

Shell Oil Company



P.O. Box 991
Houston, Texas 77001

December 16, 1982

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

SUBJECT: APPLICATION TO DOWNHOLE COMMINGLE
SHELL-SARKEYS NO. 2
1980 FSL AND 1980 FWL
SECTION 23, T-21-S, R-37-E
TUBB OIL AND GAS/DRINKARD POOLS
LEA COUNTY, NEW MEXICO

Shell Oil Company respectfully requests administrative approval under the provisions of Rule 303-C, to commingle within the wellbore, production from the Tubb Oil and Gas and Drinkard Pools in the subject well. Administrative Order No. R-131 effective 1-22-52, authorized the dual completion of the Drinkard and Blinebry zones. Administrative Order No. DHC-106 dated January 24, 1972, authorized the downhole commingling of the Blinebry and Drinkard zones which commenced March 16, 1972. Administrative Order MC-2078 dated 11-15-73, authorized the triple completion of gas from the Blinebry Gas Pool and the Tubb Gas Pool and oil from the Drinkard Pool. The Blinebry zone was squeezed off 6-26-82. Presently, with the indicated marginal production, we now propose to dowhole commingle production from the Drinkard and Tubb oil zones.

An exception to Rule 303-C has previously been granted to the Shell-State Section 15 Well No. 1, located in Unit Letter G, 1980 FNL and 1978 FEL, Section 15, T-21-S, R-37-E, which is approximately 1 1/4 mile north and 1/2 mile west of Sarkeys No. 2 (DHC-238 dated March 30, 1978).

This well qualifies for administrative approval in accordance with Statewide Rule 303, paragraph C; and in support thereof, the following facts are submitted:

1. The attached plat show the Sarkeys lease.
2. The latest tests are as follows:

Drinkard and Tubb: 8-28-82 13 BOPD + 1 BWPD + 276 MCFGPD.

Tubb: 10-12-82 6 BOPD + 0 BWPD + 220 MCFGPD.

Drinkard (by subtraction): 7 BOPD + 1 BWPD + 56 MCFGPD.

3. Neither zone produces more water than the combined oil limit as determined in Rule 303, paragraph c, (d).
4. Shell Oil company has commingled these fluids at the surface and has encountered no incompatibility problems; therefore, no reservoir damage will result from downhole commingling.
5. Surface commingling resulted in no reduction of oil value; therefore, downhole commingling will not reduce oil value. (PC-166, April 1978).
6. The ownership of both zones to be commingled is common.
7. A resume of the well's completion history is attached.
8. The bottom hole pressures are:
Drinkard: 179 hr SI - 334 psig.
Blinebry: 48 hr SI - 288 psig.
 We do not anticipate cross flow of fluids since the well will be maintained at pumped off conditions.
9. Commingling will not jeopardize the efficiency of future secondary operations in either zone.
10. Copies of this application have been furnished to all offset operators by certified mail.
11. Recommended oil and gas allotments would be as follows:

<u>Drinkard</u>		<u>Tubb</u>
54%	Oil	46%
20%	Gas	80%

Other supporting data attached is NMOCC Form C-116 for each zone and a schematic of the present and proposed downhole configuration.

If additional information is required, please advise.

Yours very truly,



A. J. Fore
Supervisor Regulatory and Permitting
Mid-Continent Division

DMB:dmb

Attachments

cc: State of New Mexico ✓
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Welton D. Moore
New Mexico Production Unit

OFFSET OPERATORS

SHELL - SARKEYS LEASE

ACOMA OIL CORPORATION
1116 CONTINENTAL LIFE BUILDING
FORT WORTH, TEXAS 76102

ARCO OIL AND GAS COMPANY
P. O. BOX 1610
MIDLAND, TEXAS 79702

CONOCO INC.
FIVE GREENWAY PLAZA E.
HOUSTON, TEXAS 77001

GETTY OIL COMPANY
P. O. BOX 730
HOBBS, NEW MEXICO 88240

GULF OIL EXPLORATION AND PRODUCTION COMPANY
P. O. BOX 670
HOBBS, NEW MEXICO 88240

RECEIVED

DEC 20 1982

O. C. A.
HODGS OFFICE

P26 8682734

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED - NOT FOR INTERNATIONAL MAIL

