



Texaco Exploration and Production Inc

3300 N Butler
Farmington NM 87401

OIL CONSERVATION DIVISION
RECEIVED

1995 JAN 11 AM 8 52

December 30, 1994

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: David Catanach

RE: **Application for exception to NMOCD Rule 303-A: Downhole Commingle of
C.W. Robert No. 8-A 1700' FNL & 990' FEL, Unit H, Sec. 17-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 and the West Lindrith Gallup/Dakota within the referenced well. Approval of this application would require an exception to NMOCD 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 and were sent a copy of the supporting information (copy of return receipt cards attached).

The subject well is currently completed in the West Lindrith Gallup/Dakota and producing through 2-3/8" tubing. A "dual" completion would require that the Gallup/Dakota be pumped under packer and the Mesaverde be flowed up the casing-tubing annulus. Pumping the Gallup/Dakota under packer would be inefficient due to gas locking. Flowing the Mesaverde up the annulus would be inefficient due to wellbore loading and the inability to swab. The downhole commingling of these zones will offer an economic method of production without reservoir damage, waste reserves, or violation of correlative rights.

If you have any questions concerning this matter please contact Mr. Robert Schaffitzel at (505) 325-4397, ext. 27. Your attention to this matter is greatly appreciated.

Sincerely,

Ted A. Tipton
Operating Unit Manager

RFS/s

Attachments
NMOCD-Aztec
file

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

- (1) **Name and address of the operator:** Texaco Exploration and Production
3300 N. Butler Suite 100
Farmington, NM 87401

- (2) **Lease name, well number, well location, name of the pools to be commingled.**

Lease Name: C.W. Roberts
Well Number: 8-A
Well Location: 1700' FNL & 990' FEL, Unit H, Sec. 17
T25N-R3W, NMPM
Rio Arriba County, New Mexico

Pools to Commingle: Blanco Mesaverde 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 (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 C.W. Roberts No. 8-A Gallup/Dakota production is attached (Attachment IV). No Production data exists for the proposed Mesaverde completion. However, attached is a C-115 showing production from the nearest Mesaverde completions(Attachment V). The Mesaverde completion in the C.W. Roberts No. 8-A is expected to perform in a similar manner.

- (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.)**

Gallup/Dakota is a new completion and has not produced long enough to create an accurate decline curve. Decline curves of offsets C.W. Roberts No. 4 and C.W. Roberts No. 5 are attached (Attachments VI-A, VI-B).

Mesaverde - New completion, no production history is available. Decline curves of offsets C.W. Roberts No. 7 and C.W. Roberts No. 8 are attached (Attachments VII-A, VII-B). The Mesaverde completion in the C.W. Roberts No. 8-A is expected to perform in a similar manner.

- (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 offset data (New Mexico Packer Leakage Test 9/94 C.W. Roberts No.6).

Mesaverde: 465 psi (Attachment VIII)
Gallup/Dakota: 920 psi (Attachment VIII)

Actual Mesaverde P_{BH} will be obtained using shut-in testing upon 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	23	Oil, BOPD	3
Gas, MCFD	138	Gas, MCFD	405
Water, BWPD	15	Water, BWPD	0

The combined production from the Gallup/Dakota and Mesaverde formations will be approximately 543 MCFD, 26 BOPD, and 15 BWPD.

The Mechanics of the wellbore are not conducive to a "dual" completion. Given the 5-1/2" casing, a dual completion would require that the Gallup/Dakota be pumped under a packer and the Mesaverde be flowed up the casing-tubing annulus. Pumping the Gallup/Dakota under a packer would be inefficient due to gas locking. Flowing the Mesaverde up the annulus would be inefficient due to wellbore loading and the inability to swab. Therefore, it is requested that commingling be approved.

- (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	405/543=75%	3/26=12%	0/15=0%
Gallup/Dakota	138/543=25%	23/26=88%	15/15=100%

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 IX).

OIL CONSERVATION DIVISION

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator TEXACO		Lease C.W. ROBERTS		Well No. 8A
Unit Lease H	Section 17	Township 25 NORTH	Range 3 WEST	County RIO ARriba
Actual Footage Location of Well: 1700' feet from the NORTH line and 990' feet from the EAST line				
Ground level Elev. 7251' UG	Productive Formation Mesa Verde Gallup-Dakota	Pool Blanco, Mesa Verde West Lindrith Gallup-Dakota	Dedicated Acreage: 320/160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hectare marks on the plat below.

