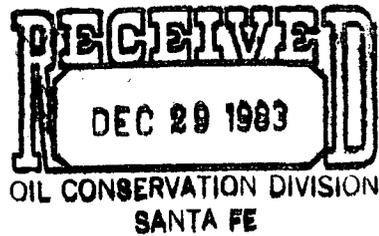


ARCO Oil and Gas Company  
Permian District  
Post Office Box 1610  
Midland, Texas 79702  
Telephone 915 684 0149  
Jerry L. Tweed  
District Engineer



December 20, 1983

Mr. Joe D. Ramey, Director  
New Mexico Oil Conversation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Application for Downhole Commingling of the  
Drinkard and Wantz Abo Pools  
S. J. Sarkeys Well No. 6  
Unit J, Section 23, T21S, R37E  
Lea County, New Mexico

ARCO Oil and Gas Company respectfully requests administrative approval under the provisions of Rule 303-C to downhole commingle the Drinkard and Wantz Abo pools in the S. J. Sarkeys Well No. 6. This well is located in Section 23, T-21-S, R-37-E of Lea County, New Mexico.

The S. J. Sarkeys Well No. 6 was initially completed in the Wantz Abo in August, 1965 producing 15 BOPD and no water. The Wantz Abo was abandoned in January 1967 and the well was recompleted in the Drinkard. The S. J. Sarkeys Well No. 6 is currently producing 3 BOPD, 22 MCFD and no water from the Drinkard. ARCO Oil and Gas Company would like to re-enter the Wantz Abo and downhole commingle the Wantz Abo with the Drinkard pool. The downhole commingling is necessary to permit efficient, economical production from both 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 to commingle the Drinkard and Wantz Abo pools is justified in the interest of conservation and to protect correlative rights.

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

Yours very truly,

J. L. Tweed

JLT/JTL:dmm  
Atts.

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. 6  
2310' FSL & 1980' FEL  
Section 23, T-21-S, R-37-E  
Lea County, New Mexico

Pools to be Commingled: Drinkard and Wantz Abo

(c) Acreage Dedication and Offset Ownership:

(See Attachments)

(d) 24-hour Productivity Test

(See Attached Form C-116)

(e) Decline Curve and Completion Resume

(See Attachments)

(f) Bottom Hole Pressures:

Based on 72-hour static fluid level surveys of nearby producers performed in December, 1983, the bottom hole pressures of the Drinkard and Wantz Abo are as follows:

<u>Formation</u>	<u>ARCO Well Tested</u>	<u>Direction &amp; Distance From Subject Well</u>	<u>Sub-Sea Depth</u>	<u>Bottom Hole Pressure (psig)</u>
Drinkard	S.J.Sarkeys #6	--	-3060	201
Wantz Abo	J.R.Cone B #3	South 7300'	-3614	183

(g) Fluid Incompatibility:

The Drinkard and Wantz Abo fluids are currently commingled at the battery. To date, there has been no evidence of fluid incompatibility.

(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 horizons. Downhole commingling the Drinkard and Wantz Abo will not jeopardize this stripper classification. The Drinkard and Wantz Abo are being commingled in surface storage facilities on the lease, therefore downhole commingling will not affect the price.

(i) Allocation of Production

The Drinkard is currently producing 3 BOPD and 22 MCFGD. The Wantz Abo is expected to initially produce 12 BOPD and 32 MCFGD.

	<u>Oil</u>	<u>Gas</u>
Drinkard	20%	41%
Wantz Abo	80%	59%

(j) All offset operators have been notified by registered mail of this downhole commingling application.

OFFSET OPERATORS

Gulf Oil Exploration and Production Company  
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

