



Texaco Exploration and Production Inc

3300 N Butler
Farmington NM 87401

5-17-95
1133
OIL CONSERVATION DIVISION
RECEIVED

APR 11 1995
APR 8 1995

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87504

Attention: David Catanach

RE: Application for exception to NMOCD Rule 303-A: Downhole Commingle of
Lydia Rentz No. 7, 800' FNL & 1820' FWL, Unit C, Sec. 20-T25N-R3W,
NMPM, Rio Arriba County, New Mexico

Dear Mr. Catanach:

Texaco Exploration and Production Inc. respectfully requests administrative approval to downhole commingle the Blanco Mesaverde gas pool and the West Lindrith Gallup-Dakota oil pool within the referenced well. Approval of this application will require an exception to Rule 303-A. Please accept the attached information in your consideration of this matter. All offset operators were notified of this request by certified mail (copy of return receipt cards attached).

The subject well is currently dual completed in the referenced pools (see attached "current completion" wellbore diagram - attachment VII-A). The Gallup-Dakota is produces 6 BOPD, < 1 BWPD and 59 MCFD with plunger lift under a packer through a 2-3/8" tubing string. The Mesaverde interval has not produced since 1991. A separate string of 2-3/8" tubing is set in the Mesaverde. We plan to restore production in the Mesaverde interval by perforating additional pay and refracturing. We then propose to downhole commingle the two pools (see attached "proposed completion" wellbore diagram - attachment VII-B). If we continue to plunger lift the well, removal of the packer will provide greater annular storage capacity with greater energy for removal of liquids. If rod pumping becomes necessary, removal of the packer means the lower zone gas will not have to travel through the pump causing poor efficiency and gas locking. Production from both pools will be enhanced with either lift method.

Downhole commingling will not result in reservoir damage, waste of reserves or violation of correlative rights. If you have any questions concerning this matter please contact Mr. Mark R. Reinhold at (505) 325-4397, ext. 19. Your attention to this matter is greatly appreciated.

Sincerely,

Packed Hindi /TAT

Ted A. Tipton
Operating Unit Manager

MRR/s
Attachments
cc: NMOCD-Aztec
file

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Description</u>
I	C-102, Well location and acreage dedication plat - Blanco Mesaverde
II	C-102, Well location and acreage dedication plat - West Lindrith Gallup-Dakota
III	Offset Operators map
IV	C-115, Operator's Monthly Report (W. Lindrith Gallup-Dakota)
V-A	Decline Curve - Lydia Rentz #7 Gallup-Dakota
V-B	Decline Curve - Lydia Rentz #7 Mesaverde
VI	Northwest New Mexico Package Leakage Test - Lydia Rentz #7
VII-A	Wellbore Diagram - Current Completion
VII-B	Wellbore Diagram - Proposed Completion

Application for Exception to Rule 303-Segregation of Production From Pools
Requirements Continued.

- (7) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.

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 individual streams.

<u>Current Gallup/Dakota Prod.</u>		<u>Anticipated Mesaverde Prod.</u>	
Oil, BOPD	6	Oil, BOPD	1
Gas, MCFD	59	Gas, MCFD	235
Water, BWPD	1	Water, BWPD	1

The combined production from the Gallup/Dakota and Mesaverde formations will be approximately 294 MCFD, 7 BOPD, and 2 BWPD.

- (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.

Using our anticipated rates as shown in item #8 as an example, allocation will be calculated as follows:

	<u>Gas</u>	<u>Oil</u>	<u>Water</u>
Mesaverde	235/294=80%	1/7=14%	1/2=50%
Gallup/Dakota	59/294=20%	6/7=86%	1/2=50%

The actual production data obtained prior to and following the commingling process will be presented to the Aztec NMOCD District office to arrive factors for splitting the future production stream.

- (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 from each operator (Attachment VIII). A BLM Sundry (Form 3160-5) has been submitted for approval.

Application for Exception to Rule 303-Segregation of Production From Pools

- (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 be commingled.**

Lease Name: Lydia Rentz
Well Number: 7
Well Location: 800' FNL & 1820' FWL, Unit C, Sec. 20
T25N-R3W, NMPM
Rio Arriba County, New Mexico

Pools to Commingle: Blanco Mesaverde Gas Pool and West Lindrith
Gallup Dakota Oil Pool

- (3) **A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.**

Attached (Attachment I, II, III)

- (4) **A current (within 30 days) 24-hour productivity test on Division C-116 showing the amount of oil, gas and water produced from each zone.**

The C-115 for Lydia Rentz No. 7 Gallup/Dakota production is attached (attachment IV). The Mesaverde completion in the Lydia Rentz No. 7 has not produced since 1991. Additional pay in the Mesaverde will be perforated and the interval will be refractured prior to downhole commingling. Following this workover, we expect the Mesaverde to produce 235 MCFD, 1 BOPD, and 1 BWPD.

