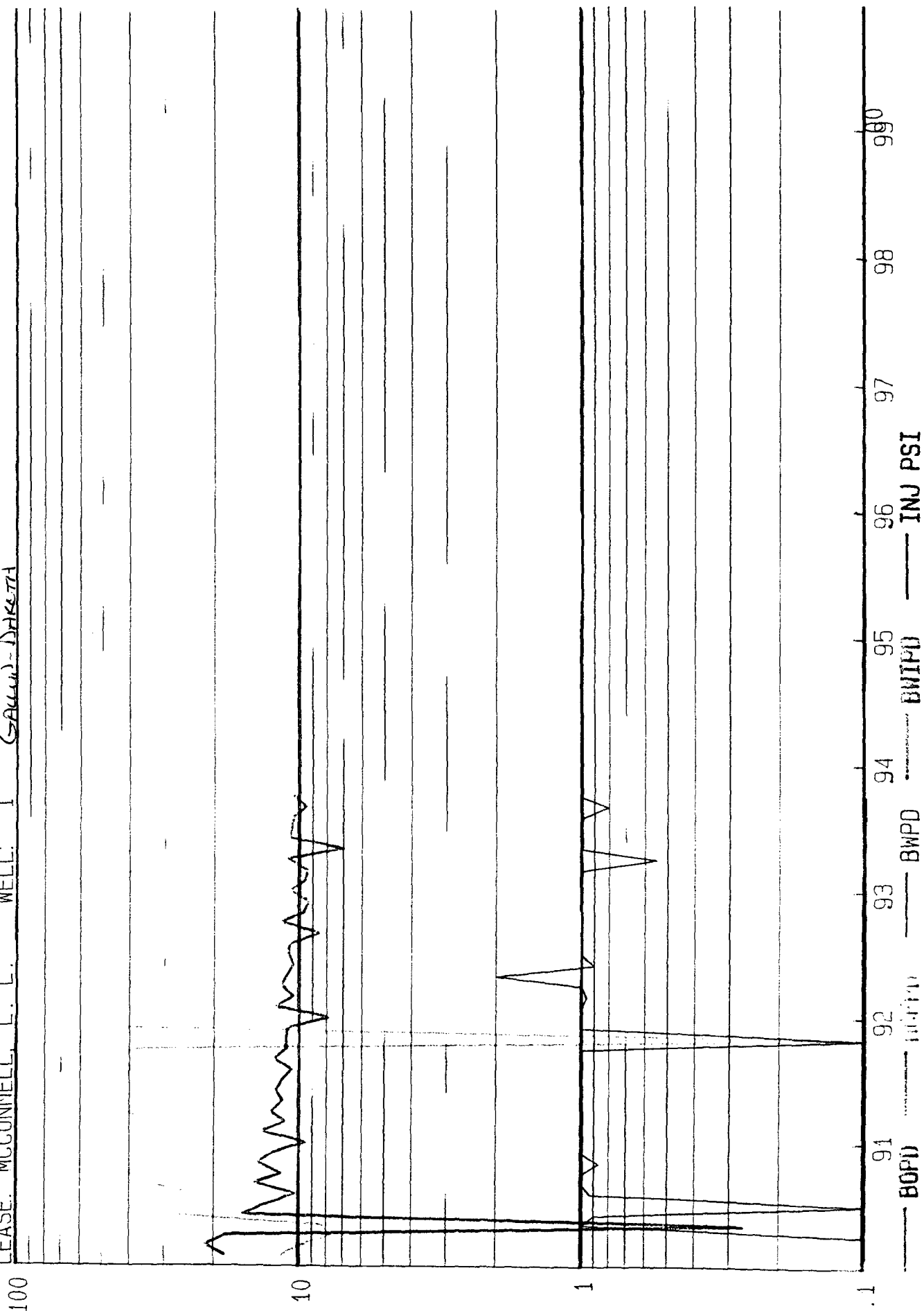
P.O. BOX 2088
Santa Fe, New Mexico 87504-2088

