

Release Immediately

By DRC

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702



March 14, 1986

Mr. Richard L. Stamets
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

RECEIVED

APR 4 1986

OIL CONSERVATION DIVISION

Dear Mr. Stamets:

Application for Triple Downhole Commingling of the
Blinebry, Drinkard and Wantz Abo Pools
S. J. Sarkeys Well No. 3
Unit I, Section 23, T21S, R37E
Lea County, New Mexico

Case 8875

ARCO Oil and Gas Company respectfully requests that a hearing be scheduled in order to obtain approval to triple downhole commingle the Blinebry, Drinkard and Wantz Abo pools in the S. J. Sarkeys Well No. 3. The subject well is located in Section 23, T-21-S, R-37-E of Lea County, New Mexico.

The S. J. Sarkeys Well No. 3 was initially completed in the Wantz Abo in February, 1954. The Wantz Abo was abandoned in July, 1964 and the well was converted to a dual completion in the Blinebry and Drinkard pools. The Blinebry and Drinkard were downhole commingled in October, 1980 as per NMOCD Order No. DHC-290. In November, 1985, a workover on the S. J. Sarkeys No. 3 was performed to: 1) test the Wantz Abo zone; and 2) add perforations to the Blinebry and Drinkard zones. The Wantz Abo was tested in order to gain information that will be used in this application requesting approval to triple downhole commingle the Blinebry, Drinkard and Wantz Abo pools. The Wantz Abo is now temporarily abandoned with the use of a retrievable bridge plug. The S. J. Sarkeys No. 3 is currently a downhole commingled Blinebry/Drinkard producer.

The triple downhole commingling of the Blinebry, Drinkard and Wantz Abo is necessary to permit efficient, economical production from all three zones. No crossflow between zones is expected. Ownership of the zones to be commingled is common, including working interest and royalty. We believe that this request is justified in the interest of conservation and to protect correlative rights.

Attached is the information requested by OCD Rule 303-C for downhole commingling applications. Thank you for your consideration.

Yours very truly,

Jack T. Lowder
Senior Operations/Analytical Engineer

JTL:lu

S. J. Sarkeys Well No. 3
Triple Downhole Commingling

INFORMATION FOR DOWNHOLE COMMINGLING

a) Operator: ARCO Oil and Gas Company
P.O. Box 1610
Midland, Texas 79702

b) Lease, Well, Location and Pools:

S. J. Sarkeys Well No. 3
2310' FSL and 330' FEL
Section 23, T21S, R37E
Lea County, New Mexico

Commingled Pools: Blinebry, Drinkard and Wantz Abo

c) Acreage Dedication and Offset Ownership:
(See Attachments)

d) 24-Hour Productivity Tests
(See Attached Form C-116)

e) Decline Curves and Completion History:
(See Attachments)

f) Bottom Hole Pressures:

Based on 72-hour bottom hole pressure surveys performed on the S. J. Sarkeys No. 3 in January and February, 1986, the bottom-hole pressures of the Blinebry, Drinkard and Wantz Abo are as follows:

	<u>Formation</u>	<u>Sub-Sea Depth</u>	<u>Bottom-Hole Pressure (psia)</u>
5756-5901	Blinebry	-2430	456
6459-6636	Drinkard	-3071	641
6884-7236	Wantz Abo	-3613	1080

g) Fluid Incompatibility:

No fluid incompatibility has been observed in ARCO's S. J. Sarkeys Well No. 4, a south offset, which has been triple downhole commingled in the Wantz Abo, Drinkard and Blinebry since November, 1984.

h) Value of Commingled Fluids:

The S. J. Sarkeys lease is classified as stripper on a surface basis due to the presence of several producing zones. Reentering the Wantz Abo and triple downhole commingling the Wantz Abo, Drinkard and Blinebry will not endanger this stripper classification. The combined oil streams will have the same value as the separated oil streams.

i) Allocation of Production:

Wantz Abo Oil	32%
Drinkard Oil	12%
Blinebry Oil	56%
	<u>100%</u>
Wantz Abo Gas	22%
Drinkard Gas	7%
Blinebry Gas	71%
	<u>100%</u>

Blinebry is currently producing 32 BOPD and 211 MCFGD. Drinkard is currently producing 6 BOPD and 21 MCFGD. Wantz Abo produced 18 BOPD and 64 MCFGD before it was temporarily abandoned.

j) All offset operators have been notified by registered mail of the proposed triple commingling and given a copy of this application.

