

**EXXON** COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

May 16, 1988

RECEIVED

MAY 17 1988

OIL CONSERVATION DIVISION

Downhole Commingling  
Simultaneous Dedication  
N. G. Penrose Well No. 1  
Unit B, Section 13, T22S, R37E  
Lea County, New Mexico

New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501

case 9398

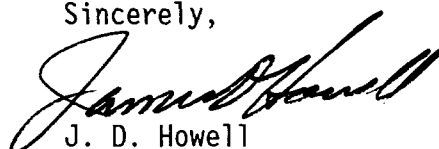
Attention: Mr. David R. Catanach

Exxon Corporation requests an exception to New Mexico Oil Conservation Division Rule 303-A to permit downhole commingling of production from the Blinebry Oil & Gas, Drinkard and Tubb Oil & Gas Pools in the captioned wellbore. Since we expect the Tubb Oil & Gas Pool completion to be gas, we also request simultaneous dedication of a 160 acre gas proration unit in the northeast quarter of Section 13 to N.G. Penrose Wells 1, 2 and 4. Please set this matter for consideration at the June 8, 1988 examiner hearing.

Well No. 1 is currently a marginal multiple completion in the Blinebry and Tubb. The Blinebry last tested 8 mcf/gpd, but has not produced since 1977. The Tubb last tested 17 mcf/gpd and appears to be loading with condensate. Exxon proposes to pull the current dual production equipment, add the Drinkard and install artificial lift to produce the remaining reserves in all three zones. Since separate testing of the zones before commingling would make the proposal prohibitively expensive, we ask that no such requirement be imposed.

A completed NMOCD Form C-102 for the Tubb is attached, as is the data described in Rule 303 (C)(2). All offset operators have been notified by copy of this letter and its attachments.

Sincerely,

  
J. D. Howell

JDH:jr  
Attachments

Certified Mail - w/attachments

c: Mr. James Bruce  
Offset Operators  
Mr. Jerry Sexton, NMOCD, Hobbs, NM  
2 copies to addressee

OFFSET OPERATORS TO  
EXXON'S N. G. PENROSE LEASE

Mabee Petroleum Corp.  
400 W. Illinois, Ste. 1500  
Midland, Texas 79701

Zachary Oil Operating Co.  
1212 Commerce Bldg.  
Fort Worth, Texas 76102

Marathon Oil Company  
Box 522  
125 W. Missouri St.  
Midland, Texas 79702

Fina Oil & Chemical Company  
6 Desta Drive  
Midland, Texas 79705

Texaco Producing, Inc.  
Box 3109  
500 N. Lorraine  
Midland, Texas 79701

Sun Exploration & Production Co.  
Box 1861  
Midland, Texas 79702

Sohio Petroleum Company  
10 Desta Drive, Ste. 600 West  
Midland, Texas 79705

J. H. Hendrix Corp.  
223 W. Wall  
525 Midland Tower Bldg.  
Midland, Texas 79701

Exxon Lse. No. 53159  
State Lse. No. \_\_\_\_\_  
Federal Lse. No. \_\_\_\_\_

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

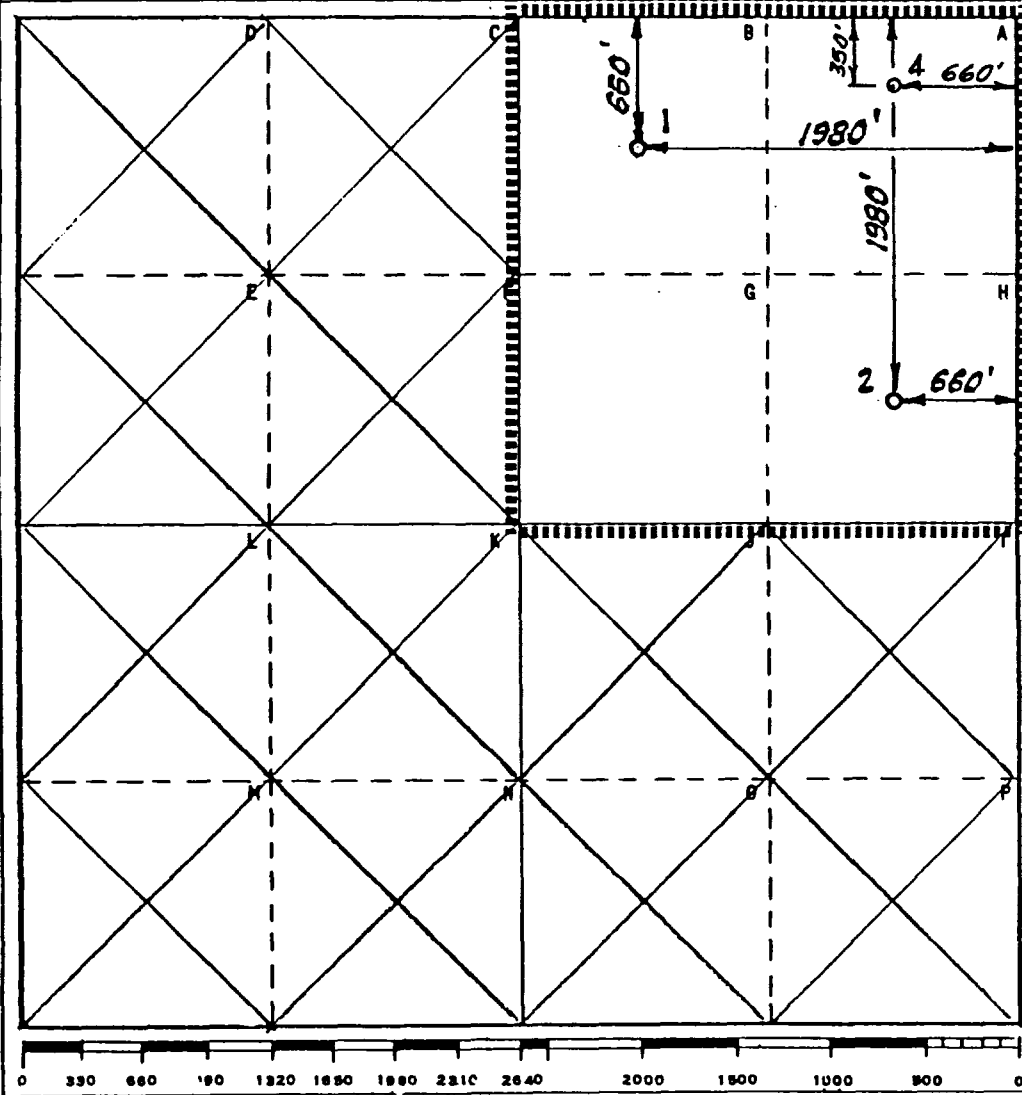
Operator Exxon Corporation			Lease N. G. Penrose		Well No. 1
Unit Letter B	Section 13	Township 22 South	Range 37 East	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 1,980 feet from the East line					
Ground Level Elev: 3,349' DF	Producing Formation Tubb	Pool Tubb Oil & Gas		Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests 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, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name James H. Hall  
Position Division Staff Engineer  
Company Exxon Corporation  
Box 1600 Midland, Texas  
Date 5/16/88