- (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 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.)**

Decline curves for the Gallup/Dakota and Mesaverde production from Lydia Rentz No.7 is attached (Attachments V-A, V-B, respectively).

- (6) **Estimated bottomhole pressure for each artificially lifted zone. A current (within 30 days) measured bottomhole pressure for each zone capable of flowing.**

The Mesaverde and Gallup/Dakota bottom hole pressure is estimated based on New Mexico Packer Leakage Test dated 9/94 Lydia Rentz No.7:

Mesaverde: 980 psig (Attachment VI)

Gallup/Dakota: 550 psig (Attachment VI)

Actual Mesaverde P_{BH} will be obtained using shut-in testing upon completion.

All distances must be from the outer boundaries of the Section.

Attachment I

Operator GETTY OIL COMPANY		Lessee LYDIA RENTZ		Well No. 7
Well Letter C	Section 20	Township 25N	Range 3W	County Rio Arriba

Actual Footage Location of Well:

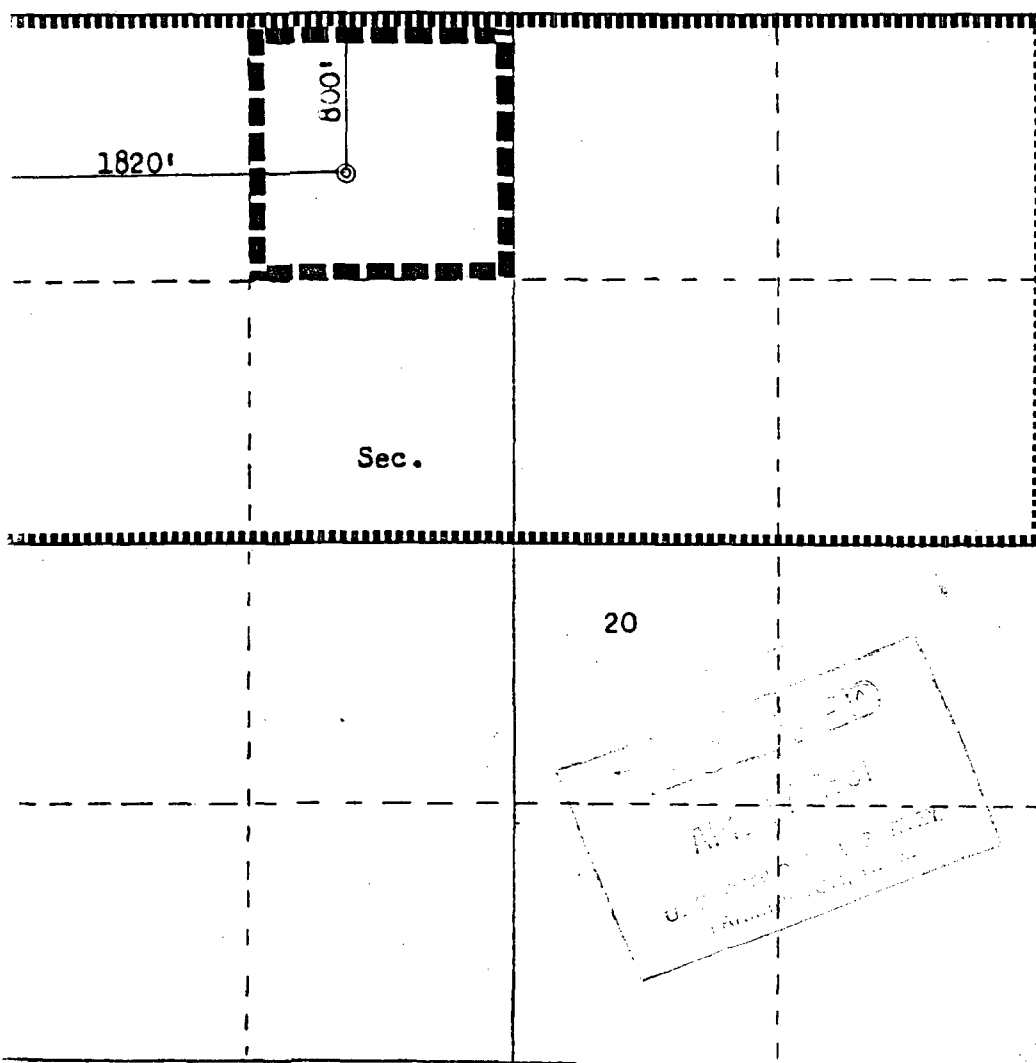
800	feet from the	North	line and	1820	feet from the	West	line
Ground Level Elev. 7222	Producing	Mesaverde	Pool	Blanco	now	Ojito	Dedicated Acreage: 320 1/10 140 Acres
		Gallup - Dakota	W. Lindri		nd. 1/107	Ojito abolished	