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



February 19, 1986

OFFSET OPERATORS
S. J. SARKEYS LEASE

Gentlemen:

Notification of Intent to Triple Downhole Commingle the
Wantz Abo, Drinkard and Blinebry
S. J. Sarkeys Well No. 3
2310' FSL and 330' FEL
Section 23, T-21-S, R-37-E
Lea County, New Mexico

In accordance with the New Mexico Oil Conservation Division, we are notifying all offset operators of our intentions to triple downhole commingle production from the Blinebry, Drinkard, and Wantz Abo in the subject well. This letter serves as a proper notification.

Yours very truly,

Jack T. Lowder
Senior Engineer

JTL:tis

S. J. SARKEYS LEASE

OFFSET OPERATORS

Chevron U.S.A., Inc.
P. O. Box 670
Hobbs, New Mexico 88240

Mobil Producing Texas and New Mexico, Inc.
P. O. Box 633
Midland, Texas 79702

Shell Oil Company
600 N. Marienfeld, Suite 310
Midland, Texas 79701

Texaco, Inc.
P. O. Box 728
Hobbs, New Mexico 88240

The Eastland Oil Company
One Marienfeld Place, Suite 560
Midland, Texas 79702

Sun Exploration and Production Co.
P. O. Box 1861
Midland, Texas 79702

Acoma Oil Corporation
Executive Plaza Building
210 W. 6th
Suite 1200
Fort Worth, Texas 76102

Russell E. Leeser
1390 Ridge Rd.
Littleton, Colorado 80120

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

50 YEARS



1935 - 1985

TONY ANAYA
GOVERNOR

February 17, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

ARCO Oil & Gas Company
P.O. Box 1610
Midland, TX 79702

Attn: Mr. Jack T. Lowder

SUBJECT: S.J. Sarkey No. 3-I, Sec. 23, T21S, R37E
Revised Production Allocation DHC-290

Dear Mr. Lowder:

Your recommendation for a revision in the percentage allocation of Blinebry and Drinkard production as authorized by DHC-290 is acceptable as outlined in your February 14, 1986 letter.

Very truly yours,

OIL CONSERVATION DIVISION

A handwritten signature in cursive script, appearing to read "Jerry Sexton". The signature is written in dark ink and is positioned above the printed name and title.

Jerry Sexton
Supervisor, District I

ed

ARCO Oil and Gas Company
 Permian District
 Post Office Box 1610
 Midland, Texas 79702
 Telephone 915 684 0100



February 14, 1986

Mr. J. T. Sexton
 Supervisor and Oil & Gas Inspector
 Oil Conservation Division
 P.O. Box 1980
 Hobbs, New Mexico 88240

RE: S. J. Sarkeys No. 3
 Recommendation for Revised Production Allocation
 Unit I - Section 23-T21S-R37E
 Lea County, New Mexico

Dear Mr. Sexton:

A workover on the ARCO-operated S. J. Sarkeys No. 3 has recently been completed to: 1) test the Wantz Abo zone; and 2) add perforations and acidize the Blinebry and Drinkard zones. The Wantz Abo was tested in order to gain information that will be used in an application requesting approval to triple downhole commingle the Blinebry, Drinkard and Wantz Abo. The Wantz Abo is now temporarily abandoned with the use of a retrievable bridge plug. The S. J. Sarkeys No. 3 is currently a downhole commingled Blinebry/Drinkard producer. Downhole commingling of the Blinebry and Drinkard zones in the S. J. Sarkeys No. 3 was approved by NMOCD Order No. DHC-290, and the Blinebry and Drinkard have been downhole commingled since November, 1980. Since perforations were added to both the Blinebry and the Drinkard, and since both zones were acidized, I recommend that we assign revised allocation factors to the downhole commingled Blinebry and Drinkard production.