zip

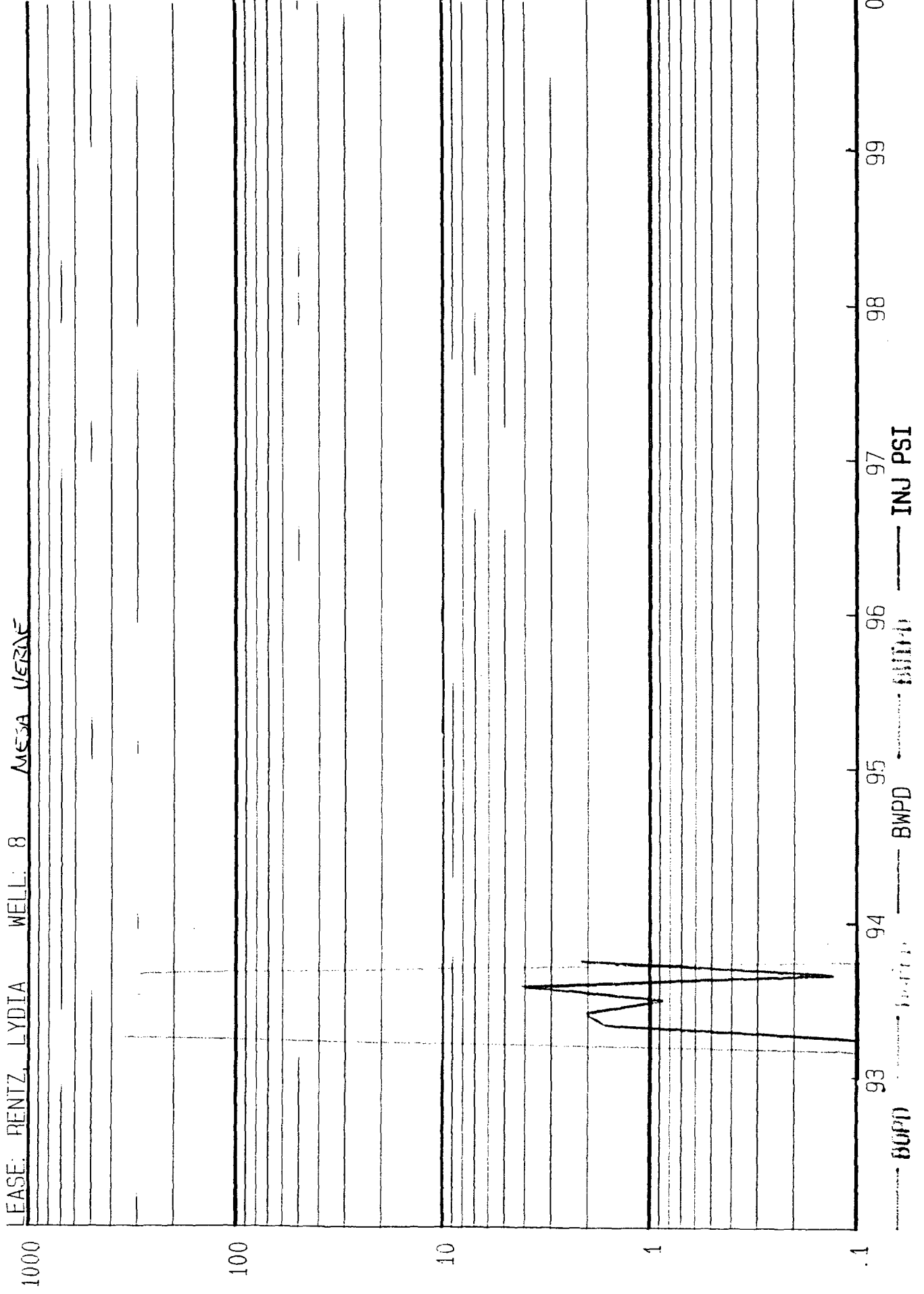
(SIGNATURE)