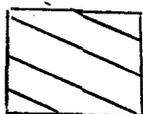
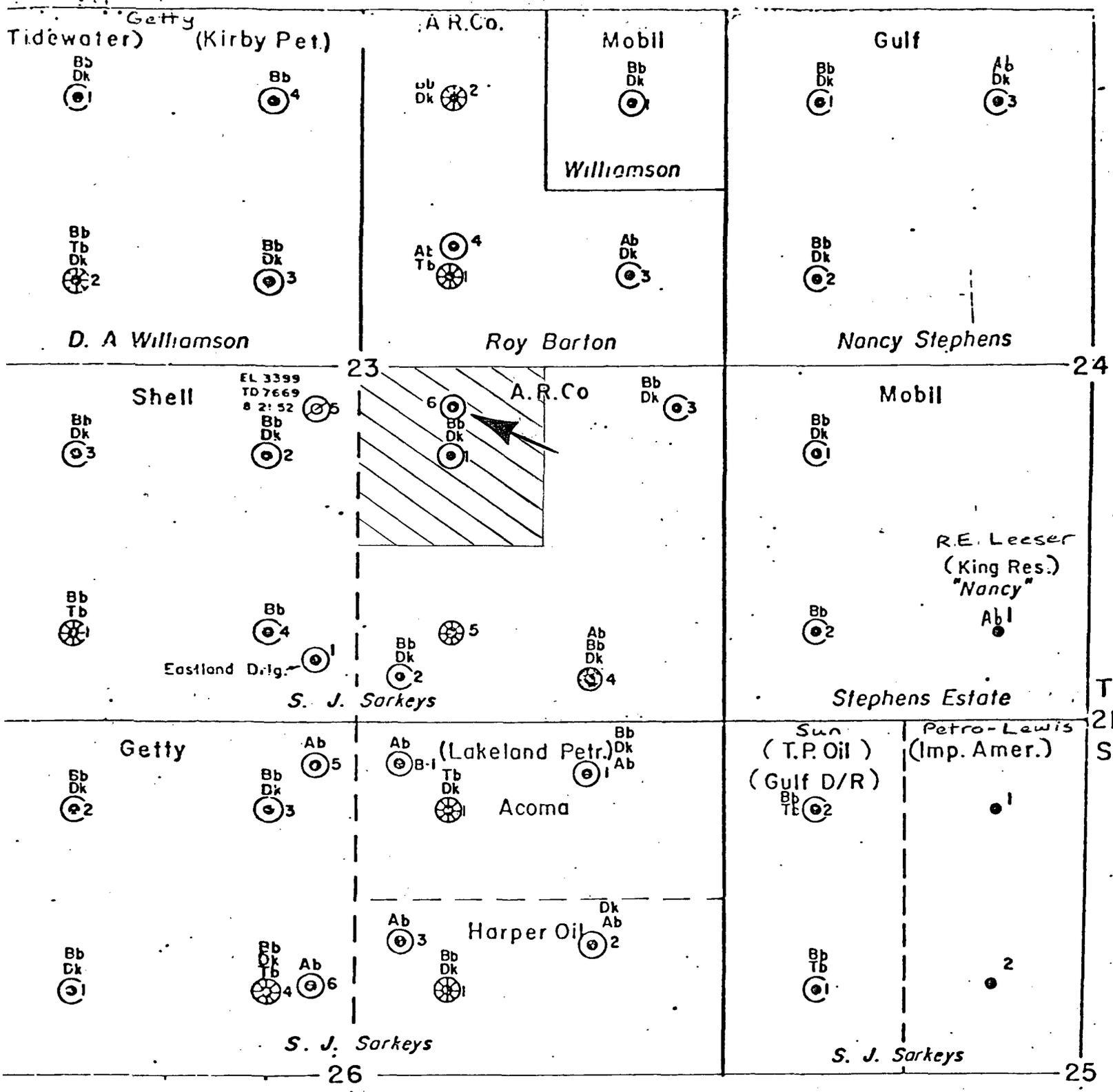
Getty Oil Company  
P. O. Box 730  
Hobbs, New Mexico 88240

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



Dedicated Acreage

Wantz Abo : 40 acres

Drinkard : 40 acres

GAS-OIL RATIO TESTS

Operator **ARC0 Oil & Gas Company** Pool **Drinkard** County **Lea**  
 Division of Atlantic Richfield Co. Drinkard

Address **P. O. Box 1710, Hobbs, New Mexico 88240**

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	Completion			GAS - OIL RATIO CU.F.T./BBL.		
		U	S	T						R	WATER BBL.	GRAV. OIL BBL.		OIL BBL.	GAS M.C.F.
Sarkeys	6	6	23	21	37	11-8-83	P	45#	3	24	0	38.9	3	22	7333
This report filed in support of Application for approval to dual Commingle down hole in the Drinkard and Wantz Abb.															