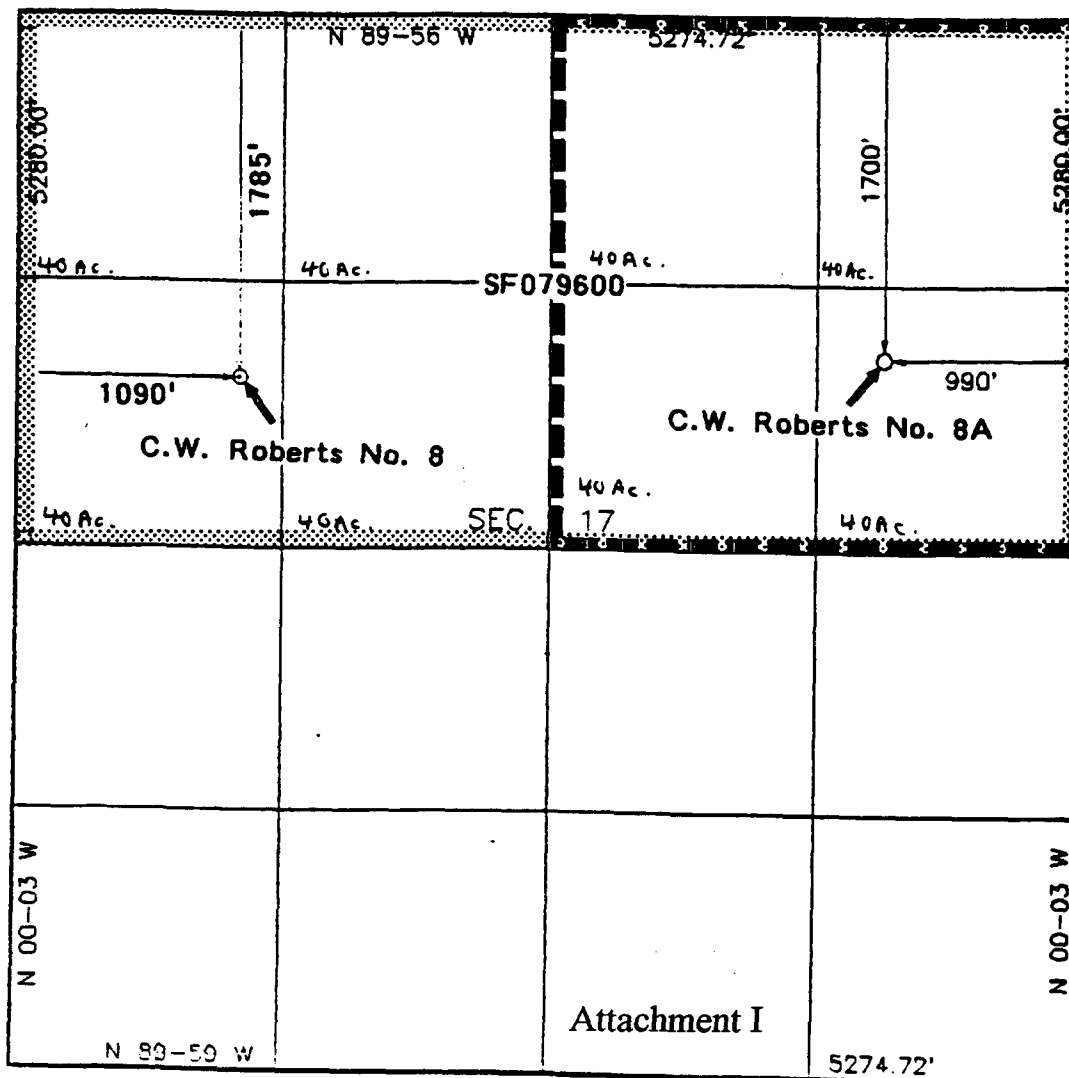
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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, force-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 the best of my knowledge and belief.

Signature
Royce Mariott
Printed Name
Royce Mariott
Position
Division Surveyor
Company
TEXACO E&P Inc
Date
2-9-94

SURVEYOR CERTIFICATION

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.

12/11/93

Date Surveyed
[Signature]
Signature
[Signature]
Professional Surveyor
NEW MEXICO
6857
6857
Certification
REGISTERED LAND SURVEYOR
Neale Edwards

**OFFSET OPERATORS
C.W. ROBERTS LEASE
SEC. 17 T25N / R03W**

BEARTOOTH OIL & GAS CO 7	SCHALK DEV. CO 8	9
SOUTHLAND ROYALTY CO.	MERIDIAN OIL, INC	MERIDIAN OIL, INC
18 TEXACO	C.W. ROBERTS #8 A 17 TEXACO	CURTIS J. LITTLE 16 SCHALK DEV. CO
19 TEXACO	20 TEXACO	21 ELLIOTT OIL CO. INC

**OFFSET OPERATORS
C.W. ROBERTS #8 A
T25N / R03W**

Beartooth Oil & Gas Co.
745 Pinyon Ct.
Fruita, CO 81521

Curtis J. Little, Oil & Gas
2346 E. 20th St.
Farmington, NM 87499
(505)327-6176

Elliot Oil Co.
Box 1355
Roswell, NM 88202
(505)622-5840

Meridian Oil, Inc.
3535 E. 30th
Farmington, NM 87402

Schalk Development Co.
P.O. Box 25825
Albuquerque, NM 87125
(505)881-6649

Southland Royalty Company
P.O. Box 4239
2919 Allen Pkwy.
Houston, TX 77210

POOL NAME (Underline)			INJECTION		PRODUCTION			DISPOSITION OF GAS				DISPOSITION OF OIL						
Lease Name	WELL NO.	UNIT SEC. TWP. RNG.	VOLUME	PRESS.	BARRELS OIL/COND. PRODUCED	BARRELS OF WATER PRODUCED	GAS PRODUCED (MCF)	DAYS PROD	SOLD	TRANS-PORTER	OTHER	CODE	OIL ON HAND AT BEG. OF MONTH	BBLS. TO TRANS-PORTER	TRANS-PORTER	OTHER	CODE	OIL ON HAND AT END OF MONTH
LINDRITH GALLUP-DAKOTA, WEST																		
ROBERTS. C. W.																		
30-039-22732	3A	18 25N 3W	0	0	0	0	0	0										
30-039-21295	5	F 17 25N 3W	0	0	17	155	491	31										
30-039-22731	6	G 18 25N 3W	0	0	0	0	0	0										
30-039-22784	6A	18 25N 3W	0	0	16	30	512	31										
30-039-25375	8A	H 17 25N 3W	0	0	761	713	3083	20										
			0		794	898	4186		4086	TEP	120	U	281	638	MOI		0	437