ATTACHMENT III

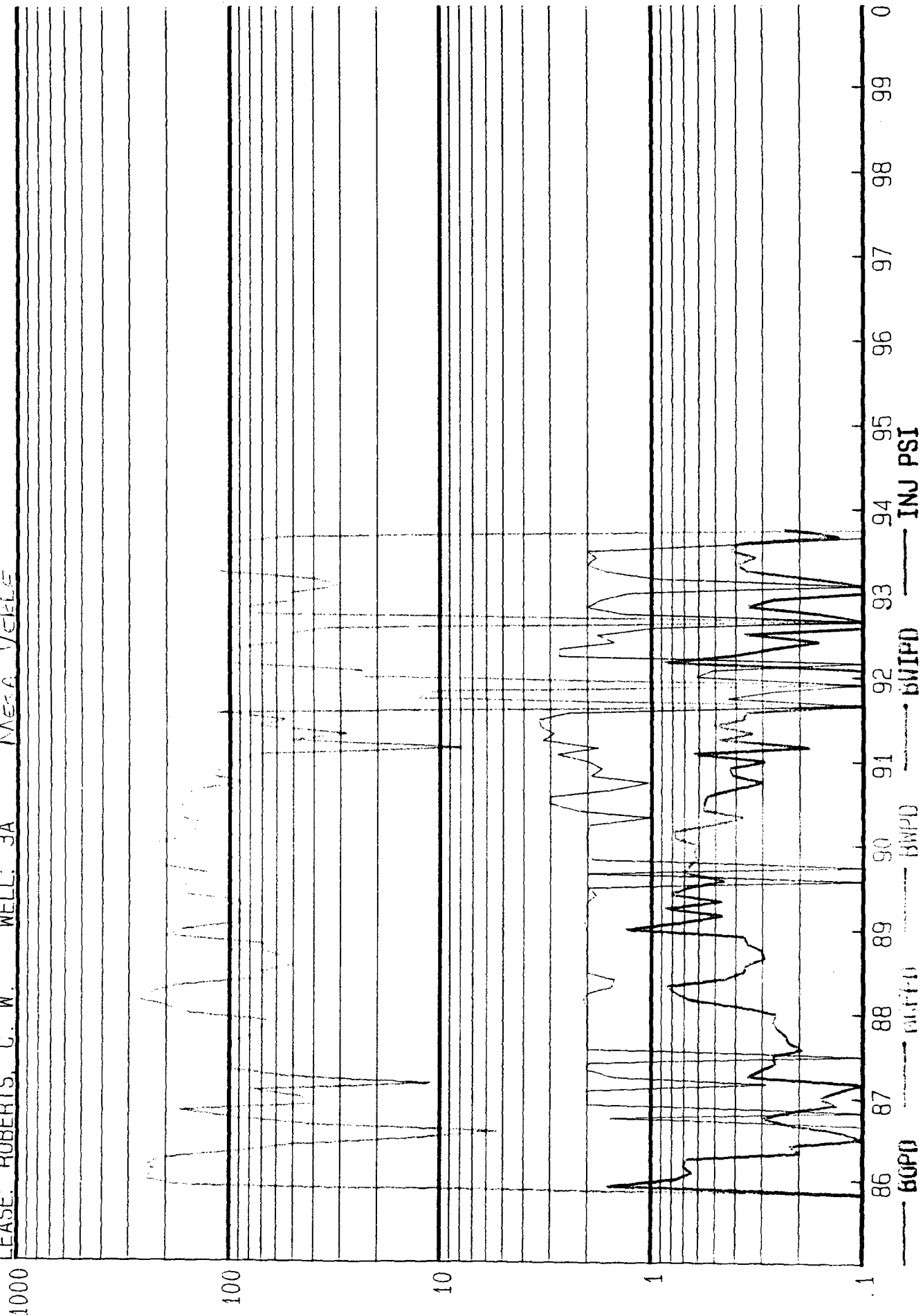
LEASE: MCCONNELL, L. L. WELL: 1 GARDEN-DARETH