(See Reverse)

SENT TO GETTY OIL COMPANY STREET AND NO. P. O. BOX 730 P.O. STATE AND ZIP CODE HOBBS, NM 88240		POSTAGE \$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	\$
OPTIONAL SERVICES	SPECIAL DELIVERY RESTRICTED DELIVERY	\$
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	\$
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	\$
TOTAL POSTAGE AND FEES		\$
POSTMARK OR DATE	D. M. UPSON WCK 4435 DECEMBER 16, 1982	

CERTIFIED MAIL

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MAIL

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SENT TO CONOCO INC. STREET AND NO. 5 GREENWAY PLAZA E. P.O. STATE AND ZIP CODE HOUSTON, TEXAS 77001		POSTAGE \$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	\$
OPTIONAL SERVICES	SPECIAL DELIVERY RESTRICTED DELIVERY	\$
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	\$
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	\$
TOTAL POSTAGE AND FEES		\$
POSTMARK OR DATE	D. M. UPSON WCK 4435 DECEMBER 16, 1982	

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MAIL

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SENT TO ARCO OIL AND GAS CO. STREET AND NO. P. O. BOX 1610 P.O. STATE AND ZIP CODE MIDLAND, TEXAS 79702		POSTAGE \$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	\$
OPTIONAL SERVICES	SPECIAL DELIVERY RESTRICTED DELIVERY	\$
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	\$
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	\$
TOTAL POSTAGE AND FEES		\$
POSTMARK OR DATE	D. M. UPSON WCK 4435 DECEMBER 16, 1982	

CERTIFIED MAIL

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MAIL

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SENT TO ACOMA OIL CORPORATION STREET AND NO. 1116 CONTINENTAL LIFE BLDG P.O. STATE AND ZIP CODE FORT WORTH, TX 76102		POSTAGE \$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	\$
OPTIONAL SERVICES	SPECIAL DELIVERY RESTRICTED DELIVERY	\$
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	\$
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	\$
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	\$
TOTAL POSTAGE AND FEES		\$
POSTMARK OR DATE	D. M. UPSON WCK 4435 DECEMBER 16, 1982	

CERTIFIED MAIL

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MAIL

PS Form 3800, Apr. 1976

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NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

SENT TO
GULF OIL EXPL & PROD.
STREET AND NO.

P. O. BOX 670
P.O. STATE AND ZIP CODE

HOBBS, NM 88240

POSTAGE \$

CERTIFIED FEE \$

SPECIAL DELIVERY
RESTRICTED DELIVERY

SHOW TO WHOM AND
DATE DELIVERED

SHOW TO WHOM, DATE
AND ADDRESS OF
DELIVERY

SHOW TO WHOM AND DATE
DELIVERED WITH RESTRICTED
DELIVERY

SHOW TO WHOM, DATE AND
ADDRESS OF DELIVERY WITH
RESTRICTED DELIVERY

OPTIONAL SERVICES
RETURN RECEIPT SERVICE

TOTAL POSTAGE AND FEES \$

POSTMARK OR DATE
D. M. UPSON
WCK 4435
DECEMBER 16, 1982

PS Form 3800, Apr. 1976

CERTIFIED
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MAIL

PS Form 3800, Apr. 1976

COMPLETION HISTORY

SHELL - SARKEYS NO. 2

- 6-20-48 to 7-24-48: Drilled to Total Depth of 6610'.
- 7-28-48 to May 1952: Produced openhole interval 6460 to 6610'.
- June 1952: Opened Blinebry gas zone (5557' to 5670') to production; dually produced w/the Drinkard zone (6410' to 6447').
- March 1972 to December 1973: Produced Blinebry Oil and Drinkard zones commingled.
- 1-05-74: Opened Tubb gas zones (5987' to 6271') to production; triple completed w/Blinebry gas and Drinkard pools.
- June 1982: Squeezed Blinebry zone 5506' to 5672' w/200 sx Class "C" cmt + .3% Halad-4 + .4% CFR-2.
- July to August 1982: Test pumped Drinkard and Tubb zones commingled to obtain rates and pressures preparatory to downhole commingle.