Attachment IV

DISTRIBUTION Original OCD Santa Fe Copy OCD Dist. Office in which lease is located Copy to Transporter (s)	STATUS CODE FFLOWING PPUMPING GGAS LIFT SSHUT IN TTEMP. ABANDONED IINJECTION DDISCONTINUED	"OTHER" GAS DISPOSITION CODE XUSED OFF LEASE DUSED FOR DRILLING GGAS LIFT LLOST (MCF ESTIMATED) EEXPLANATION ATTACHED RREPRESSURING OR PRESSURE MAINTENANCE VVENTED UUSED ON LEASE	"OTHER" OIL DISPOSITION CODE CCIRCULATING OIL LLOST SSEDIMENTATION (BS & W) EEXPLANATION ATTACHED TTHEFT	I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE T. A. TIPTON (TYPED NAME) AREA MANAGER (POSITION) 505-325-4397 (PHONE NUMBER) 11-22-94 (DATE) (SIGNATURE)
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State of New Mexico
Energy, Minerals, and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. BOX 2088
Santa Fe, New Mexico 87504-2088

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

Company
or Operator **TEXACO EXPLORATION & PRODUCTION INC.** Address **3300 NORTH BUTLER FARMINGTON, NM 87401** Zip **87401** For Month, Year **10 1994** Page **83** of **128**

POOL NAME (Underline)		INJECTION		PRODUCTION			DISPOSITION OF GAS			DISPOSITION OF OIL								
WELL STATUS	WELL NO. UNIT SEC. TWP. RNG.	VOLUME	PRESS.	BARRELS OIL/COND. PRODUCED	BARRELS OF WATER PRODUCED	GAS PRODUCED (MCF)	DAYS PROD	SOLD	TRANS- POR- TER	OTHER	CODE	OIL ON HAND AT BEG. OF MONTH	BBLs. TO TRANS- PORTER	TRANS- POR- TER	OTHER	CODE	OIL ON HAND AT END OF MONTH	
BLANCO MESAVERDE (PRORATED GAS)																		
ROBERTS, C. W.																		
3C-039-05966	3	0	18	25N	3W	P												
3C-039-22732	3A	18	25N	3W	S													
3C-039-22731	6	G	18	25N	3W	P												
3C-039-22784	6A	18	25N	3W	P													
3C-039-23102	7	J	17	25N	3W	F												
3C-039-23101	8	E	17	25N	3W	S												
Attachment V																		
I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE																		
T. A. TIPTON																		
(TYPED NAME)																		
AREA MANAGER																		
(POSITION)																		
(SIGNATURE)																		
11-22-94																		
(DATE)																		

DISTRIBUTION

Original OCD Santa Fe

One Copy OCD Dist. Office

in which lease is located

One Copy to Transporter (s)

DATE DUE

To be postmarked by 24th day

of next succeeding month

STATUS CODE

FFLOWING

PPUMPING

GGAS LIFT

SSHUT IN

TTEMP. ABANDONED

IINJECTION

DDISCONTINUED

"OTHER" GAS DISPOSITION CODE

XUSED OFF LEASE

DUSED FOR DRILLING

GGAS LIFT

LLOST (MCF ESTIMATED)

EEXPLANATION ATTACHED

RREPRESSURING OR

VVENTED

UUSED ON LEASE

"OTHER" OIL DISPOSITION CODE

CCIRCULATING OIL

LLOST

SSEDIMENTATION (BS & W)

EEXPLANATION ATTACHED

TTHEFT

"OTHER" OIL DISPOSITION CODE

CCIRCULATING OIL

LLOST

SSEDIMENTATION (BS & W)

EEXPLANATION ATTACHED

TTHEFT

"OTHER" OIL DISPOSITION CODE

CCIRCULATING OIL

LLOST

SSEDIMENTATION (BS & W)

