Memo

From
Gilbert P. Quintana

Petroleum Engineer

To File / Southland Royalty "A"
No. 4

Estimates of pressure are:

Hydrostatic Head Pressure + Flowing on Pumping Tbg Pressure Estimate Pressure

Note: Order PC-53

justifies item

No. 4. Surface

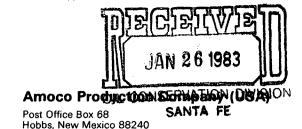
commingling of

the lease.

Oil Conservation Division P.O. Box 2088

Santa Fe, New Mexico 87501





S. J. Okerson District Superintendent

January 18, 1983

File: SJ0-127-WF

Re:

Application to Downhole Commingle

Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools

Lea County, New Mexico

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

Attention: Mr. Joe D. Ramey

Gentlemen:

Approval is hereby requested to downhole commingle the Southland Royalty "A" No. 4 in accordance with NMOCD Rule 303-C.

This well is located 660' FSL x 660' FEL, Section 4, T-21-S, R-37-E, Lea County, New Mexico. Currently, the Tubb (gas) is being pumped and the Drinkard (oil) is shut-in and will not flow. Reference: Administrative Order No. DHC-373 dated September 16, 1982. This Order gave us permission to downhole commingle the same two zones on our Southland Royalty "A" No. 2 (copy attached). Due to the marginal production of these two zones, commingling is the only economical way of producing this well. Attached is a map showing the subject well and the offset operators.

In support of our request, we submit the following facts:

1. The latest productivity tests are as follows:

	Date	BOPD	BWPD	MCFD	Perforations
Tubb	10-16-82	0	1	249	6176'-6392'
Drinkard	04-19-82	5	2	0	6519'-6655'

Copies of C-116's are attached.

2. Neither zone produces more water than the combined oil limit as determined in Rule 303-C.

- The produced fluids should be compatible and commingling these fluids should not result in precipitates which might damage the reservoirs.
- 4. Commingling of the Tubb and Drinkard will not jeopardize the efficiency of future secondary recovery operations in either zone.
- 5. No depreciation of value will occur from downhole commingling. Crude oils on the Southland Royalty "A" lease are commingled into a common tank battery and sold in mixed streams.
- 6. Expected daily production from the commingled zones are as follows:

	Tubb	Drinkard	Commingled
BOPD	- 1	5	6
BWPD	0.5	0.5	1
MCFD	300	75	375

See attached production decline curves.

- 7. Estimated bottom hole pressure for the Tubb is 430 psi based on a shut-in tubing pressure of 110 psi. Estimated bottom hole pressure for the Drinkard is 370 psi based on a shut-in tubing pressure of 40 psi.
- 8. Both zones to be commingled have common ownership.
- 9. Recommended oil and gas allotments are as follows:

	0il	Gas
Tubb	17%	80%
Drinkard	83%	20%

10. All offset operators have been notified by registered mail. (Copy of receipts and list of offset operators attached.)

If additional information is required, contact Charles Herring at 393-1781.

Yours very truly,

Attachments

cc: State of New Mexico

Energy and Minerals Department

Oil Conservation Division

P. 0. Box 1980 Hobbs, NM 88240

Mr. Jim Allen - Proration Dept., Houston, TX

OFFSET OPERATORS

Texaco, Inc. P. O. Box 728 Hobbs, NM 88240

Shell Oil Company P. O. Box 576, Woodcreek Houston, TX 77001

Gulf Oil Company P. O. Box 1150 Midland, TX 79701

Dallas McCasland P. O. Box 206 Eunice, NM 88231

Conoco, Inc. P. O. Box 460 Hobbs, NM 88240

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INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

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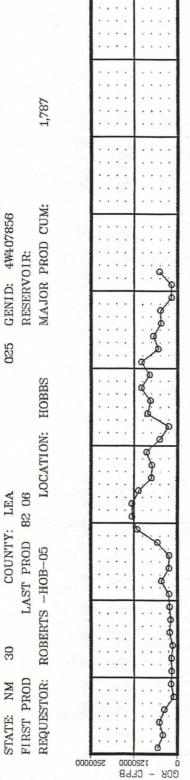
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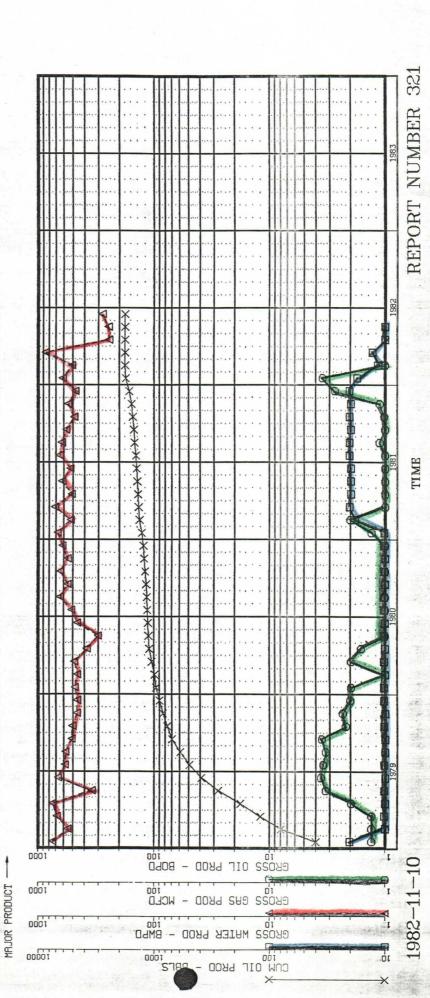