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.

Date Surveyed 3-4-75  
Registered Professional Engineer and/or Land Surveyor H.S. Hesterfeldt  
Certificate No. 1382

4 Miles SE of Eunice, New Mexico

C.E. Sec. File No. A-6858

Attachment 2  
N. G. Penrose Well No. 1  
Downhole Commingling - Data Required

To obtain approval for downhole commingling, we have enclosed the following data pursuant to Rule 303 (C) (2) (a through j):

1. Exxon's name and address:

Exxon Corporation  
P. O. Box 1600  
Midland, TX 79702

2. Lease name, well number, well location, and name of pools to be commingled:

N. G. Penrose Well No. 1, Unit B, Section 13, T-22-S, R37-E, Lea County, New Mexico. Pools to be commingled: Blinebry Oil & Gas, Drinkard, and Tubb Oil & Gas.

3. A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases:

Attached.

4. A 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone:

Tests for the Blinebry and Tubb on Form C-116 are attached. The Drinkard has not yet been perforated. Expected Drinkard production is 3.5 BOPD and 68.3 mcfpd.

5. A production decline curve for zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes:

Decline curves for the Blinebry and Tubb zones are attached. Note that the Blinebry has not produced since 1977. Test data indicates that this zone is capable of producing 8 mcfpd. Allocations shown in Item 9 are based on actual production where available and appropriate or on 1986 average per well production within the immediate area.

6. A current bottom hole pressure for each zone capable of flowing:

The well currently flows small amounts of gas from the Tubb but appears to be logged up with condensate and most probably will require artificial lift to properly produce. Measured shut-in bottomhole pressure is 487 psia for the Tubb, 488 psia for the Blinebry (estimated from static fluid level in the N. G. Penrose #1) and 1416 psia for the Drinkard (estimated from the static fluid level in the N.G. Penrose #3). When adjusted to a common average datum of 2776 feet subsea, the Blinebry pressure is 668

psia, the Tubb pressure is 474 psia, and the Drinkard pressure is 1246 psia. Although the lowest pressured zone is less than 50% of the pressure in the highest pressured zone, no crossflow will occur since the fluids will be artificially lifted.

7. A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore:

Produced fluids are already surface commingled with no compatibility problems.

8. A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

All of the crude and condensate currently produced from the Blinebry Oil & Gas, Tubb Oil and Gas, Drinkard and Granite Wash pools on this lease is already being surface commingled into one common stock tank, and sold as a mixture. Although unrelated to downhole commingling, increased gas production rates expected from artificial lifting the fluids may disqualify these completions from stripper gas classification.

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 a formula:

The following allocation percentages are suggested based upon the ratio of production from each zone:

	Expected Oil Production	Expected Gas Production
	Oil (BOPD)	Gas (MCFPD)
Blinebry Oil & Gas	4.6 (52%)	84.9 (41%)
Drinkard	3.5 (39%)	68.3 (33%)
Tubb Oil & Gas	0.8 (9%)	54.8 (26%)
Commingled Total	8.9 (100%)	208.0 (100%)

10. A statement that all offset operators and, in case of a well on Federal land, the United States Geological Survey, has been notified in writing of the proposed commingling:

By copy of this letter, we are notifying the offset operators of this proposed commingling.

11. In addition, working interest and royalty interest ownership in all zones are the same.



Blair's - Chevrolet - M.B.P.  
H.V. Pike, 101  
Ed. Toms, 101



GAS-OIL RATIO TESTS TEST PERIOD- JULY, AUG. SEPT.