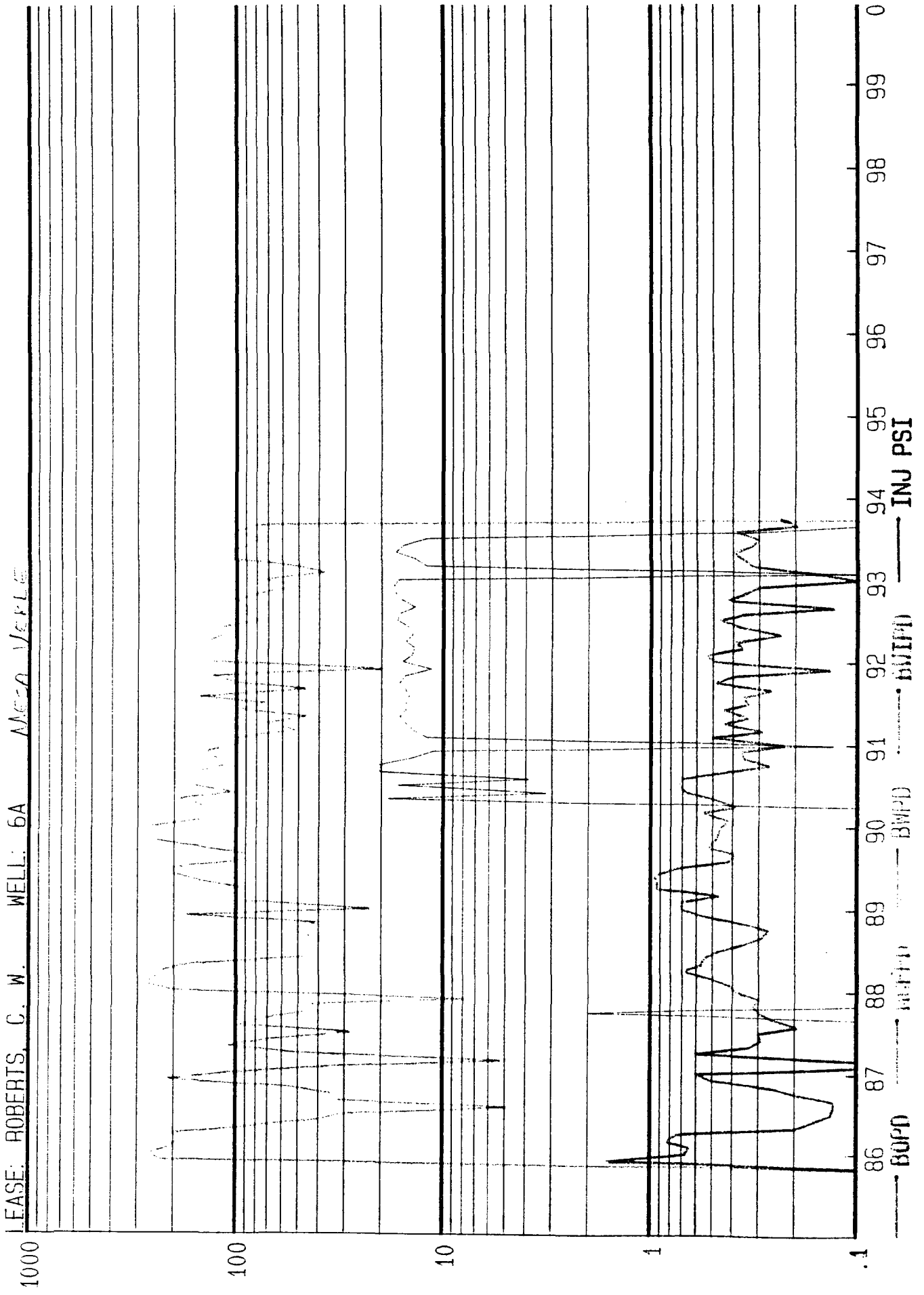


ATTACHMENT III



LEASE: ROBERTS, C. W. WELL: 3A MESA VERDE





Date: 10/20/93

ATTACHMENT I

L. L. McConnell Nº 1
Mesa Verde Workover Procedure

1. MIRUSU, NDWH, NUBOP.
2. POOH w/ Rods, Pump and Tubing.
3. RIH w/ 5-1/2" RBP on 2 3/8" prod TBG to ~6200', set RBP (above GP-DK perms), Load hole and test RBP and CSG to 1000 PSI. POOH w/ TBG.
4. RU wireline and RIH and perf sqz holes (2 spf) @ 5200' and 6100' (No cement across Mesa Verde perforation interval as per the cement bond log). RD wireline. RIH w/ PKR on 2-3/8" TBG, set PKR ~5600' and establish circ between sqz holes. POOH w/ TBG and PKR. (If circ is not obtained, evaluate additional sqz holes)
5. RIH w/ CMT RET on 2-3/8 TBG, set RET @ ~5600, test RET and TBG to CMT circ press. Circ LFL CMT through sqz holes 6100' (circ annular vol + 20%), displace CMT inside TBG to 50' above top sqz hole. Sting out of RET and PUH to ~5000'. Reverse TBG clean and POOH. SDFN, WOC.
6. RIH w/ bit and collars, drill out CMT and RET, test CSG to 1000 psi, evaluate. TOH with bit and collars.
7. TIH with 2 3/8 TBG and raise RBP to 5850'. TOH with tubing.
8. RIH w/ perf gun and perforate Mesa Verde formation using 4 JSPF from 5712'-5714 (4 jspf), 5790'-5800' (4 jspf), POOH, RD wireline.
9. RIH w/ 5-1/2" treating PKR on 3-1/2" workstring, set PKR @ ~5650'. RU Service Company and fracture stimulate perforated interval using 260,000 # 20/40 Brady Sand and 70,000 Gal 25 and 30 # X-Linked Gel. Tail Brady sand with 15,000 # resin coated sand.
10. Shut well in over night to allow resin coating to cure.
11. Flow well back until dead, POOH w/ 3-1/2" TBG. RIH w/ 2-3/8 TBG. Test for Mesa Verde pressure and production rate for commingling authorization. Evaluate for production equipment.
12. If Mesa Verde completion is successful RIH w/ retrieving head on 2-3/8" TBG and POOH w/ RBP @ 5850'. RIH w/ production equipment. If completion is unsuccessful, squeeze Mesa Verde completion and RIH w/ Gallup-Dakota production equipment.
13. NDBOP, NUWH. Set production equipment and return well to production. RDMOSU.