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 interests 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 interests, has been approved by the Commission.



Scale: 1"=1000'

CERTIFICATION

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

Name AP. Kendrick
Position Agent
Company Getty Oil Company
Date April 6, 1981

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

Date Surveyed February 27, 1981
Registered Professional Engineer and Land Surveyor Fred B. Kerr Jr.
Certificate No. 3950

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Attachment II

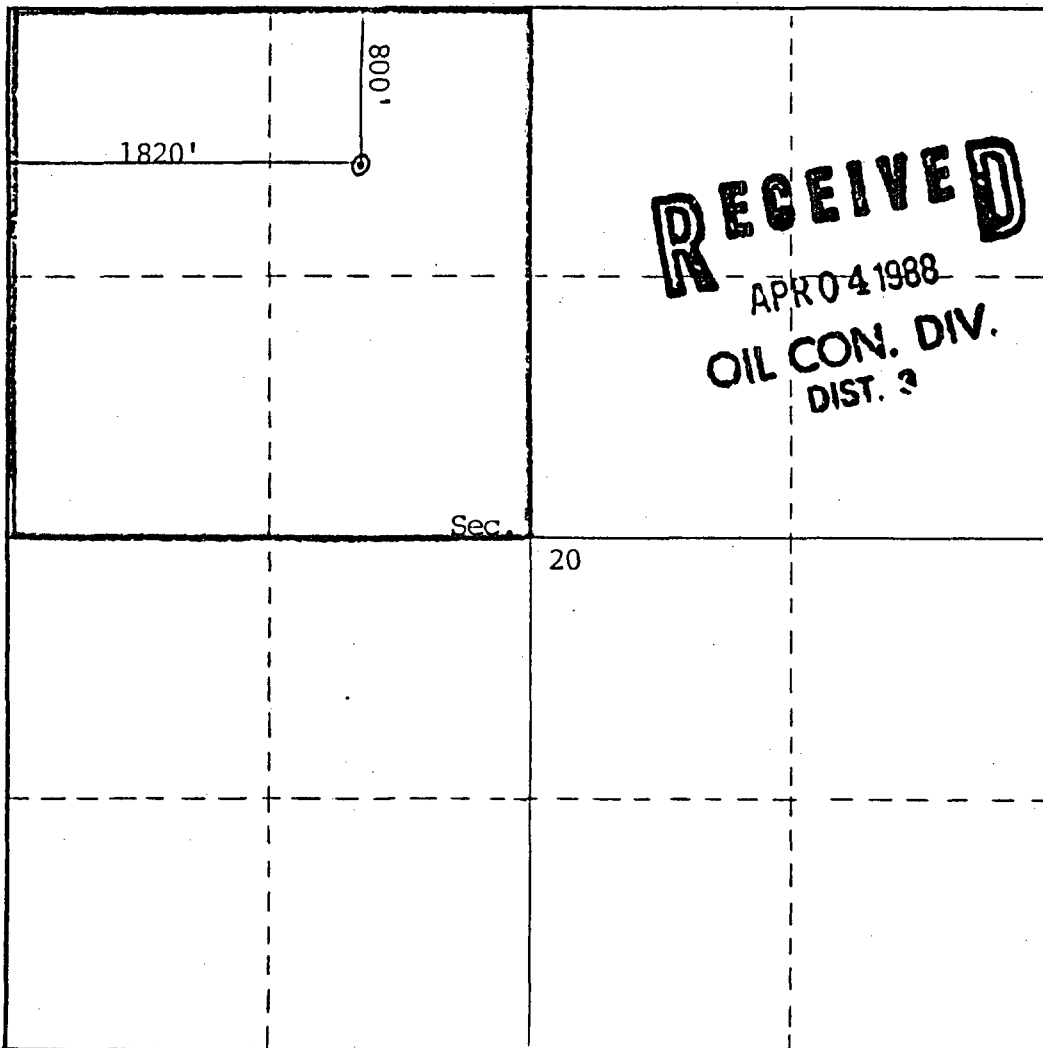
Operator TEXACO Inc.			Lease Lydia Rentz		Well No. 7
Unit Letter C	Section 20	Township 25N	Range 3W	County Rio Arriba	
Actual Footage Location of Well: 800 feet from the North line and 1820 feet from the West line					
Ground Level Elev. 7222'	Producing Formation Gallup Dakota		Pool Lindrith Gallup/Dakota West		Dedicated Acreage: 160 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 interests 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 interests, has been approved by the Commission.