Operator Exxon Corporation		Pool BLINEBRY OIL & GAS		County LEA										
Address P O Box 1600 Midland, Texas 79702		TYPE OF TEST - (X) <input type="checkbox"/> Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input type="checkbox"/>												
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBO. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL	
		U	S	T						R	WATER BBL.	GRAV. OIL	OIL BBL.	GAS M.C.F.
N.G. PENROSE	1	B	13	22	37	9/16/87 F			24				8	-

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 0.66.

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.

*Ante J. Aragon*  
(Signature)  
*Mr. Staff Jc. Arst*  
(Type)  
10-22-87  
(Date)

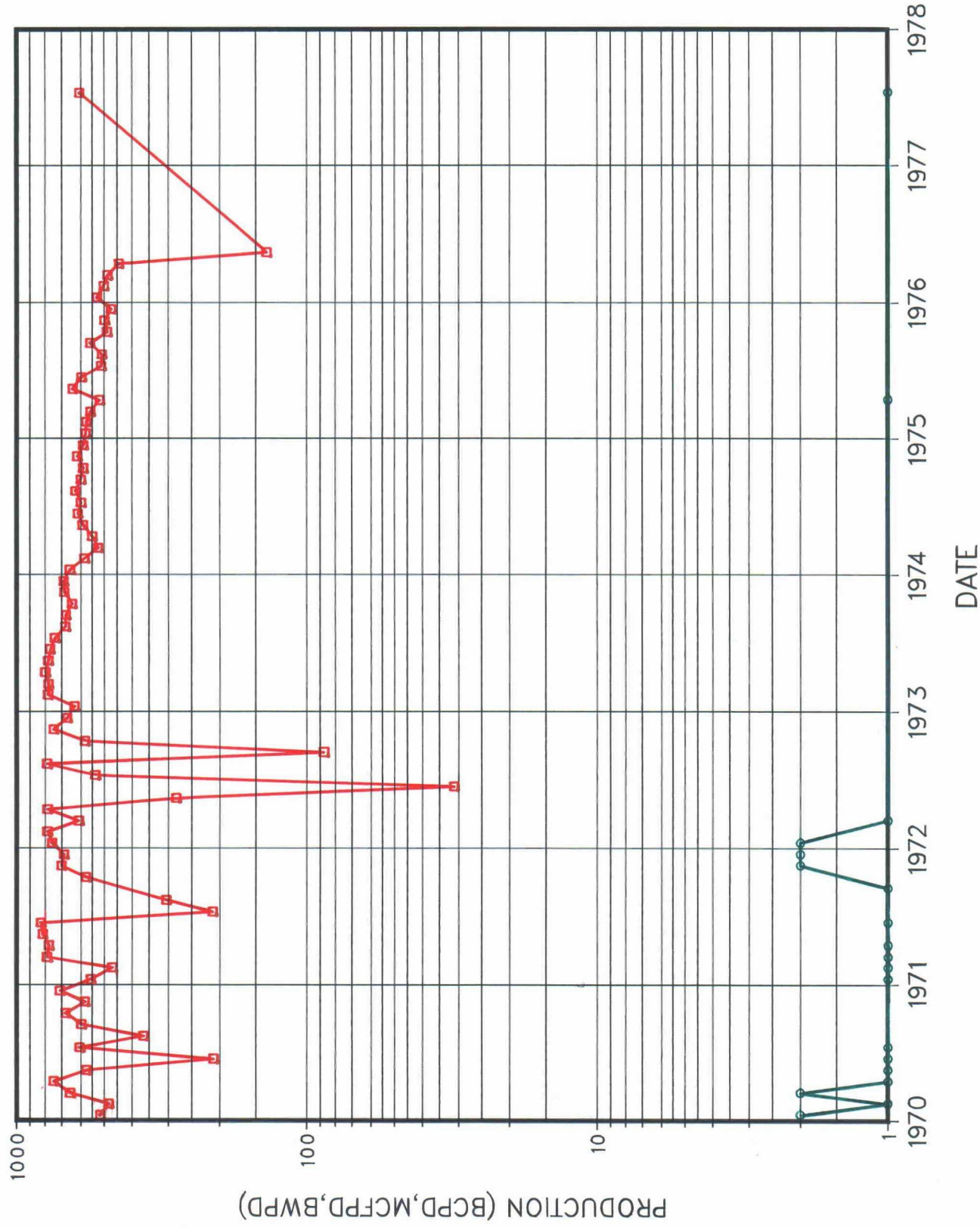
637

↓

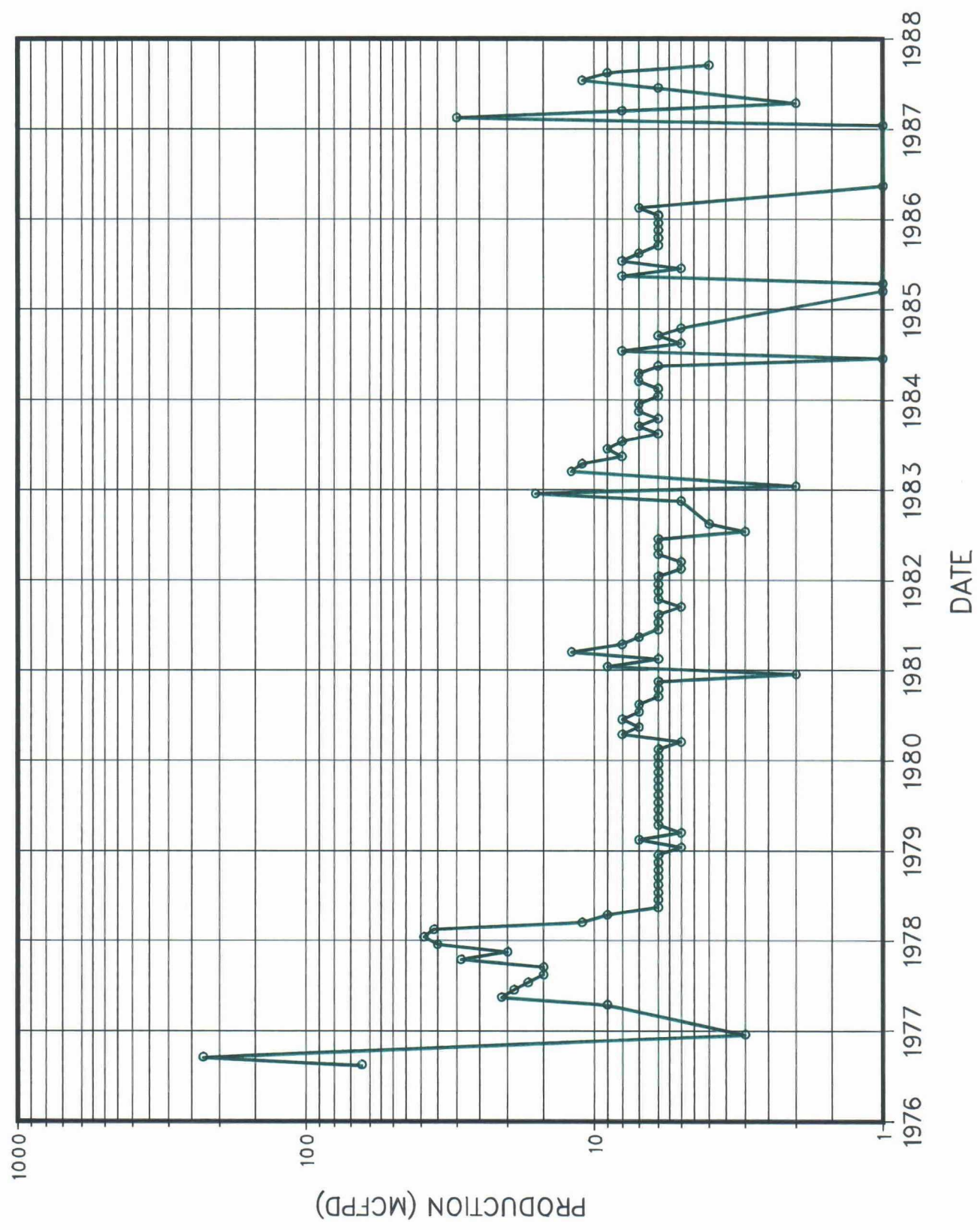
915/686-4491  
(1000)



# N G PENROSE #1 BLINEBRY PRODUCTION



# N G PENROSE #1 TUBB PRODUCTION



**EXXON** COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

May 16, 1988

RECEIVED

MAY 17 1988

OIL CONSERVATION DIVISION

Downhole Commingling  
Simultaneous Dedication  
N. G. Penrose Well No. 2  
Unit H, Section 13, T22S, R37E  
Lea County, New Mexico

New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501

*Case 9398*

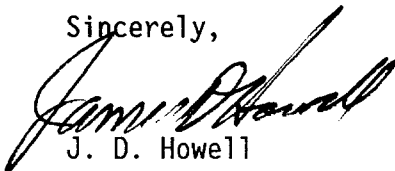
Attention: Mr. David R. Catanach

Exxon Corporation requests an exception to New Mexico Oil Conservation Division Rule 303-A to permit downhole commingling of production from the Blinebry Oil & Gas, Drinkard and Tubb Oil & Gas Pools in the captioned wellbore. Since we expect the Tubb Oil & Gas Pool completion to be gas, we also request simultaneous dedication of a 160 acre gas proration unit in the northeast quarter of Section 13 to N.G. Penrose Wells 1, 2 and 4. Please set this matter for consideration at the June 8, 1988 examiner hearing.

Well No. 2 is currently a marginal multiple completion in the Blinebry and Tubb. The Blinebry was potentialed for 59 mcfpd in 1977. The Tubb last tested 50 mcfcpd. Exxon proposes to pull the current dual production equipment, add the Drinkard and install artificial lift to produce the remaining reserves in all three zones. Since separate testing of the zones before commingling would make the proposal prohibitively expensive, we ask that no such requirement be imposed.

A completed NMOCD Form C-102 for the Tubb is attached, as is the data described in Rule 303 (C)(2). All offset operators have been notified by copy of this letter and its attachments.