TYPE OF TEST - (X)  Special

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 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.  
 Well 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]*  
(Signature)

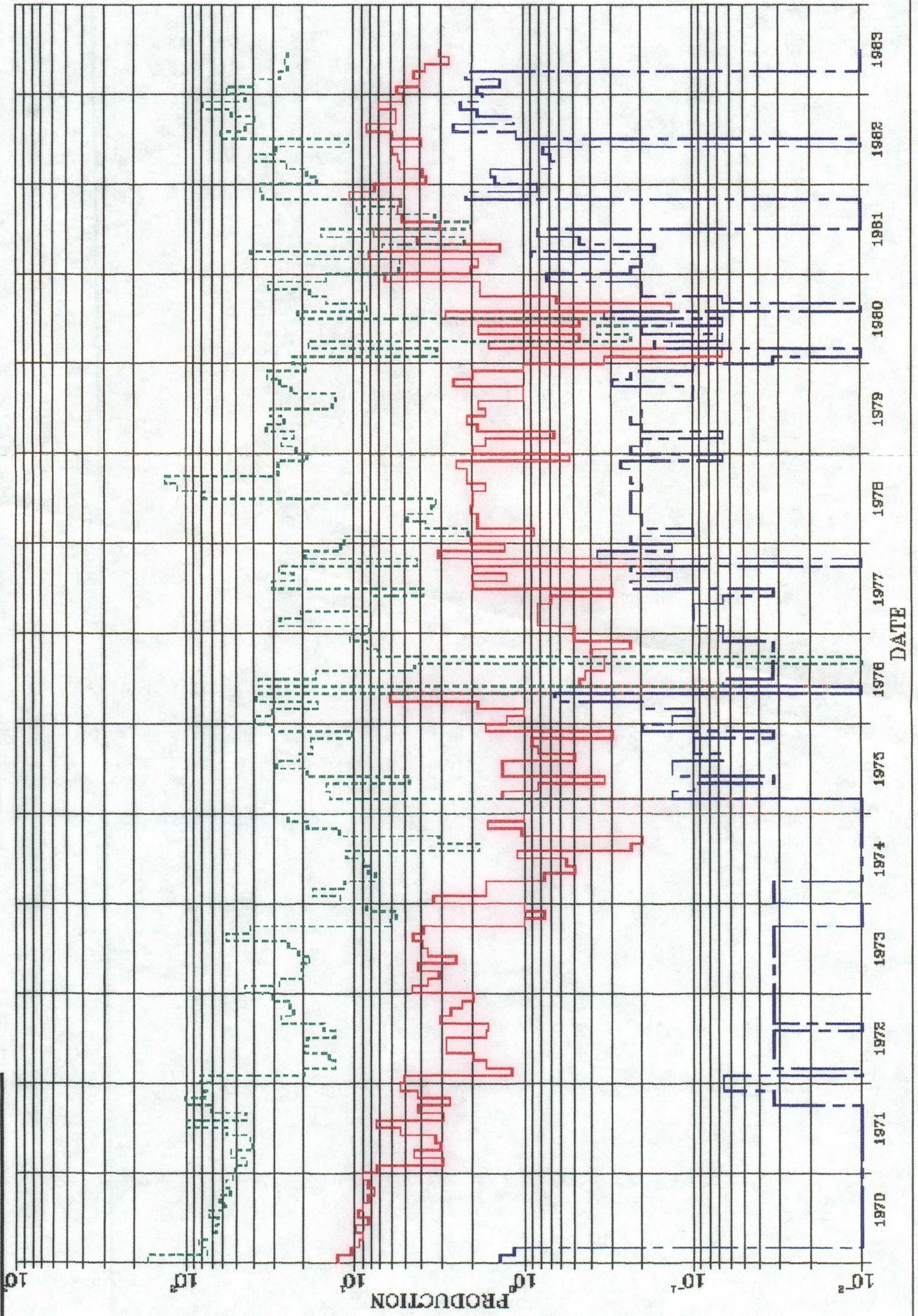
Engrg. Tech. Spec.