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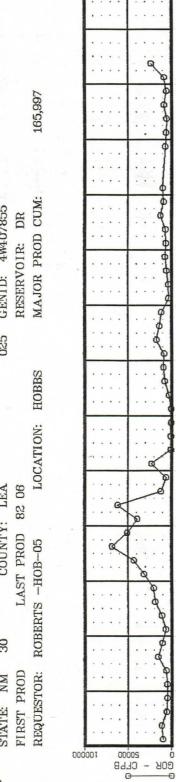
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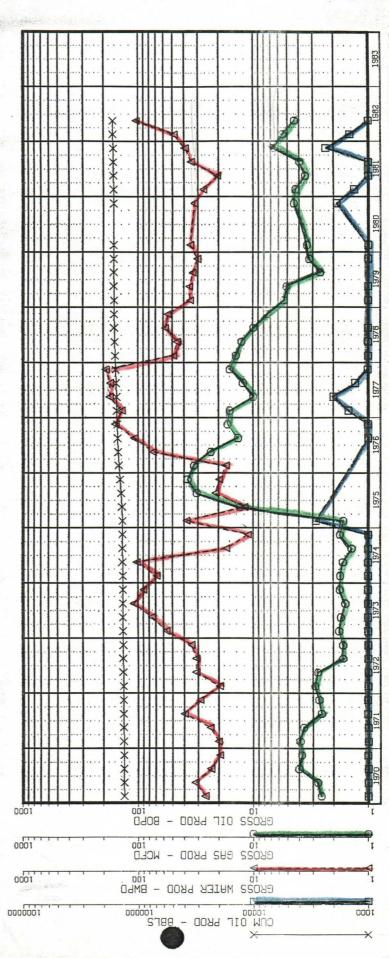
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F, O, UOX 2018 SANTA FE, NEW MEXICO 87501

Form C-1:8 Revised 10-1-78

GAS-OIL RATIO TESTS

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During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit ollowable 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 nasigned increased allowables when authorized by the Division.

will be 0.60. Gae volumes must be reperted in MCF measured at a pressure base of 15.025 psis and a temperature of 60° F. Specific gravity base

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

Nail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in necordance with Rule 131 and appropriate pool ruins.

0+2-NMOCD,H 1-File 533.11 1-LRB

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

Administrative Analyst

11-9-82

SANTA FE, NEW MEXICO 87501

Revised 10-1-78

GAS-OIL RATIO TESTS

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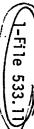
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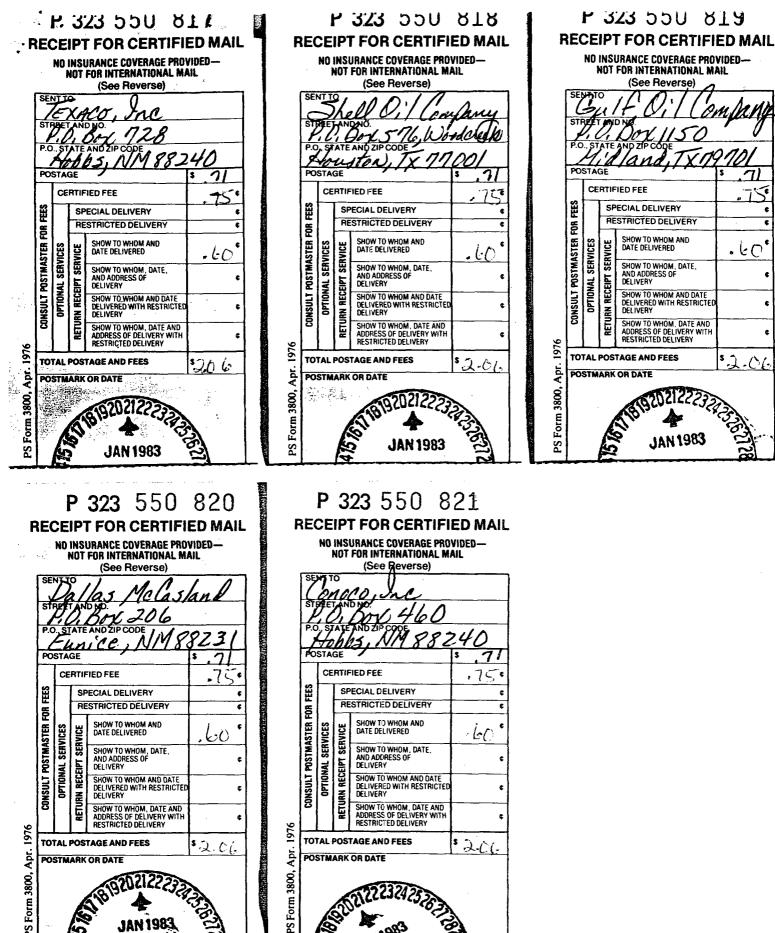