Sincerely,

  
J. D. Howell

JDH:jr  
Attachments

Certified Mail - w/attachments

c: Mr. James Bruce  
Offset Operators  
Mr. Jerry Sexton, NMOCD, Hobbs, NM  
2 copies to addressee

OFFSET OPERATORS TO  
EXXON'S N. G. PENROSE LEASE

Mabee Petroleum Corp.  
400 W. Illinois, Ste. 1500  
Midland, Texas 79701

Zachary Oil Operating Co.  
1212 Commerce Bldg.  
Fort Worth, Texas 76102

Marathon Oil Company  
Box 522  
125 W. Missouri St.  
Midland, Texas 79702

Fina Oil & Chemical Company  
6 Desta Drive  
Midland, Texas 79705

Texaco Producing, Inc.  
Box 3109  
500 N. Lorraine  
Midland, Texas 79701

Sun Exploration & Production Co.  
Box 1861  
Midland, Texas 79702

Sohio Petroleum Company  
10 Desta Drive, Ste. 600 West  
Midland, Texas 79705

J. H. Hendrix Corp.  
223 W. Wall  
525 Midland Tower Bldg.  
Midland, Texas 79701



Exxon Lse. No. 53159

State Lse. No.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

Federal Lse. No. All distances must be from the outer boundaries of the Section.

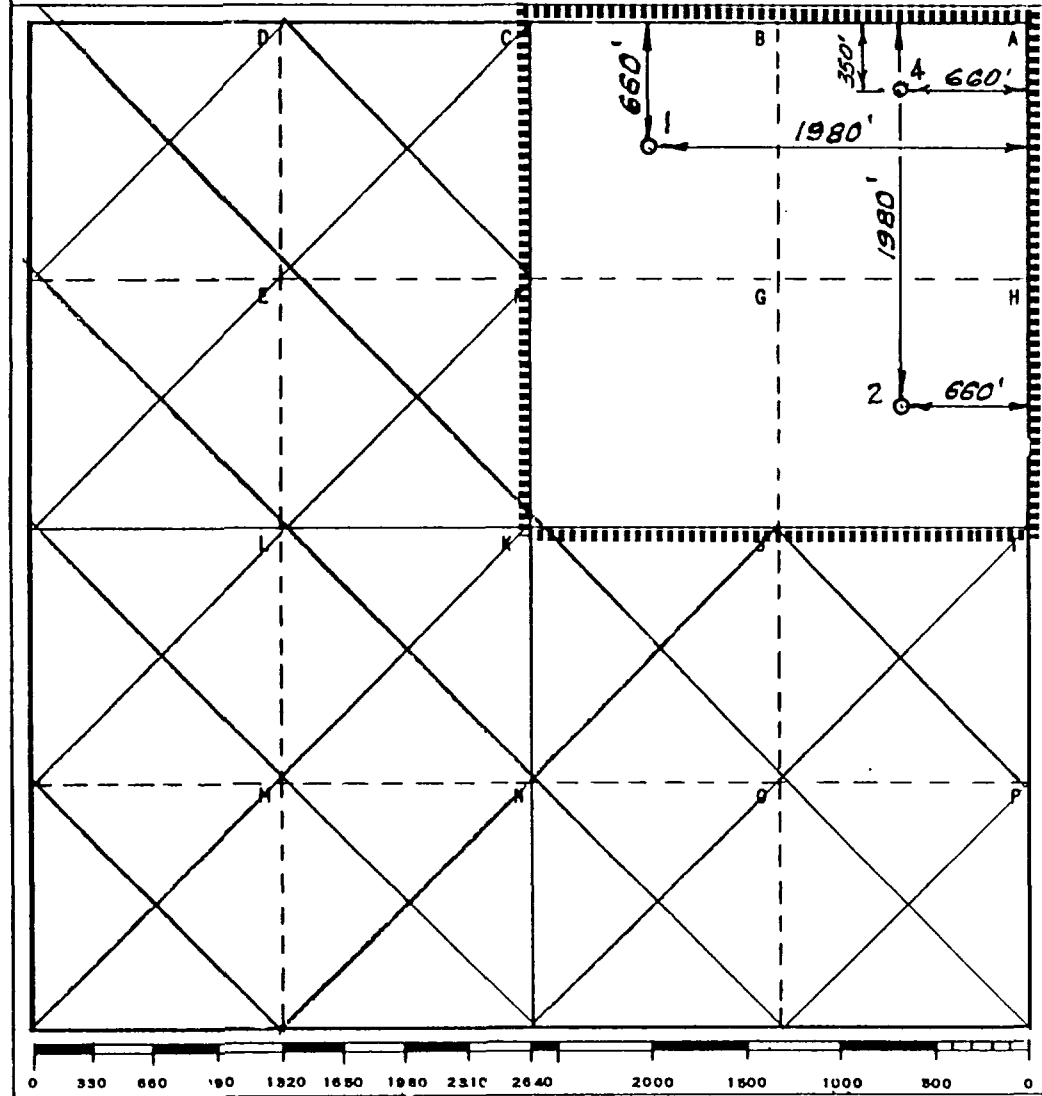
Operator Exxon Corporation		Lease N. G. Penrose		Well No. 2
Unit Letter H	Section 13	Township 22 South	Range 37 East	County Lea
Actual Footage Location of Well: 660 feet from the East line and 1,980 feet from the North line				
Ground Level Elev. 3,329	Producing Formation Tubb	Pool Tubb Oil & Gas	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests 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, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name *James P. Howell*  
Position *Division Staff Engr.*  
Company Exxon Corporation  
Box 1600 Midland, Texas  
Date *5/16/88*

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.