GAS-OIL RATIO TESTS

LEASE NAME		WELL NO.		LOCATION			DATE OF TEST		TYPE OF TEST - (X)		CHOKED SIZE		TUBG. PRESS.		DAILY ALLOWABLE		LENGTH OF TEST HOURS		PROD. DURING TEST			SPECIAL	
				U	S	T	R																
SARKEYS		2		K	23	21	37	P		50		24		1		41.2		7		56		8000	
THE ABOVE TEST WAS DETERMINED BY SUBTRACTING THE TUBB PRODUCTION FROM THE COMMINGLED PRODUCTION.																							

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

No well will be assigned an allowable greater than the amount of oil produced on the official test.
 During gas-well 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 15.023 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.
 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.

J. A. Gette
 (Signature)
 J. A. Gette
 SUPERVISOR OIL ACCOUNTING

11-17-82
 (Title)

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NOBIS OFFICE

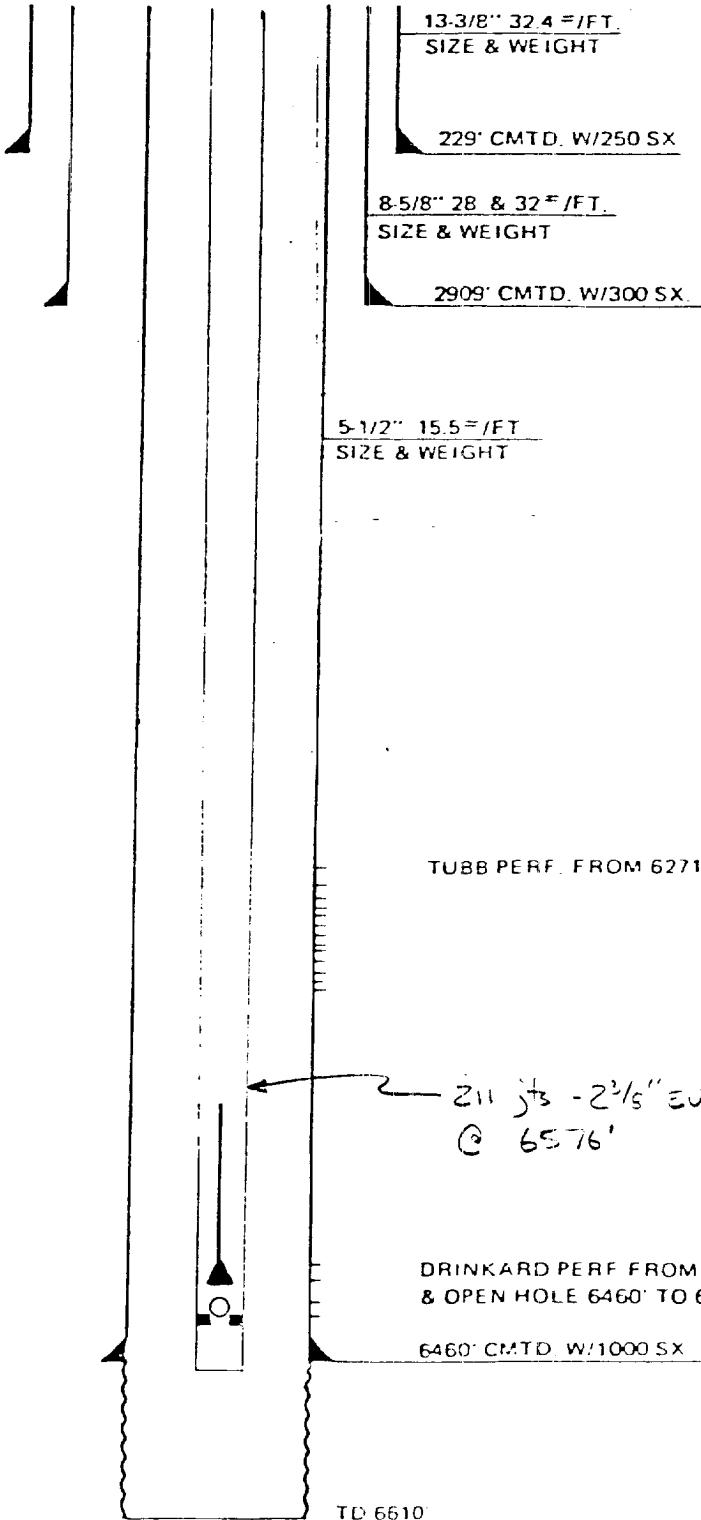