After adding perforations and acidizing the Drinkard, the zone was swab tested for 28-3/4 hours and recovered 8 BO and 61 BW. After adding perforations and acidizing the Blinebry, the Blinebry was swab tested for 28 hours and recovered 38 BO and 122 BW. By normalizing the swab test data for the Blinebry and Drinkard to a 24 hour period, the production from each zone can be allocated as follows:

	<u>Oil</u>		<u>Water</u>	
	<u>BOPD</u>	<u>%</u>	<u>BOPD</u>	<u>%</u>
Blinebry	32.6	83	104.6	67
Drinkard	6.7	17	50.9	33
	<u>39.3</u>	<u>100</u>	<u>155.5</u>	<u>100</u>

Mr. J. T. Sexton
February 14, 1985
Page Two

Under NMOCD Order No. DHC-290, 80% of the oil and 91% of the gas was allocated to the Blinebry, and 20% of the oil and 9% of the gas was allocated to the Drinkard. Due to adding perforations and acidizing both the Blinebry and the Drinkard, I recommend that we adopt the following allocation factors for the S. J. Sarkeys No. 3:

	<u>Oil</u>	<u>Gas</u>	<u>Water</u>
Blinebry	83	91	67
Drinkard	17	9	33
	<u>100</u>	<u>100</u>	<u>100</u>

If you have any questions or comments, please call me at (915) 684-0157. A copy of NMOCD Order No. DHC-290 is attached. Thank you for your consideration.

Very truly yours,

Jack T. Lowder

Jack T. Lowder
Senior Engineer

JTL:tis
Attachments

cc: Ms. Kathryn Dickens - Hobbs
Mr. Kenneth Gosnell - MIO 310



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-8434

September 7, 1979

Arco Oil and Gas Company
P. O. Box 1610
Midland, Texas 79702

Attention: J. L. Tweed

Administrative Order No. DHC-290
S. J. Sarkeys Well No. 3
Unit I, Section 23, Township
21 South, Range 37 East, NMPM,
Lea County, New Mexico, Blinebry
Oil and Gas and Drinkard Pools

Gentlemen:

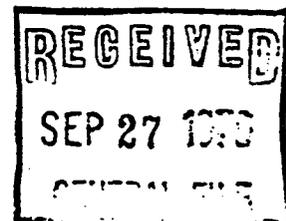
Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation and to commingle the production from both pools in the well-bore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and Division Order No. MC-1477-A, which authorized the dual completion and required separation of the zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C, total commingled oil production from the subject well shall not exceed 40 barrels per day and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 4000 by top unit allowable for the Blinebry Oil and Gas Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Upper Pool: 80%, Gas 91%
Lower Pool: 20%, Gas 9%

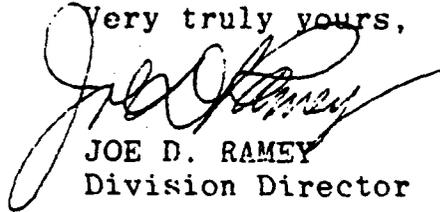


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DHC-290

Pursuant to Rule 303-C 5, the commingling authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Joe D. Ramey", written over the typed name and title.