CERTIFICATION

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

Ma B. L. Kama for Alan A. Kleier
Name

Area Superintendent
Position

Texaco Inc.
Company

March 31, 1988
Date

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

APR 11 1988

Date Surveyed **APR 11 1988**

Registered Professional Engineer and/or Land Surveyor

Certificate No. **FILE**

RETURN TO WISE BOX

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

Attachment III

OFFSET OPERATORS
LYDIA RENTZ # 7
SEC. 20 T25N / R03W

TEXACO 18	TEXACO 17	CURTIS J. LITTLE, OIL & GAS 16
		SCHALK DEVELOPMENT CO.
TEXACO 19	● LYDIA RENTZ #7 TEXACO 20	ELLIOT OIL CO, INC 21
TEXACO 30	TEXACO 29	ELLIOT OIL CO, INC 28

DISPOSITION OF OIL, GAS, AND WATER

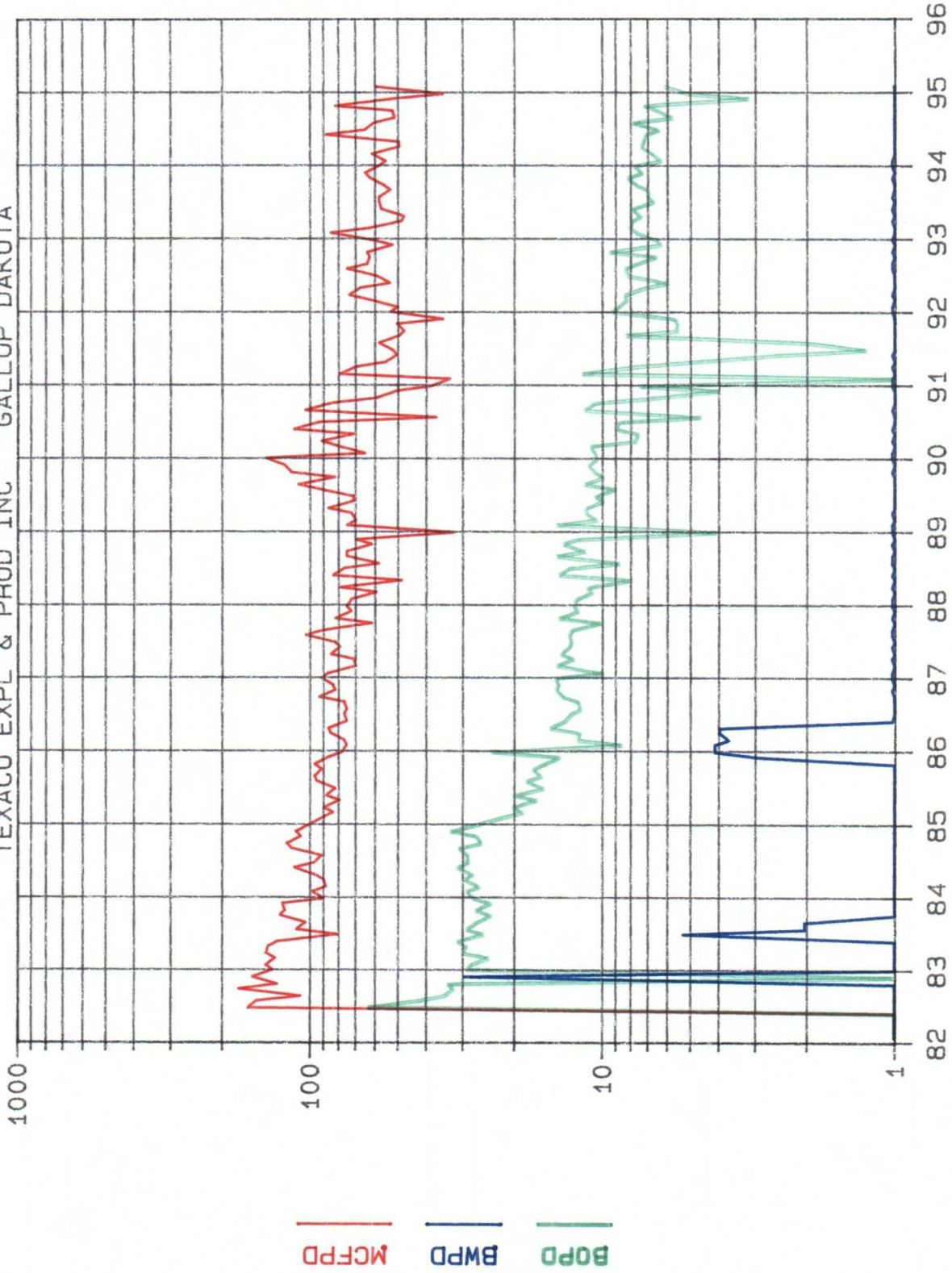
DISPOSITION OF OIL, GAS, AND WATER

Attachment II-A

LYDIA RENTZ 000007 LINDRITH WEST (GALLUP DAKOTA) GD
TEXACO EXPL & PROD INC GALLUP DAKOTA

LEASE DATA
LSE 25N03W20C01
FLD 8044442
OPER 158628
ZONE
25N-3W-20
COUNTY 039
STATE 30

STATUS 1-95
CO 64 MBO
CG 374 MMCF
CW 4 MBW
BOPD 6