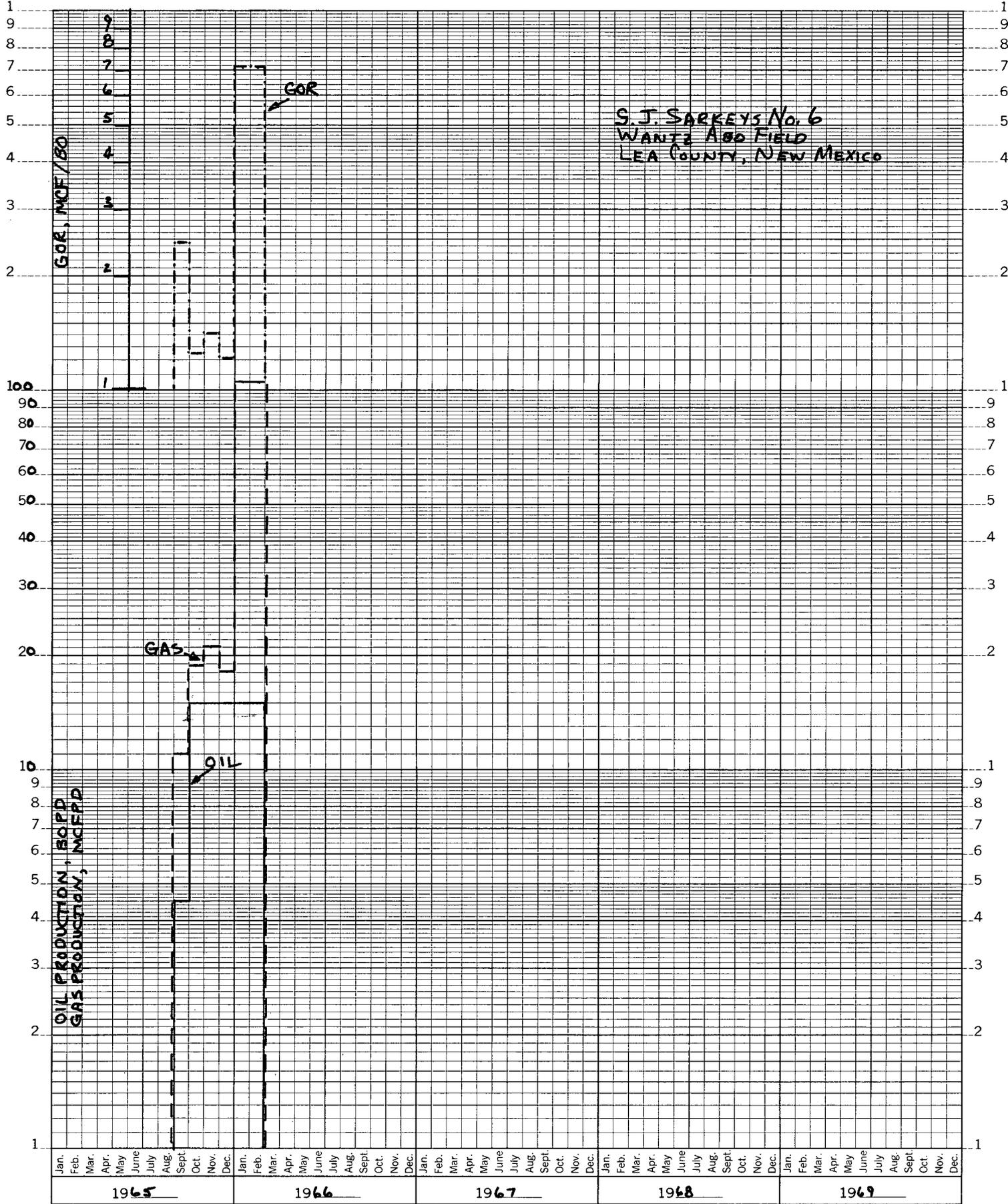
11-23-83

(Title)