JOE D. RAMEY
Division Director

JDR/CU/og

cc: Oil Conservation Division
Box 1980
Hobbs, New Mexico

<p>Gas Unit Getty 1 Dual "S"</p>	<p>Unit 2 Aztec Dual Gulmar NM 289 Continental, et al</p>	<p>1/4 Int. 15 Dual 11</p>	<p>Shell Coll Shell Chesher Shell Pumlee Fields Will N Terry</p>	<p>Shell HBP 058011</p>	<p>U.S. Will</p>
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<p>(AR 2344) Dual Shell 13-9188 State</p>	<p>Shell Moranco A-NM MD 37 1/4 Int Dual</p>	<p>Shell 082098 B-M-A</p>	<p>Summit Energy Gulf Union TD6000</p>	<p>Western Petro-Lewis Sole Lewis Burin NIA7638</p>	<p>Petro-Lewis</p>
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<p>Marathon C Tubb Warlick Charlie Bettis (S)</p>	<p>Dual JR Cone C. (Flag-Redfern) Dual Eubanks Charlie Bettis (S)</p>	<p>Gulf Naomi Keepum</p>	<p>Continental, et al Burin TD5966 (D/AO 7-5)</p>	<p>Continental, et al Burin TD5966 (D/AO 7-5)</p>	<p>Sole Mi</p>
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<p>Gulf Dual Warlick Charlie Bettis (S)</p>	<p>Texaco Dual Mattie Williams Tom Kenner (S)</p>	<p>A.R.Co. Mobil Dual Roy Barton</p>	<p>Chevron NO Nancy Stephens</p>	<p>Cont'l, et al H.B.P. 032096B A.R.Co. NM 3038 1/4 Int U.S.M.I. J.M. Owens (S)</p>	<p>Elliott Gil et al H B P. Solar Petro-Lewis Raso Le 061650B Dual Wayne Stephens</p>
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<p>Shell Warlick Charlie Bettis (S)</p>	<p>Dual Shell A.R.Co.</p>	<p>Mobil Dual Nancy Stephens Est</p>	<p>Cont'l, et al HBP 032096B NM 3038 1/4 Int. U.S.M.I. Del Rose Terry, etal (S)</p>	<p>Uztec Marathon H B P Petro-Lewis 0457443 0457088 Owens Fed U.S.M.I. Del Rose Terry etal (S)</p>	<p>Wayne</p>
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<p>Texaco Dual Millard Deck (S)</p>	<p>Texaco Achino Dual Harper Sun</p>	<p>Acoma Dual Harper Sun</p>	<p>Sun Kirby Gulf Chevron Sarkeys "Borkeys"</p>	<p>Petro-Lewis PST Solar Roy Holding TIA 7828</p>	<p>Solar Walker 10766 Imp Amer. Walker</p>
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<p>Exxon B Blindery Gulch (AR 58392)</p>	<p>A.R.Co. Dual Sun Triple Dual S-294</p>	<p>Sun Triple Dual S-294</p>	<p>(A.R.Co. DIR) Tex Pacific Repollo S-NM-Simmons 275 TD 8756 DM 20 46 Eva Owens Del Rose Terry, etal (S)</p>	<p>Petro-Lewis Argos Oil Jones</p>	<p>Imp Amer 10 8 73 9 26 73 Solar Merry X-mas TD 630</p>
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<p>Exxon P Dual Small Tra</p>	<p>A.R.Co. NM 124 A-95</p>	<p>Cont'l, et al 032098 A.M. Lockhart</p>	<p>Amoco C 13 (1/16 of 7/8 ORR) (to 6700, F.I. bel.)</p>	<p>A.R.Co. S-NM-367</p>	<p>A.R.Co. 1-71 0183703 NM 1290</p>
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S

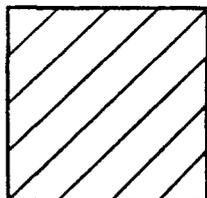
General Purpose Worksheet



Subject		Page No.	Of
File		By	Date

Texaco	ARCO	Mobil Williamson	Chevron
D.A. Williamson	Roy Barton	Nancy Stephens	
23		24	
Shell	ARCO	Mobil	
✓		Stephens Estate	R
Eastland	✓	R.E. Leeser	37
S.J. Sarkeys	S.J. Sarkeys	Nancy	E
Texaco	Acoma	Chevron	Kirby
	S.J. Sarkeys	Sun	
	Harper		
S.J. Sarkeys	S.J. Sarkeys	Sarkeys	Gulf Sarkeys
26			25

T-21-S



Dedicated Acreage

Blinebry : 40 acres

Drinkard: 40 acres

Wantz Abo: 40 acres

GAS-OIL RATIO TESTS

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL					
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.	GAS M.C.F.			
Sarkeys	3	I	23	21	37	02/17/86	P	-	44	9	24	29	40.3	38	232	6105		
																	Allovable increase	
																	DHC Hermit #290	
																	Oil	
Corrected Oil Allocation																		
																	83% Fly O&G	
																	17% Drkd	
																		100%

Completion: Scheduled Special

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

[Signature]
(Signature)

Services Supv.
(Title)

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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 allowable 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 0.80.