SHELL OIL COMPANY

SARKEYS LEASE WELL NO. 2

1980' FSL & FWL, SEC. 23, T-21-S, R-37-E

LEA COUNTY, NEW MEXICO

CURRENT
DOWN HOLE DRAWING



13-3/8" 32.4 #/FT.
SIZE & WEIGHT

229' CMTD. W/250 SX

8-5/8" 28 & 32 #/FT.
SIZE & WEIGHT

2909' CMTD. W/300 SX

5-1/2" 15.5 #/FT.
SIZE & WEIGHT

TUBB PERF. FROM 6271' TO 5987'

DRINKARD PERF FROM 6410' TO 6450'
& OPEN HOLE 6460' TO 6610'

6460' CMTD. W/1000 SX

TD 6610

ORIGINAL COMPLETION DATE
7-28-48

ELEVATION: 3410' DF

TD 6610'

TUBB. PERF. @ 6271', 6254',
 6249', 6243', 6232', 6221', 6199', 6184',
 6177', 6162', 6148', 6134', 6120',
 6111', 6103', 6089', 6068', 6057',
 6040', 6044', 6010', 5987'
 (22 HOLES)

DRINKARD OPEN HOLE FROM 6610'
TO 6460' AND PERF SELECTED
FROM 6450' TO 6410'

CSG. 13-3/8" CEMENT CIRCULATED
8-5/8" CEMENT CIRCULATED
5-1/2" FREEZE POINT 900'
FROM SURFACE BY STRESS-
STRAIN MEASUREMENT.

2 1/2" JTS - 2 1/2" EVE END
@ 6576'