BWPD 0
MCFPD 59
WELLS 1
CI 0 MBWI
BWIPD 0



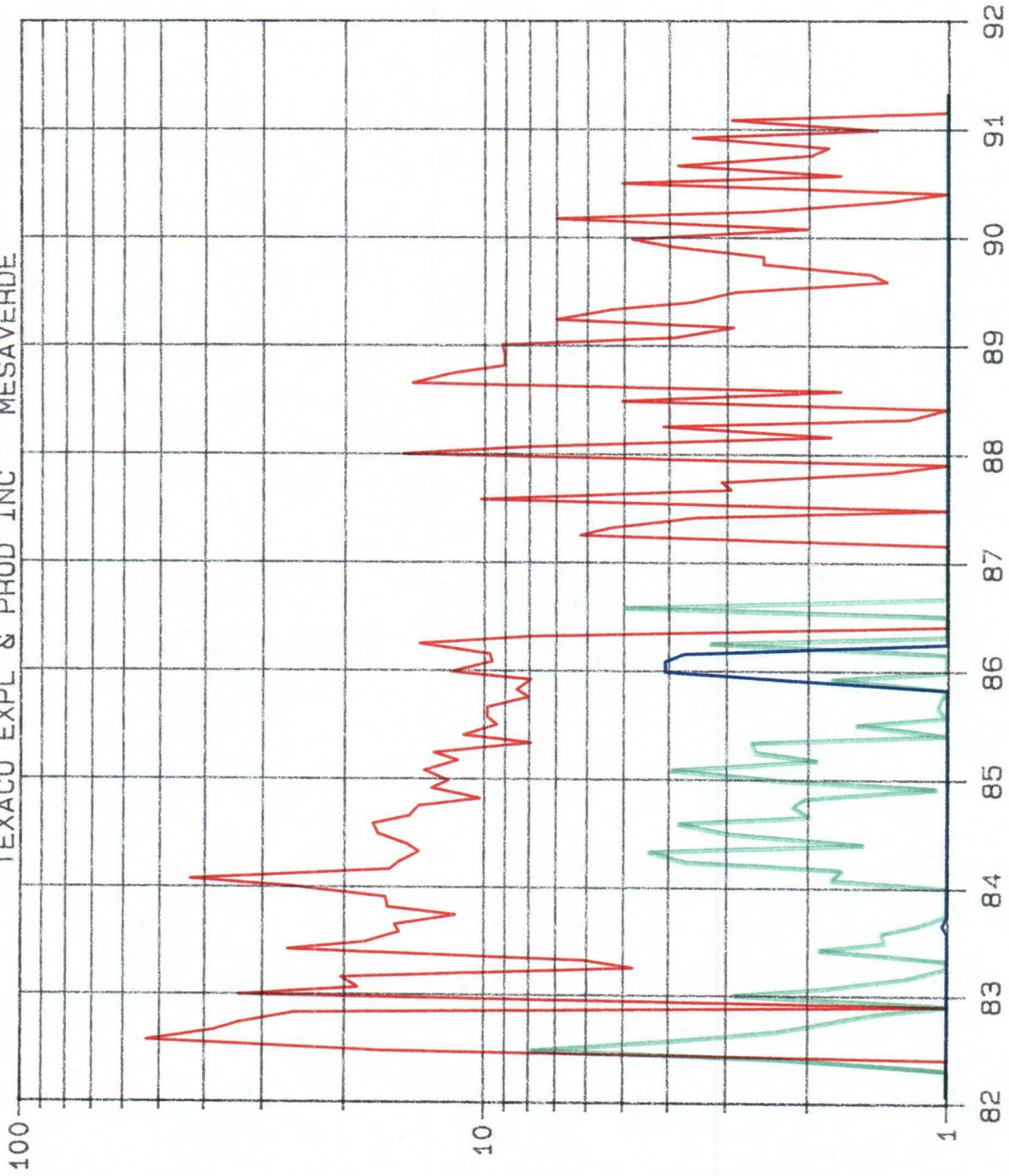
YEARS

Attachment IV - A

LYDIA RENTZ 000007 BLANCO (MESAVERDE) MV
TEXACO EXPL & PROD INC MESAVERDE

LEASE DATA
LSE 25N03W20C01
FLD 8007074
OPER 158628
ZONE
25N-3W-20
COUNTY 039
STATE 30

STATUS 4-91
CO 3 MBO
CG 29 MMCF
CW 0 MBW
BOPD 0
BWPD 0
MCFPD 0
WELLS 1
CI 0 MBWI
BWIPD 0



YEARS

Attachment VI

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator TEXACO E & P INC. Lease LYDIA RENTZ Well No. 7Location of Well: Unit C Sec. 20 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 WEST	GAS	FLOW	TBG.

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Completion	Hour, Date shut-in 11-91	Length of time shut-in	Si press. psig	Stablized (Yes or No)
Lower Completion	Hour, Date shut-in	Length of time shut-in	Si press. psig	Stablized (Yes or No)

FLOW TEST NO. 1

Commenced at (hour, date)*				Zone producing (Upper or Lower)			
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		PROD. ZONE	REMARKS		
		Upper Completion	Lower completion				