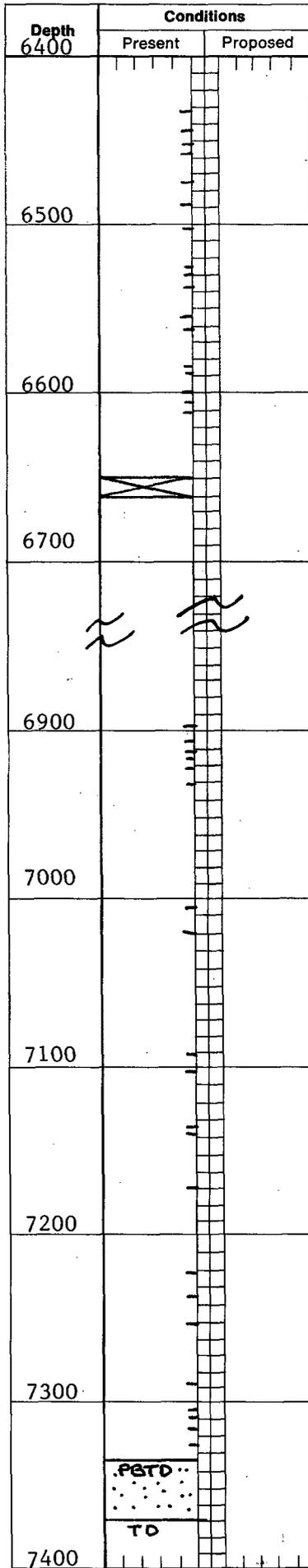
STATE: NEW MEXICO COUNTY: LEA DR  
FIELD: DRINKARD  
LEASE: S J SARKEYS WELL# 000006  
OPERATOR: ARCO OIL & GAS CO

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





AFE number \_\_\_\_\_  
 Date 12/20/83  
 State New Mexico



Lease & well number S. J. Sarkeys Well No. 6  
 Field Drinkard/Wantz Abo County Lea  
 Proposed operation: Acidize Drinkard, Open Wantz Abo and Downhole Commingle

Datum (GL)	Datum (X&X)	Datum (K&K)	Casing and Liner Detail					
			Size	Weight	BTM	TOP	Cement	TOC
Elev.	3396'		13-3/8"	48#	382'	surf	400 sx	circ
TD	7370'		8-5/8"	20# & 24#	3209'	surf	1175 sx	275'
PBTD	7335'		5-1/2"	14# & 15.5#	7370'	3052'	850 sx	3052'
Year Drld.	1965							

**Background and proposed procedure** (use additional sheets if needed)

**HISTORY:**

7-10-65 Perf'd Wantz Abo 6901, 10, 19, 24, 37, 7008, 22, 30, 50, 69, 95, 7100, 06, 25, 44, 76, 81, 7201, 12, 22, 42, 79, 95, 7311, 16, 21, 31-w/ 2 SPF (54 holes)

7-11-65 Acidized Abo 7279-7331' OA w/500 gal. 15% HCL  
 Acidize Abo 7125-7242' OA w/750 gal. 15% HCL  
 Attempted to treat 7279-7331' OA & communicated.

Attempted to treat 7095-7331' OA & communicated  
 Attempted to treat 7069-7331' OA & communicated  
 Attempted to treat 7030-7331' OA & communicated  
 Acidized Abo 7008-7331' OA w/1000 gal. 15% HCL

7-12-65 Swabbed Abo perfs 7008-7331' dry, last 8 hrs. no fluid entry.

7-14-65 Squeezed Abo perfs 6901-7331' w/500 gal. acid & 150 sx cmt.

7-17-65 Resqueezed Abo perfs 6901-7331' w/250 gal. acid and 140 sx cmt.

7-23-65 Perf'd Wantz Abo 6898, 6905, 11, 16, 21, 31, 7004, 20, 91, 7102, 33, 38, 70, 7221, 36, 51, 89, 7305, 10, 15, 25 w/2 SPF (42 holes). Acidized Abo 7289-7325' OA w/600 gal. 15% HCL. Acidized Abo 7221-7251' OA w/500 gal. 15% HCL. Acidized Abo 7133-7170' OA w/350 gal. 15% HCL.

7-24-65 Acidized Abo 7091-7102' OA w/250 gal. 15% HCL.  
 Acidized Abo 7004-7020' OA w/250 gal. 15% HCL.

Proposed by	Prepared by	Engineering	Production	Drilling	Operations
Initial					
Date					



OIL CONSERVATION DIVISION  
DISTRICT 1

RECEIVED  
DEC 30 1983  
OIL CONSERVATION DIVISION  
SANTA FE

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE December 27, 1983

RE: Proposed MC \_\_\_\_\_  
Proposed DHC   X   \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed NSP \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

ARCO Oil & Gas Co. S. J. Sarkeys No. 6-J 23-21-37  
Operator Lease and Well No. Unit, S - T - R

and my recommendations are as follows:

O.K.-----J.S.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,



/mc