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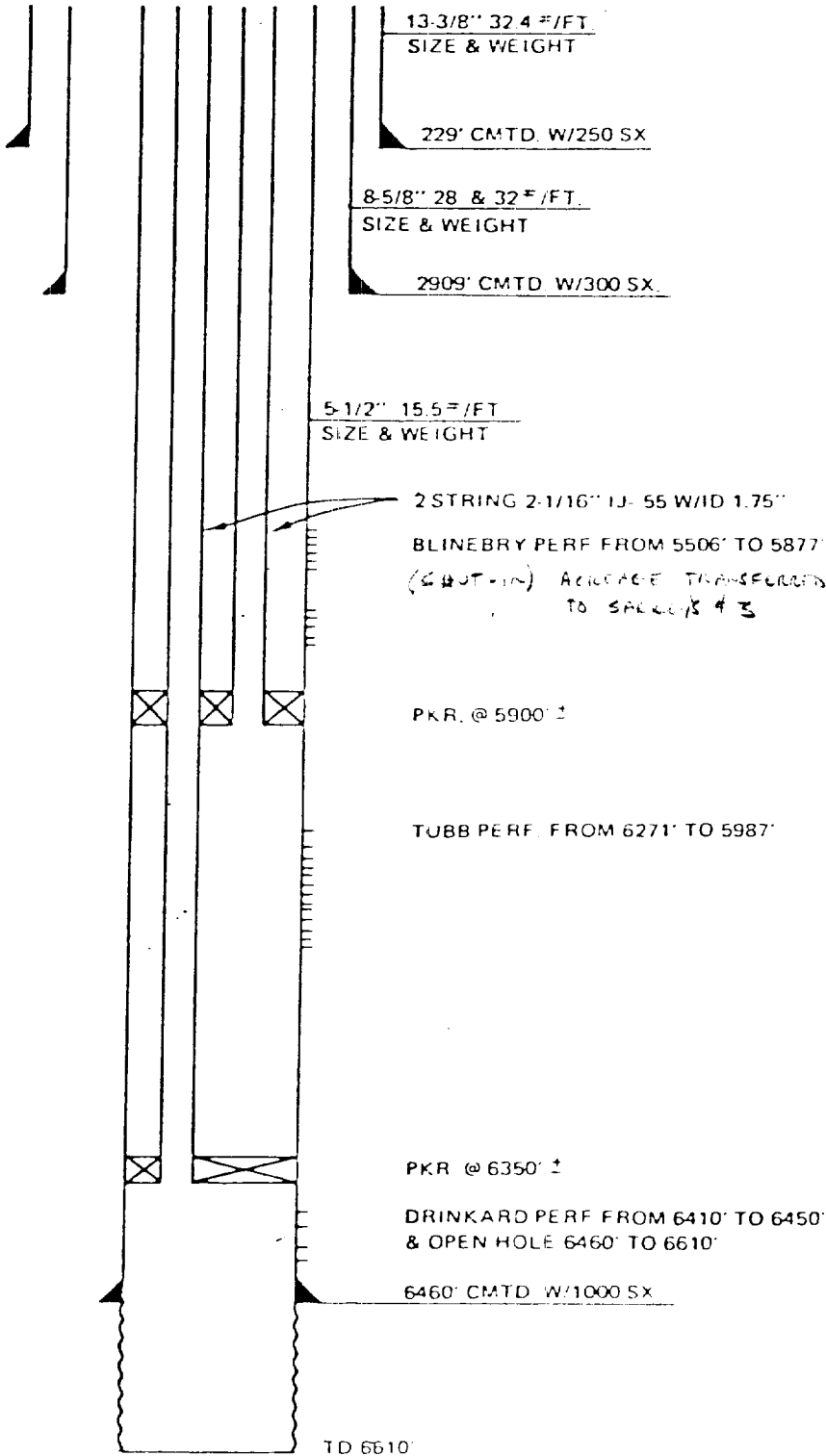
DEC 20 1982

CLERK
HOBBAS OFFICE

SHELL OIL COMPANY
 MULTIPLE COMPLETE BLINEBRY, TUBB, & DRINKARD POOLS
 SARKEYS LEASE WELL NO. 2
 1980' FSL & FWL, SEC. 23, T-21-S, R-37-E
 LEA COUNTY, NEW MEXICO

PREVIOUS

DOWN HOLE DRAWING



ORIGINAL COMPLETION DATE

7-28-48

ELEVATION: 3410' DF

TD 6610'

PERF:

BLINEBRY: 5557' TO 5570', 5575'
TO 5582', 5588' TO 5638', 5651' TO
5670' (CEMENT SQUEEZED) AND @
5747', 5754', 5774', 5787', 5792',
5848', 5859', 5863', 5872', 5877',
AND PERF. @ 5672',
5664', 5636', 5624', 5618', 5609',
5603', 5593', 5580', 5566', 5556',
5538', 5506' (13 HOLES)

TUBB:

PERF. @ 6271', 6254',
6249', 6243', 6232', 6221', 6199', 6184',
6177', 6162', 6148', 6134', 6120',
6111', 6103', 6089', 6068', 6057',
6040', 6044', 6010', 5987'
(22 HOLES)

DRINKARD: OPEN HOLE FROM 6610'
TO 6460' AND PERF SELECTED
FROM 6450' TO 6410'

CSG. 13-3/8" CEMENT CIRCULATED
8-5/8" CEMENT CIRCULATED
5-1/2" FREEZE POINT 900'
FROM SURFACE BY STRESS-
STRAIN MEASUREMENT.

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U.S. DEPT. OF JUSTICE
HOUSING OFFICE

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HOUSE OFFICE