9-8-94				FARMINGTON AREA		BOTH ZONES SHUTIN	
9-9-94	24 HRS.	980	390	TAT	7-7		
9-10-94	48 HRS.	980	480	RH	ELM		
9-11-94	72 HRS	980	528	LNS	BRK		
9-12-94	96 HRS.	980	550	NOV 1 1994		.	
9-13-94	120 HRS	980	333	JLW	JDP	UPPER SHUTIN LOWER FLOW 24 HRS.	
9-14-94	144 HRS.	980	405	RFS	FILE		
9-15-94	168 HRS.	980	378	TLD	Return To	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	Stablized (Yes or No)
Lower Completion	Hour, Date shut-in	Length of time shut-in	Si press. psig	Stablized (Yes or No)

RECEIVED
OCT 23 1994OIL CON. DIV.
OCT 23 1994

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

FLOW TEST NO. 2

Commenced at (hour, date)**				Zone producing (Upper or Lower)	
TIME (hour, date)	LAPSED TIME SINCE**	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper completion	Lower completion		

Production rate during test

Oil _____ BOPD based on _____ Bbls. in _____ Hours _____ Grav. _____ GOR _____

Gas _____ MCFPD; Tested thru (Orifice or Meter): _____

Remarks: THIS TEST WAS CONDUCTED IN CONJUNCTION WITH EPNG PLANTS SHUT DOWN.