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

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

GAS-OIL RATIO TESTS

Operator ARCO Oil and Gas Company iv of Atlantic Richfield Company		Pool Wantz Abo		County Lea											
Address O. Box 1710, Hobbs, New Mexico 88240		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Scheduled <input type="checkbox"/> Special <input checked="" type="checkbox"/>											
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						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.	GAS M.C.F.
Sarkeys	3	I	23	21	37	01/11/86	P	22	33	24	2	40.3	18	64	3555
FILED FOR INFORMATION ONLY															

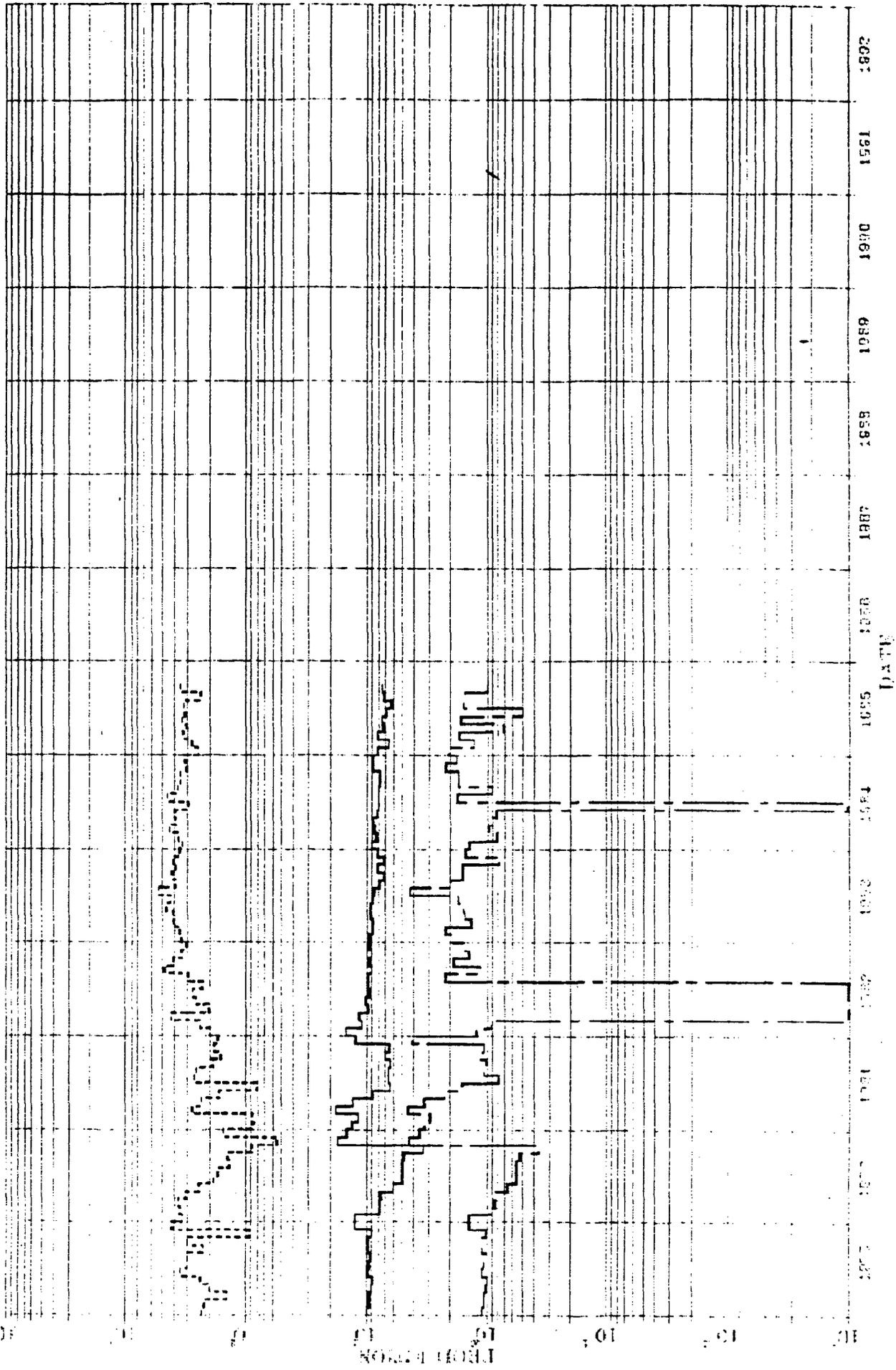
No well will be assigned an allowable greater than the amount of oil produced on the official test.
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowable 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.
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

[Signature]
 Services Supv.
 (Title)