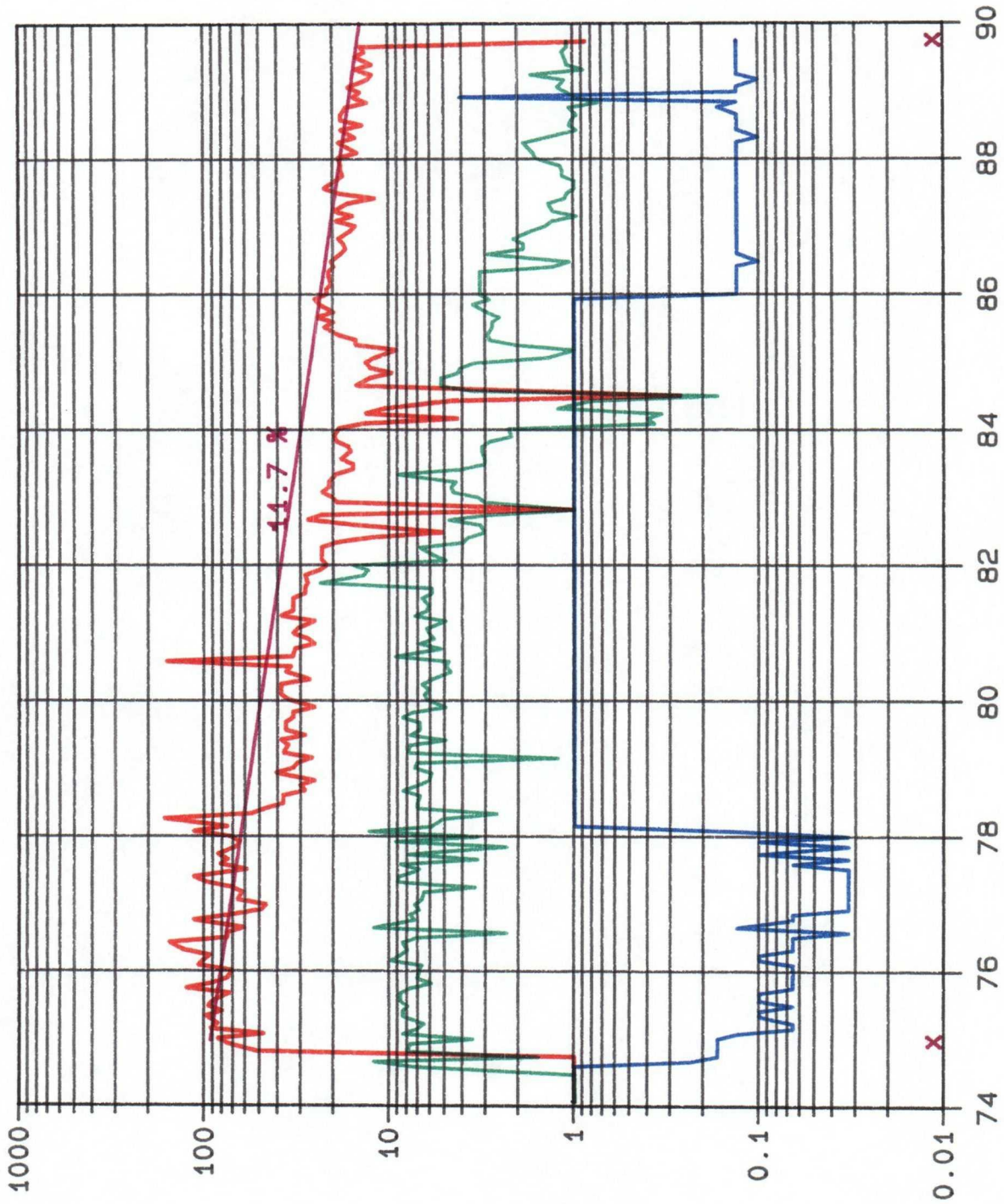
EEXPLANATION ATTACHED

TTHEFT

C W ROBERTS 000004

LEASE DATA
LSE 25N03W17M
FLD 8044442
OPER 720127
ZONE GALLUP DAT
25N-3W-17
COUNTY 039
STATE 30

STATUS 9-89
CO 26 MBO
CG 203 MMCF
BOPD 1
BWPD 0
MCFPD 1
WELLS 1
CI 0 MBWI
BWIPD 0

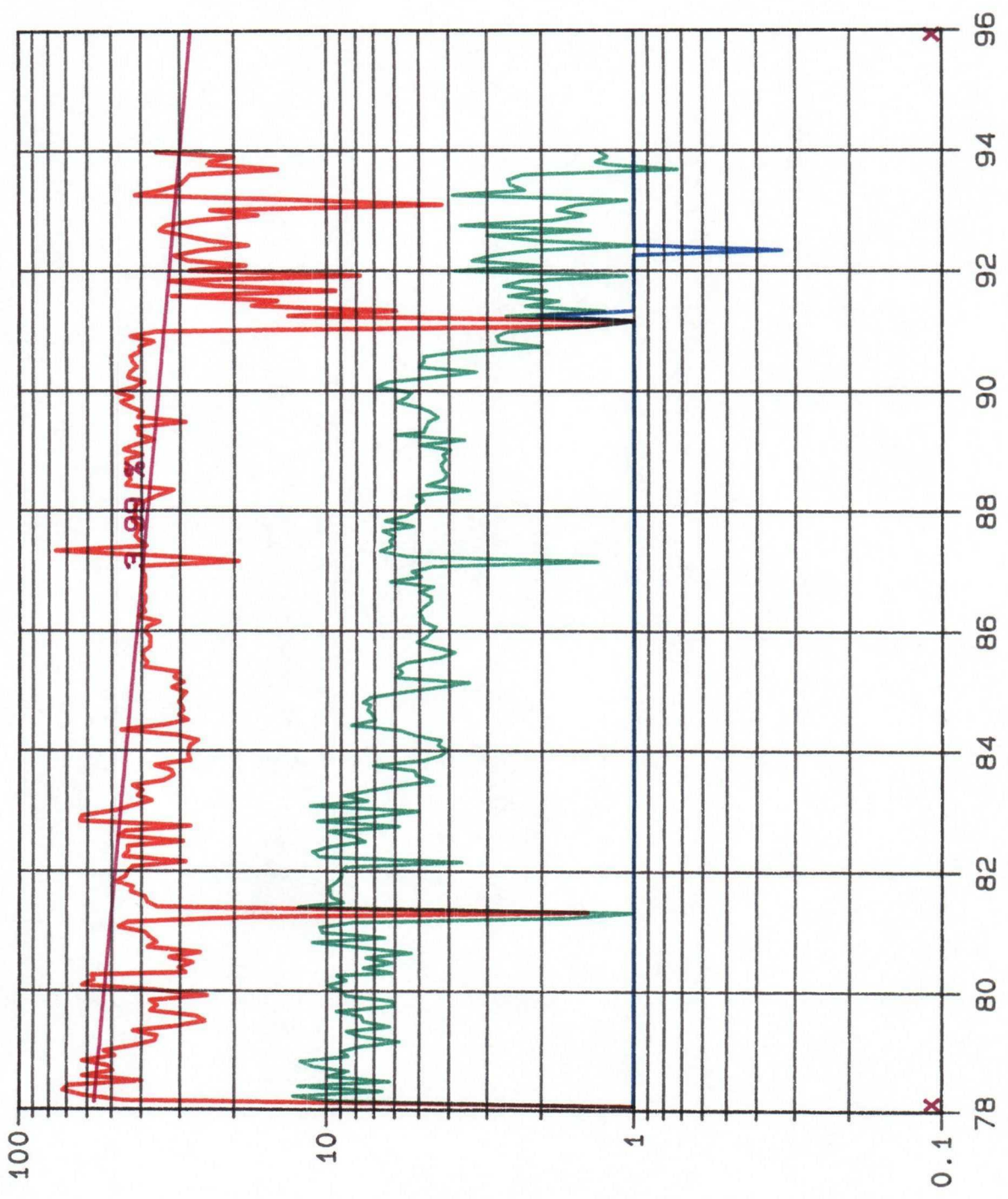


YEARS

C W ROBERTS 000005

LEASE DATA
LSE 25N03W17F0
FLD 8044442
OPER 158628
ZONE GALLUP DAT
25N-3W-17