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

Approved OCT 26 1994
New Mexico Oil Conservation DivisionBy Charles SholomTitle DEPUTY OIL & GAS INSPECTOR, DIST. #3Operator TEXACO E & P INC.By Paul D. BerhoiTitle ENGINEER ASSISTANTDate OCTOBER 25, 1994

Attachment VII-A



10/20/94

LYDIA RENTZ No. 7

API# 30 039 22733

CURRENT COMPLETION

LOCATION:

800' FNL & 1820' FWL
NE/NW, Sec. 20, T25N, R3W
Rio Arriba County

FORMATION TOPS:

Ojo Alamo 3250'
Kirtland 3390'
Pictured Cliffs 3696'
Chacra 4580'
Cliffhouse(MV) 5364'
Menefee(MV) 5477'
Pt. Lookout(MV) 5860'
Gallup 6988'
Greenhorn 7812'
Graneros 7863'
Dakota 7904'

SQZ'd Perfs 5370'-88'

MESA VERDE PERFS:

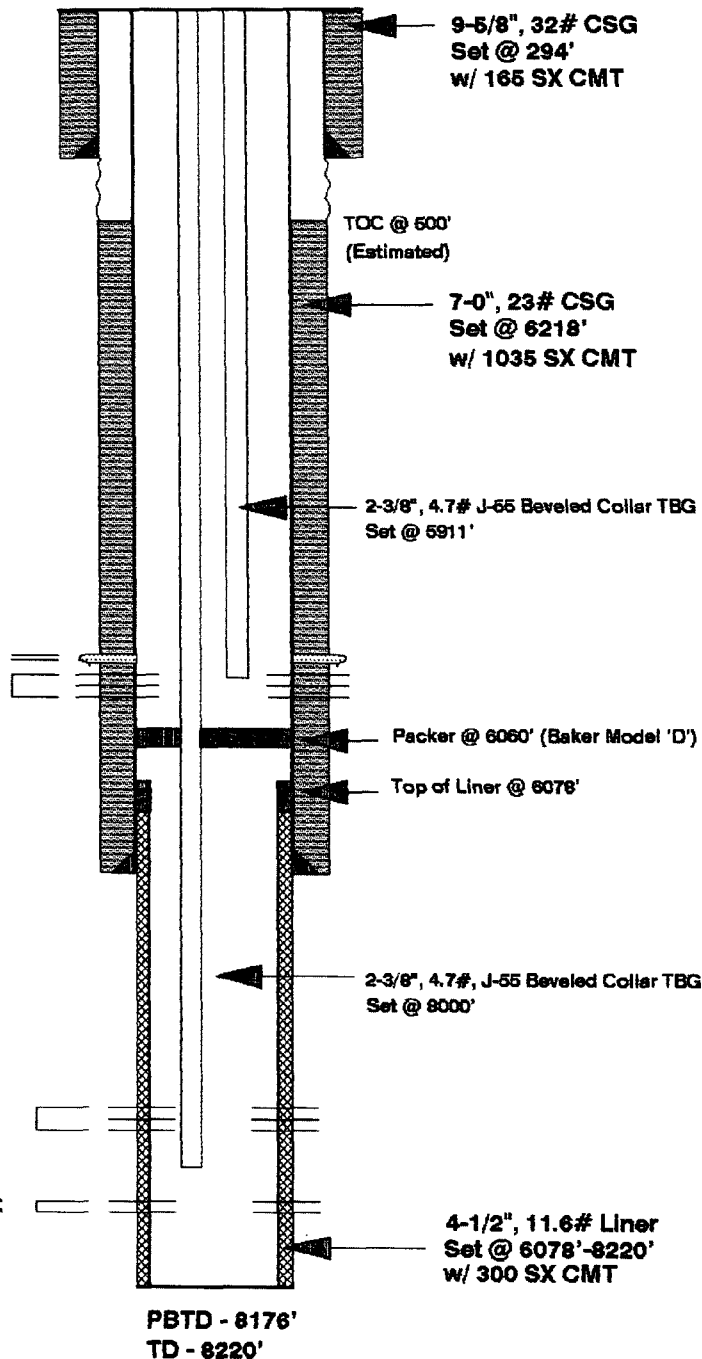
5874'-86' 5981'-86'
5891'-94'
1 JSP, 20 Shots

GALLUP PERFORATIONS:

7025'-33' 7156'-67'
7056'-68' 7174'-96'
7084'-88' 7211'-17'
7094'-7101'
1 SPF, 70 Shots

DAKOTA PERFORATIONS:

7914'-19', 8060'-84'
1 SPF, 29 Shots





10/20/94

LYDIA RENTZ No. 7

API# 30 039 22733

PROPOSED COMPLETION

LOCATION:

800' FNL & 1820' FWL
NE/NW, Sec. 20, T25N, R3W
Rio Arriba County

FORMATION TOPS:

Ojo Alamo 3250'
Kirtland 3390'
Pictured Cliffs 3696'
Chacra 4580'
Cliffhouse(MV) 5364'
Menefee(MV) 5477'
Pt. Lookout(MV) 5860'
Gallup 6988'
Greenhorn 7812'
Graneros 7863'
Dakota 7904'

PROPOSED PL LOOKOUT PERFS:

5805'-5986', 2 JSPF

SQZ'd Perfs 5370'-88'

MESA VERDE PERFS:

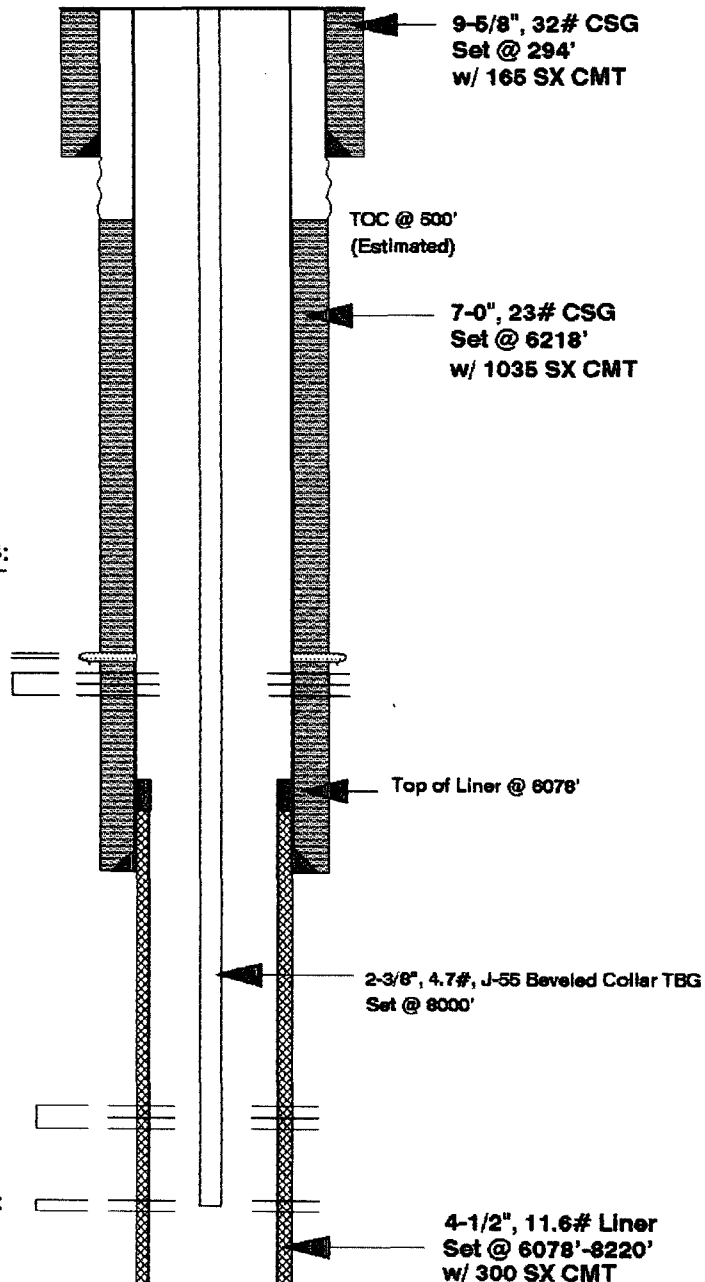
5874'-86' 5981'-86'
5891'-94'
1 JSP, 20 Shots

GALLUP PERFORATIONS:

7025'-33' 7156'-67'
7056'-68' 7174'-96'
7084'-88' 7211'-17'
7094'-7101'
1 SPF, 70 Shots

DAKOTA PERFORATIONS:

7914'-19', 8060'-84'
1 SPF, 29 Shots



Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

ELLIOT OIL CO.
Box 1355
Roswell NM
88202

4a. Article Number

P 337 994 934

4b. Service Type

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

7. Date of Delivery

4-14-95

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

SCHALK DEVELOPMENT CO
PO Box 25825
ALBUQUERQUE, NM
87125

4a. Article Number

P 081 443 737

4b. Service Type

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

7. Date of Delivery

APR 14 1995

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

FARMINGTON AREA					
TAT	J/S	FILE	9/18		
PH	J/S	REK			
LMS		EGH			
APR 17 1995					
FILE		NLS			
FILE		NDP			
FILE		RFS			
FILE		FILE	9/18		
FILE		Return To			