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I hereby certify that the above information is true and complete to the best of my knowledge and belief.

(Signature)
Analyst

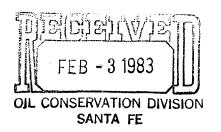
Admin. Analyst
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Amoco Production Company (USA)

Post Office Box 68 Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

January 18, 1983

File: SJO-122-WF

Re:

Downhole Commingling of

the Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools

660' FSL x 660' FEL

Section 4, T-21-S, R-37-E Lea County, New Mexico

Shell Oil Company P. O. Box 576, Woodcreek Houston, TX 77001

Gentlemen:

Amoco Production Company, as operator of the Southland Royalty "A" No. 4, hereby notifies you that we have applied to the NMOCD for Administrative Approval to downhole commingle the subject well. Commingling will enhance the economic operation of the well.

If you have no objections to the commingling, sign below and forward one copy to the NMOCD in Santa Fe, one copy to the NMOCD in Hobbs, one copy to this office, and retain one copy for your records. Addressed, stamped envelopes have been provided for your convenience.

Yours very truly,

APPROVAL

COMPANY: <u>SHELL OCI</u>

BY: a. Jane

DATE: 2/1/83



Amoco Produc Post Office Box 68 SANTA FF Hobbs, New Mexico 88240

S. J. Okerson District Superintendent

January 18, 1983

File:

SJ0-122-WF

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Downhole Commingling of

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660' FSL x 660' FEL

Section 4, T-21-S, R-37-E Lea County, New Mexico

Texaco, Inc. P. O. Box 728 Hobbs, NM 88240

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Yours very truly,

APPROVAL

COMPANY:

TEXACO INC.

BY: R.S. Lane

DATE: 2-2-83

Mark K. Mosley Division Manager **Production Department** Hobbs Division North American Production Conoco Inc. P. O. Box 460 (505) 393-4141

Hobbs, NM 88240 OIL CONSERVATION DIVISION SANTA FE

February 2, 1983

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

Attention: Joe Ramey

Gentlemen:

Downhole Commingling of the Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools 660' FSL X 660' FEL, Section 4, T-21-S, R-37-E, Lea County, New Mexico

Conoco Inc., as offset operator, has approved Amoco's request on the above subject. A copy of such approval is forwarded for your file.

Yours very truly,

memosky

HAI:mhe

CC: NMOCD - Hobbs

Amoco - Hobbs



Amoco Production Company (USA)

Post Office Box 68 Hobbs, New Mexico 88240

S. J. Okerson District Superintendent

January 18, 1983

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File: SJO-122-WF

Re:

Downhole Commingling of

the Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools

660' FSL x 660' FEL Section 4, T-21-S, R-37-E Lea County, New Mexico

RECEIVED HOBES DIVISION JAN 24 '83 $\overline{\mathbb{M}}$ n.

Conoco, Inc. P. O. Box 460 Hobbs, NM 88240

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OIL CONSERVATION DIVISION

SANTA FE

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Yours very truly,

APPROVAL

COMPANY:

DATE:



S. J. Okerson District Superintendent

January 18, 1983

File: SJO-122-WF

Re:

Downhole Commingling of

the Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools

660' FSL x 660' FEL

Section 4, T-21-S, R-37-E Lea County, New Mexico

Gulf Oil Company P. O. Box 1150 Midland, TX 79701

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Yours very truly,

APPROVAL:

COMPAMY: Gulf Oil Corporation

By: J. R. Frank

Chief Proration Engineer

Date: February 3, 1983



SANTA FE

OIL CONSERVATION DIVISIO Amoco Production Company (USA)

Post Office Box 68 Hobbs, New Mexico 88240

S. J. Okerson District Superintendent

January 18, 1983

File: SJO-122-WF

Re:

Downhole Commingling of

the Southland Royalty "A" No. 4 Drinkard and Tubb Oil and Gas Pools

660' FSL x 660' FEL

Section 4, T-21-S, R-37-E Lea County, New Mexico

Dallas McCasland P. 0. Box 206 Eunice, NM 88231

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Yours very truly,

APPROVAL

COMPANY: Dallas McCasland Production

DATE: 02-22-83