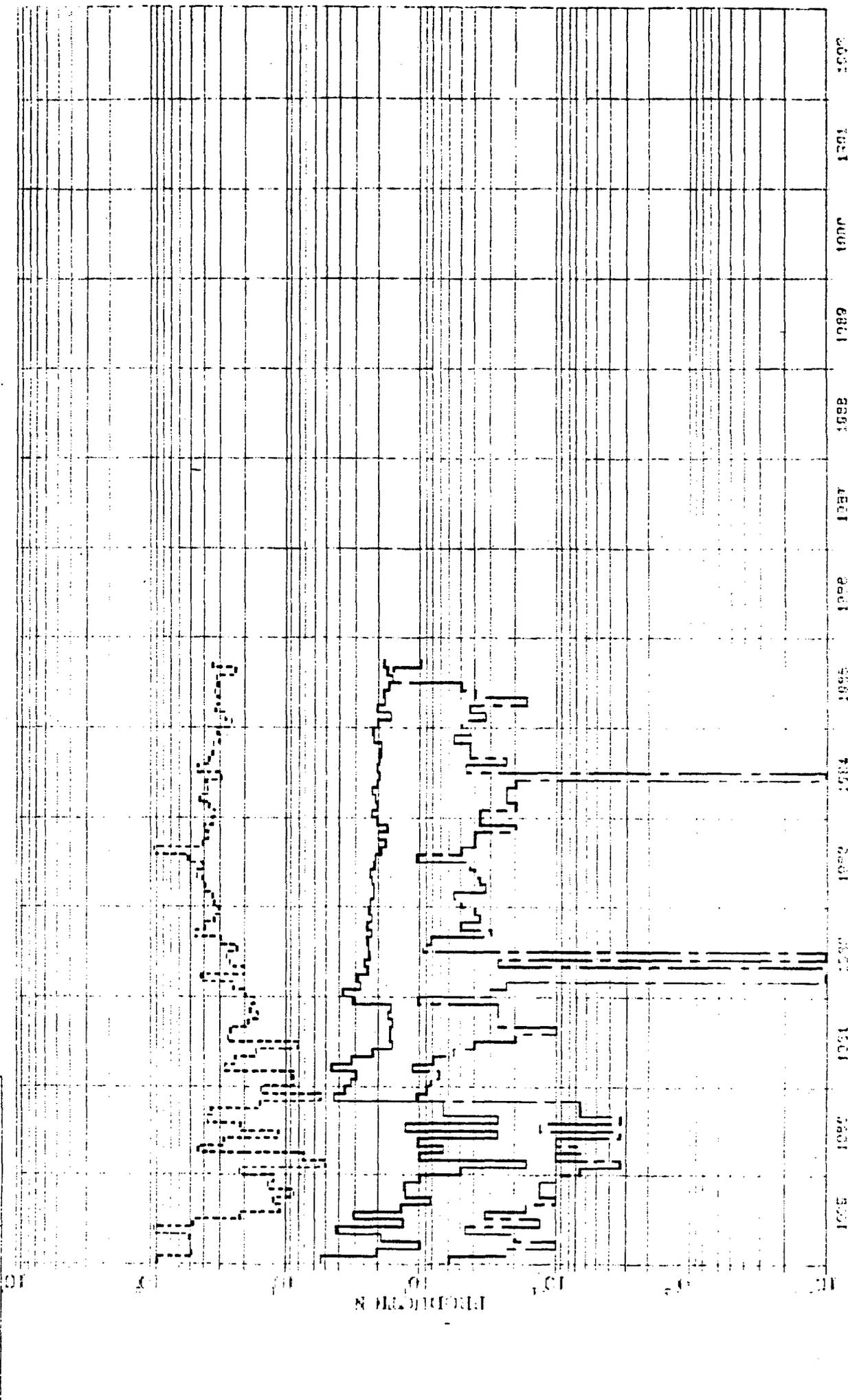
STATE NEW MEXICO COUNTY LEA
 FIELD: DENVER OIL AND GAS BL
 LEASE: S J SARKEYS WELL# 000003
 OPERATOR: ARCO OIL & GAS CO

OIL PRODUCTION, STB/D
 GAS PRODUCTION, MCF/D
 WATER PRODUCTION, STB/D



STATE NEW MEXICO COUNTY LEA
 FIELD DINKARD DR
 LEASE S J SARKIS WELLS 0000003
 OPERATOR ARCO OIL & GAS CO

OIL PRODUCTION STBO/D
 GAS PRODUCTION MCF/D
 WATER PRODUCTION STBW/D



1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999