COUNTY 039
STATE 30

STATUS 12-93
CO 32 MBO
CG 211 MMCF
BOPD 1
BWPD 0
MCFPD 36
WELLS 1
CI 0 MBWI
BWIPD 0

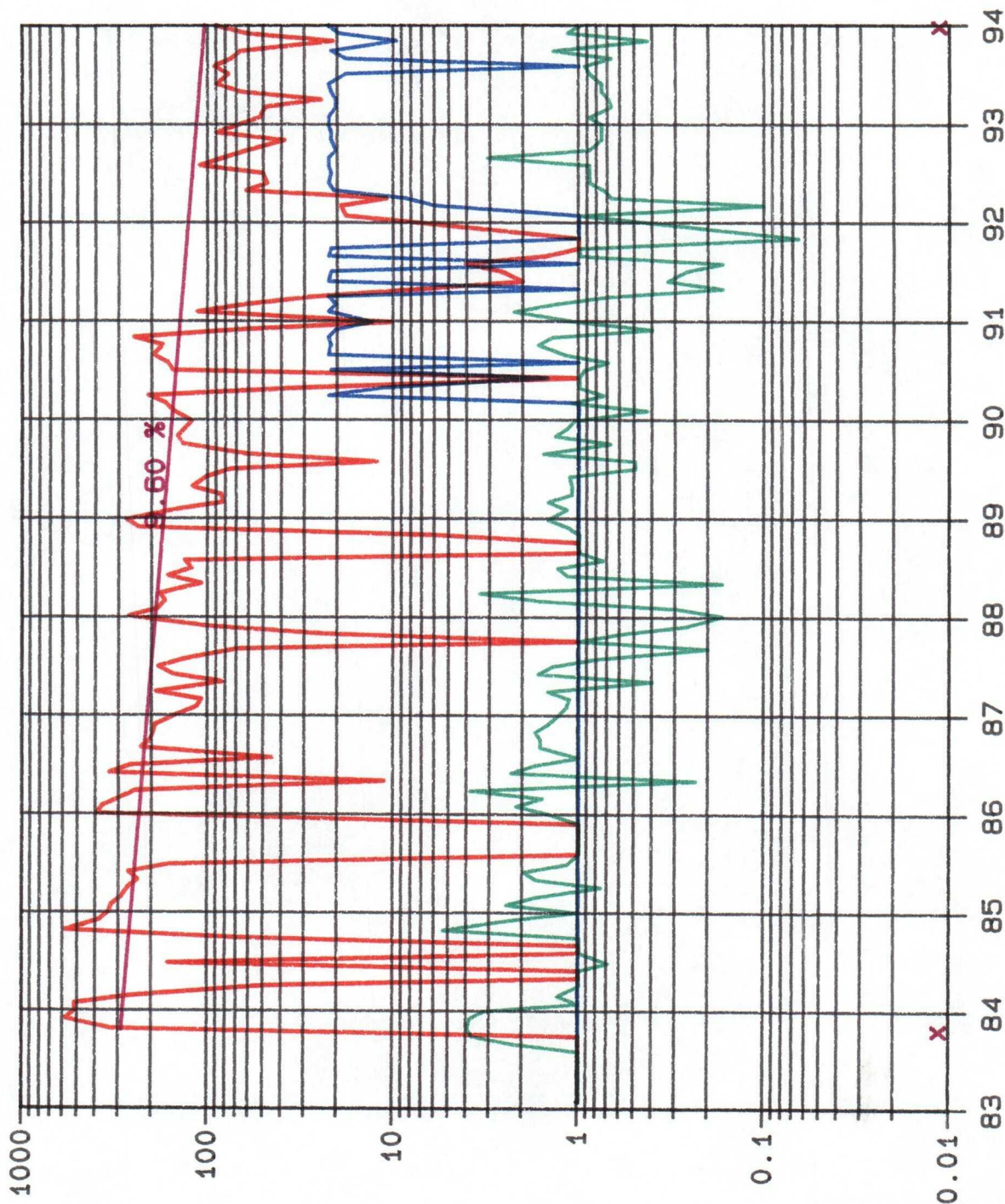


YEARS

C W ROBERTS 000007

LEASE DATA
LSE 25N03W17J0
FLD 8007074
OPER 158628
ZONE MESAVERDE
25N-3W-17
COUNTY 039
STATE 30

STATUS 12-93
CO 4 MBO
CG 475 MMCF
BOPD 1
BOPD 22
MCFPD 90
WELLS 1
CI 0 MBWI
BWIPD 0



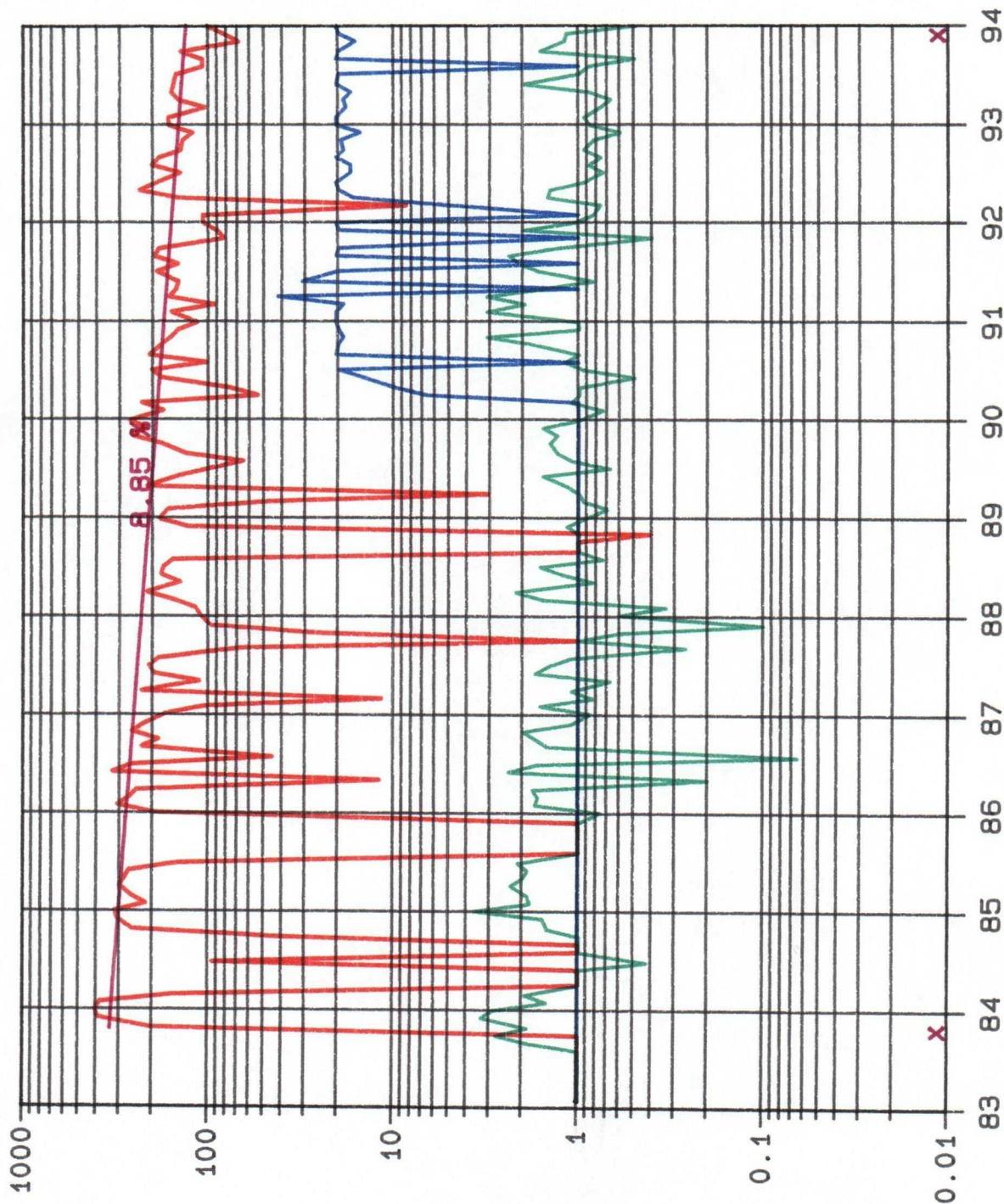
— BOPD
— MCFPD
— BWIPD

Attachment VII-A

C W ROBERTS 000008

LEASE DATA
LSE 25N03W17E
FLD 8007074
OPER 158628
ZONE MESAVERDE
25N-3W-17
COUNTY 039
STATE 30

STATUS 12-93
CO 4 MBO
CG 549 MMCF
BOPD 0
BWPD 20
MCFPD 101
WELLS 1
CI 0 MBWI
BWIPD 0



BOPD
BWPD
MCFPD

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator TEXACO E & P INC. Lease C.W.ROBERTS Well No. 6Location 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	GAS	FLOW	TBG.