Date Surveyed  
3-4-75  
Registered Professional Engineer  
and/or Land Surveyor  
*H. S. Hunterfeldt*  
Certificate No.  
1382

Attachment 2  
N. G. Penrose Well No. 2  
Downhole Commingling - Data Required

To obtain approval for downhole commingling, we have enclosed the following data pursuant to Rule 303 (C) (2) (a through j):

1. Exxon's name and address:

Exxon Corporation  
P. O. Box 1600  
Midland, TX 79702

2. Lease name, well number, well location, and name of pools to be commingled:

N. G. Penrose Well No. 2, Unit H, Section 13, T-22-S, R37-E, Lea County, New Mexico. Pools to be commingled: Blinebry Oil & Gas, Drinkard, and Tubb Oil & Gas.

3. A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases:

Attached.

4. A 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone:

A test for the Tubb on Form C-116 is attached. The Drinkard has not yet been perforated. Expected Drinkard production is 3.5 BOPD and 68.3 mcfpd. The Blinebry zone is completed in this well but last tested 59 MCFPD on potential test on 9/8/77. This zone has been shut-in since then and has never produced.

5. A production decline curve for zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes:

A decline curve for the Tubb zone is attached. The Blinebry has not produced since 1977 as noted in item 4 above. Allocations shown in Item 9 are based on actual production where available and appropriate or on 1986 average per well production within the immediate area.

6. A current bottom hole pressure for each zone capable of flowing:

Measured shut-in bottomhole pressure is 482 psia for the Tubb, 1092 psia for the Blinebry (estimated from static fluid level in the N. G. Penrose #2) and 1416 psia for the Drinkard (estimated from the static fluid level in the N. G. Penrose #3). When adjusted to a common average datum of 2771 feet subsea, the Tubb pressure is 482 psia, the Blinebry pressure is 1265 psia and the Drinkard pressure is 1244 psia.

The well currently flows small amounts of gas from the Tubb. The Tubb is not logged up and the Blinebry zone does not appear to be logged up with condensate. However, after commingling with the Drinkard zone the well will probably require artificial lift, which will be installed, in order to produce. Although the lowest pressured zone is less than 50% of the pressure in the highest pressured zone, no crossflow will occur since the fluids will be artificially lifted.

7. A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore:

Produced fluids are already surface commingled with no compatibility problems.

8. A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

All of the crude and condensate currently produced from the Blinebry Oil & Gas, Tubb Oil and Gas, Drinkard and Granite Wash pools on this lease is already being surface commingled into one common stock tank, and sold as a mixture. Although unrelated to downhole commingling, increased gas production rates expected from artificial lifting the fluids may disqualify these completions from stripper gas classification.

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 a formula:

The following allocation percentages are suggested based upon the ratio of production from each zone:

	Expected Oil Production		Expected Gas Production	
	Oil (BOPD)		Gas (MCFPD)	
Blinebry Oil & Gas	4.6	(52%)	84.9	(41%)
Drinkard	3.5	(39%)	68.3	(33%)
Tubb Oil & Gas	0.8	(9%)	54.8	(26%)
Commingled Total	8.9	(100%)	208.0	(100%)

10. A statement that all offset operators and, in case of a well on Federal land, the United States Geological Survey, has been notified in writing of the proposed commingling:

By copy of this letter, we are notifying the offset operators of this proposed commingling.

11. In addition, working interest and royalty interest ownership in all zones are the same.







GAS-OIL RATIO TESTS TEST PERIOD - AUG. SEPT., OCT.

Operator	Exxon Corporation	Pool	TUBB OIL & GAS	County	LEA							
Address	P O Box 1600 Midland, Texas 79702											
LEASE NAME	WELL NO.	LOCATION	DATE OF TEST	CHOKE SIZE	TSG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	Completion <input type="checkbox"/> Special <input type="checkbox"/>				
								WATER BBL'S	PROD. GRAV. OIL	OIL BBL'S	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL
NEW MEXICO 'V' STATE	11	K 10 21 37	10/1/87 F				24	2	35.0	5	28	5600
	5	M 10 21 37	10/11/87 F					2		2	333	-
NEW MEXICO 'S' STATE	20	E 2 22 37	8/5/87 F					2		2	5	-
	13	B 2 22 37	10/28/87 F					2		2	63	-
	23	P 2 22 37	10/28/87 F					2		2	243	-
N.G. PENROSE	1	B 13 22 37	10/1/87 F					2		2	17	-
N.G. PENROSE	2	H 13 22 37	10/28/87 F					2		2	50	-
TUBB GAS. COM. 1	1	O 10 21 37	10/19/87 F					2		2	38	-

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 14.73 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 201 and appropriate pool rules.