PETRO LOG INC.

(806) 637-4993

P. O. Box 588

Brownfield, Texas 79316

TEXACO EXPLORATION & PRODUCTION, INC.

DATE RUN: 11-5-92

LYDIA RENTZ WELL NO. 8 , *AV*

DATE PULLED: 11-16-92

PRESSURE BUILDUP TEST

BOTTOMHOLE PRESSURE:

TEST DEPTH 5806'

WHEN FIRST REACHED BOTTOM - 976

WHEN FIRST SHUT-IN - 988

<u>TIME SINCE SHUT-IN (HOURS)</u>	<u>PRESSURE</u>	<u>TIME SINCE SHUT-IN (HOURS)</u>	<u>PRESSURE</u>
25.0	1384	150.0	1453
30.0	1389	160.0	1453
40.0	1413	170.0	1454
50.0	1423	180.0	1455
60.0	1428	190.0	1457
70.0	1433	200.0	1457
80.0	1440	210.0	1458
90.0	1441	220.0	1458
100.0	1443	230.0	1458
110.0	1446	240.0	1460
120.0	1448	250.0	1460
130.0	1451	257.0	1460
140.0	1449		

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator TEXACO E & P INC. Lease C.W. ROBERTS Well No. 6

Location of Well: Unit: G Sec. 18 Twp. 25N Rge. 3W County RIO ARriba

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (OIL OR GAS)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	BLANCO MESAVERDE	GAS	FLOW	TBG.
Lower Completion	LINDRETH GALLUP DAKOTA	OIL	FLOW	TBG.

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Completion	Hour, Date shut-in 5-17-92	Length of time shut-in	SI press. psig	Stabilized (Yes or No)
Lower Completion	Hour, Date shut-in 5-17-92	Length of time shut-in	SI press. psig	Stabilized (Yes or No)

FLOW TEST NO. 1

Commenced at (hour, date)*				Zone producing (Upper or Lower) LOWER	
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower completion		
4-20-92					'BOTH ZONES SHUTIN
4-21-92	24 HRS.	598	723	
4-22-92	48 HRS.	680	787	
4-23-92	72 HRS.	700	804	
4-24-92	96 HRS.	705	259		UPPER SHUTIN; LOWER FLOW 24 HRS.
4-25-92	120 HRS.	708	232		UPPER SHUTIN; LOWER FLOW 24 HRS.

Production rate during test

Oil BOPD based on Bbls. in Hours Grav. GOR

Gas MCFPD; Tested thru (Orifice or Meter):

MID-FLOW SHUT-IN PRESSURE DATA

Upper Completion	Hour, Date shut-in	Length of time shut-in	SI press. psig	Stabilized (Yes or No)
Lower Completion	Hour, Date shut-in	Length of time shut-in	SI press. psig	Stabilized (Yes or No)

CUM PRODUCTION AT TEST

31 MBO
282 MMCF



L. L. McCONNELL No. 1

Current Completion

WELL:

L L McConnell No. 1

LOCATION:

1190' FSL & 1450' FWL
Sec. 30, T25N, R3W
Rio Arriba County, NM

ELEVATION:

DF - 7257'

FORMATION TOPS:

Kirtland 3285'
Fruitland 3437'
Pictured Cliffs 3595'
Lewis 5280'
Pt. Lookout 5784'
Gallup 7107'
Dakota 7842'

TOC @ 3000'
2nd Stage

DV Tool @ 3800'

**PROPOSED MESA VERDE
PERFORATIONS:**
5708' - 5790' - 5810'

TOC @ 6515'
(Bond Log)

GALLUP PERFS (1990)
6978' - 7264'
Frac w/ 70,900# SND

DAKOTA PERFS (1990)
7790' - 8040'
Frac w/ 132,500# SND

PBTD - 8200'
TD - 9011'

13-3/8", 48#, H-40 CSG.
Set @ 387'
w/ 500 SKS CMT.
TOC = 0 (Circ.)

2-3/8" Tbg

(1955) Pictured Cliffs 3595'-3665'
(1990) Squeezed

6930'
(1990)
12 Intervals Tested
& Squeezed

8030'

5-1/2", 17#, N-80, 15.5#, J-55 CSG.
Set @ 8170'
w/ 500 SKS CMT.
TOC @ 6515' (Bond Log)