PRE-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)

FLOW TEST NO. 1

Commenced at (hour, date)*				Zone producing (Upper or Lower)	
TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower completion		
9-8-94					BOTH ZONES SHUTIN
9-9-94	24 HRS.	352	920		
9-10-94	48 HRS.	386	920		
9-11-94	72 HRS.	402	920		
9-12-94	96 HRS.	427	920		
9-13-94	120 HRS.	440	744		UPPER SHUTIN LOWER FLOW 24 HRS
9-14-94	144 HRS.	453	621		UPPER SHUTIN LOWER FLOW 24 HRS.
9-15-94	168 HRS.	462	430		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)

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.

3. Article Addressed to:
Curtis Little, Oil & Gas
2346 E. 20th St.
Farmington NM
87499

Signature (Addressee)
Signature (Agent)

4a. Article Number
2 743 378 599
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
12-19-94

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

Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT Consult postmaster for fee.

1. Article Addressed to:
SCHALK Development Co.
PO Box 25825
ALBUQUERQUE, NM
87125

Signature (Addressee)
Signature (Agent)

4a. Article Number
2 743 378 594
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
DEC 20 1994

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

Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT Consult postmaster for fee.

Article Addressed to:
MERIDIAN OIL INC
3535 E. 30th ST.
FARMINGTON NM
87401

Signature (Addressee)
Signature (Agent)

4a. Article Number
2 743 378 595
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
12-19-94

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

Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT Consult postmaster for fee.

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.

3. Article Addressed to:
ELLIOT OIL Co.
Box 1355
Roswell NM
88202

Signature (Addressee)
Signature (Agent)

4a. Article Number
2 743 378 598
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
DEC 19 1994

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

Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT Consult postmaster for fee.

2. ☐ Restricted Delivery
Consult postmaster for fee.

Signature (Agent)
Signature (Addressee)

Article Addressed to:
Reutheith Oil & Gas
PO Box 2364
Billings MT 59103

4a. Article Number
2 743 378 596
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
12/21/94

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

SENDER:
1. and/or 2. for additional services.
2. ☐ Restricted Delivery
Consult postmaster for fee.

1. also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

Thank you for using Return P

Service.

Article Addressed to:
Southland Royalty Company
PO Box 4239
2919 Allen Pkwy
Houston, TX 77218

4a. Article Number
2 743 378 597
4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery
DEC 20 1994

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

SENDER:
1. and/or 2. for additional services.
2. ☐ Restricted Delivery
Consult postmaster for fee.

1. also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

Thank you for using Return Receipt Service.

Attachment IX



CW ROBERTS No. 8A

1700' FNL & 990' FEL
SE/NE, Sec. 17, T25N, R3W
w/ PROPOSED MESA VERDE COMPLETION

ELEVATION: 7251' GR
SPUD DATE: 7-02-94
COMPL DATE: 7-19-94

FORMATION TOPS:

Ojo Alamo 3352'
Kirtland 3461'
Fruitland 3527'
Pictured Cliffs 3740'
Lewis 3859'
Chacra 4647'
Cliff House 5388'
Menefee 5486'
Pt. Lookout 5886'
Mancos 6048'
Gallup 7066'
Niobrara "A" 7091'
Niobrara "B" 7124'
Sanostee 7565'
Carlisle 7682'
Greenhorn 7852'
Graneros 7912'
Dakota IX 7950'
Dakota I 8080'
Morrison 8152'

PROPOSED MESA VERDE PERFS:

5819'-5832', 5887'-5896', 5944'-5954'
4 SPF

GALLUP PERFS: 7124'-7137'