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

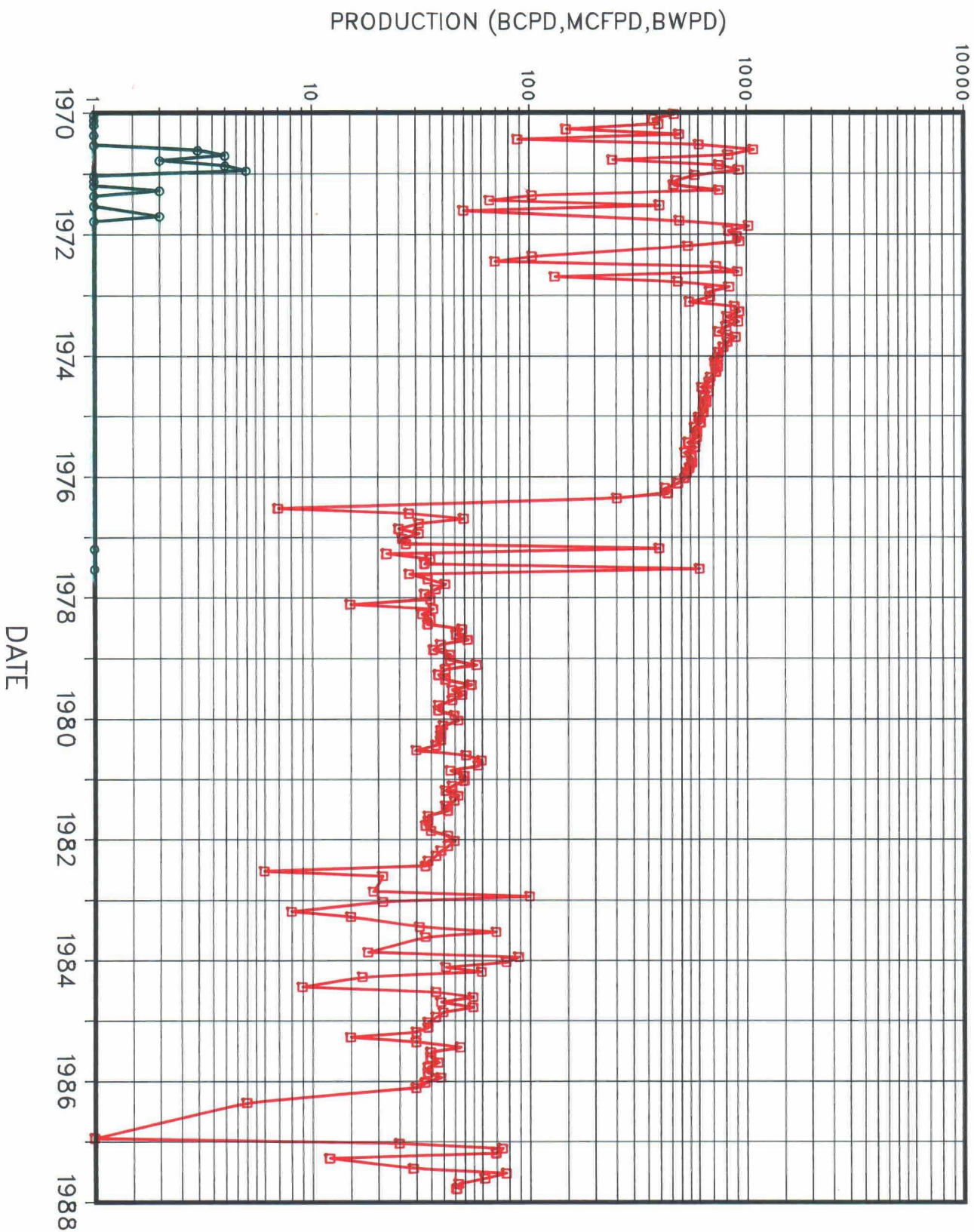
*Quintan J. Dougherty*  
(Signature)

*Dr. Steve O'Neil*  
(Title)

11-3-87

915/686-4491

# N G PENROSE #2 TUBB PRODUCTION



## Legend

- OIL PROD BOPD
- GAS PROD KCFPD

**EXXON** COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

*Henry Sahney 93 658 022*  
May 16, 1988

RECEIVED

MAY 17 1988

OIL CONSERVATION DIVISION

Downhole Commingling  
Simultaneous Dedication  
Unorthodox Gas Well Location  
N. G. Penrose Well No. 4  
Unit A, Section 13, T22S, R37E  
Lea County, New Mexico

New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, NM 87501

Attention: Mr. David R. Catanach

*9398*  
Exxon Corporation requests an exception to New Mexico Oil Conservation Division Rule 303-A to permit downhole commingling of production from the Blinebry Oil & Gas, Drinkard, Tubb Oil & Gas, and Wantz Granite Wash Pools in the captioned wellbore. Since we expect the Tubb Oil & Gas Pool completion to be gas, we also request:

- 1) approval of a non-standard gas well location 350' from the north line and 660' from the east line of Section 13, and
- 2) simultaneous dedication of a 160 acre gas proration unit in the northeast quarter of Section 13 to N.G. Penrose Wells 1, 2 and 4.

Please set this matter for consideration at the June 8, 1988 examiner hearing.

Well No. 4 is currently dead in the Granite Wash. Exxon proposes to add the Drinkard, Blinebry and Tubb zones, then install artificial lift equipment to produce the remaining reserves in all four zones. Since separate testing of the zones before commingling would make the proposal prohibitively expensive, we ask that no such requirement be imposed.

A completed NMOCD Form C-102 for the Tubb is attached, as is the data described in Rule 303 (C)(2). All offset operators have been notified by copy of this letter and its attachments.