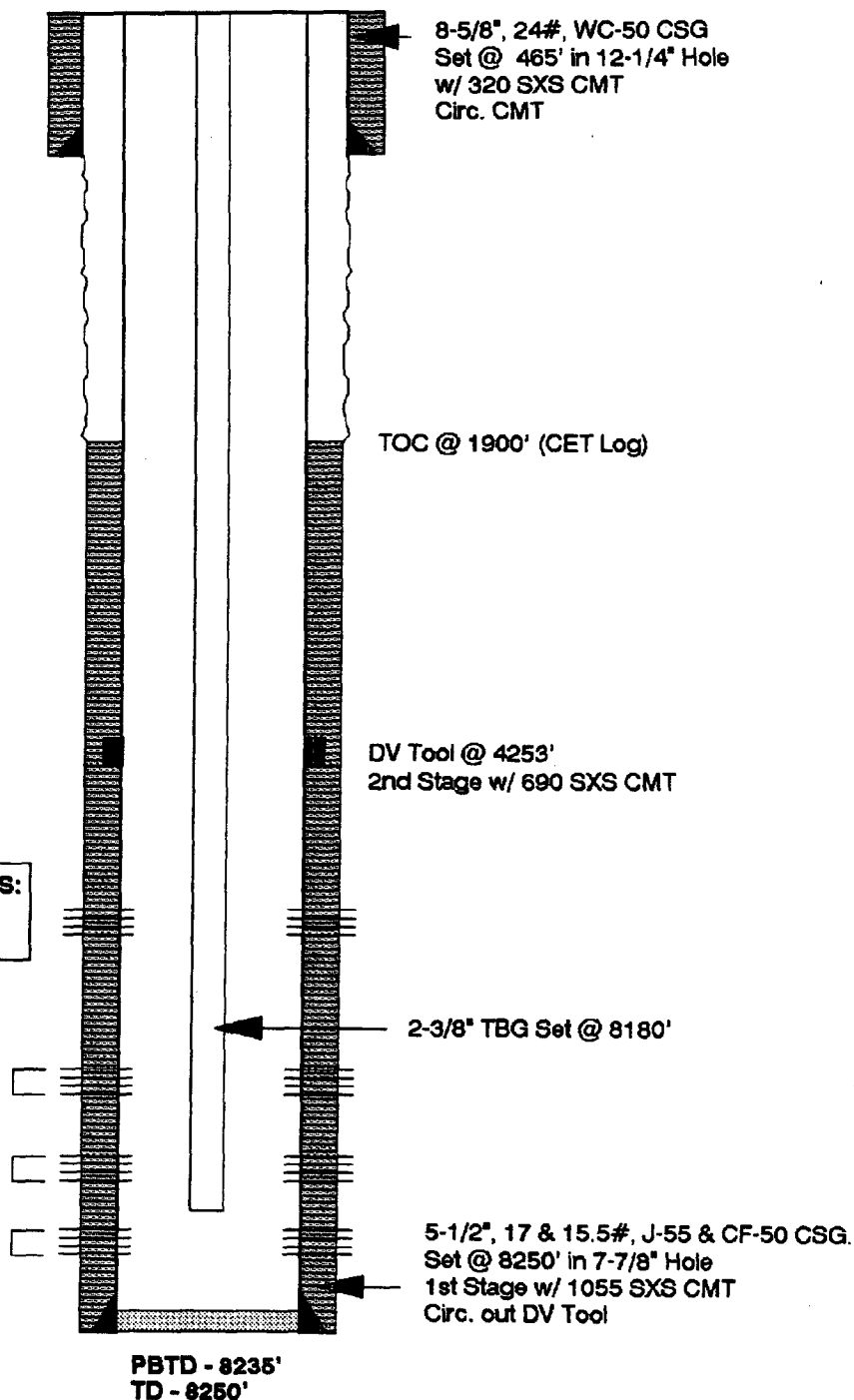
4 SPF, 0.39" dia., 52 Holes
660 gl HCl, 118500 gl XL gel, 271,000# 20-40

U. DAKOTA PERFS: 7950'-7970'

2 SPF, 0.39" dia., 40 Holes
600 gl HCl, 68,822 gl XL gel, 150,000# 20-40

L. DAKOTA PERFS: 8080'-8112'

2 SPF, 0.39" dia., 64 Holes
1000 gl HCl, 46,000 gl XL gel, 154,000# Sand



C.W. Roberts No. 8-A
Mesaverde Workover Procedure

1. MIRUSU, POOH w/ rods, NDWH, NUBOP, POOH w/ 2-3/8" tubing.
2. RIH w/ 5-1/2" RBP on 2-3/8" TBG, set RBP @ 6000'. Test RBP and CSG to 3000 psi. Dump one SK of sand on top of RBP. Spot 500 gals 15% HCL across perf interval. POOH w/ TBG.
3. RU wireline and GIH with a 3-1/8" OD Schlumberger "Heg" cased carrier gun and perforate the following Mesaverde Intervals with 4 SPF (0.39" holes), 90 degree phasing:

<u>Interval</u>	<u>Ft</u>	<u>Holes</u>
5819-5832'	13'	52
5887-5896'	9'	36
5944-5954'	10'	40

4. RU Service Company. Install Frac Tree. Break down perfs (flush acid) with 2 % KCL water (establish rate and pressure).
5. Fracture stimulate perforated interval using 119,000 # 20/40 Brady Sand and 51,775 Gal 40 # Linear Gel. Tail Brady Sand with 24,000 # resin coated sand.

16,000 gals Pad
1,000 gals 1 ppg
2,000 gals 2 ppg
3,000 gals 3 ppg
5,000 gals 4 ppg
5,000 gals 5 ppg
10,000 gals 6 ppg
4,000 gals 6 ppg (Resin Sand)
5,775 gals Flush

Max Pressure 3000 psi
Average rate 40 BPM

6. Shut well in overnight to allow resin coating to cure.
7. Flow back. RIH with 2-3/8" TBG to 5948'. Cleanout if necessary. Swab/flow test Mesaverde interval. NDBOP, NUWH, RDMOSU. Obtain shut-in pressure and fluid level. Put Mesaverde on production and test.
8. If Mesaverde completion is successful, notify NMOCD Aztec District office with our intent to commingle. MIRUSU, NDWH, NUBOP. POOH with 2-3/8" TBG. RIH w/ retrieving head on 2-3/8" TBG and POOH w/ RBP @ 6000'. GIH and cleanout to PBTD. POOH. RIH w/ rods, pump and 2-3/8" production tubing. NDBOP, NUWH, RDMOSU. Put well on downhole commingled production (MV and GP/DK). Obtain stable commingled oil, gas, and water production rates for allocation formula.
9. If Mesaverde completion is unsuccessful, cement squeeze Mesaverde. MIRUSU, NDWH, NUBOP. POOH RIH w/ retrieving head on 2-3/8" tubing and POOH w/ RBP @ 6000'. GIH and cleanout to PBTD. POOH. RIH with Gallup/Dakota production equipment. NDBOP, NUWH, RDMOSU. Return well to G/DK production.

David Catanach

From: Ernie Busch
To: David Catanach
Subject: TEXACO EXPL/PROD INC (DHC)
Date: Friday, January 27, 1995 10:32AM
Priority: High

C.W. ROBERTS #8A
17-25N-03W
RECOMMEND: APPROVAL

DHC-1087