Sincerely,

*James D. Howell*  
J. D. Howell

JDH:jr  
Attachments

Certified Mail - w/attachments

c: Mr. James Bruce  
Offset Operators  
Mr. Jerry Sexton, NMOCD, Hobbs, NM  
2 copies to addressee

A DIVISION OF EXXON CORPORATION

OFFSET OPERATORS TO  
EXXON'S N. G. PENROSE LEASE

Mabee Petroleum Corp.  
400 W. Illinois, Ste. 1500  
Midland, Texas 79701

Zachary Oil Operating Co.  
1212 Commerce Bldg.  
Fort Worth, Texas 76102

Marathon Oil Company  
Box 522  
125 W. Missouri St.  
Midland, Texas 79702

Fina Oil & Chemical Company  
6 Desta Drive  
Midland, Texas 79705

Texaco Producing, Inc.  
Box 3109  
500 N. Lorraine  
Midland, Texas 79701

Sun Exploration & Production Co.  
Box 1861  
Midland, Texas 79702

Sohio Petroleum Company  
10 Desta Drive, Ste. 600 West  
Midland, Texas 79705

J. H. Hendrix Corp.  
223 W. Wall  
525 Midland Tower Bldg.  
Midland, Texas 79701



All distances must be from the outer boundaries of the Section.

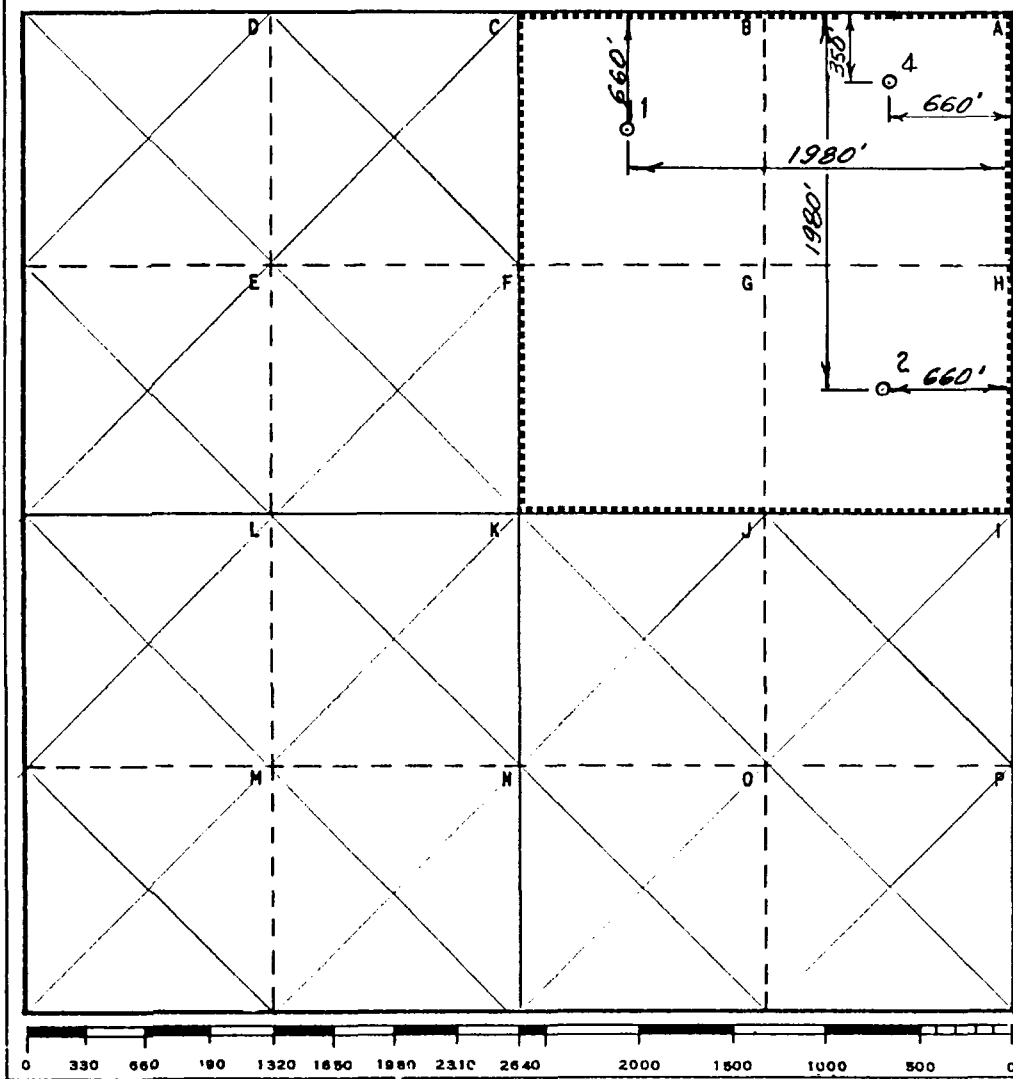
Operator Exxon Corporation			Lease N. G. PENROSE		Well No. 4
Unit Letter A	Section 13	Township 22 S	Range 37 E	County LEA	
Actual Footage Location of Well: 350 feet from the NORTH line and 660 feet from the EAST line					
Ground Level Elev: 3327'		Producing Formation TUBB		Pool TUBB OIL & GAS	Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests 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, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name <i>James H. Pennell</i>	Position <i>Division Staff Engineer</i>
Company Exxon Corporation Box 1600 Midland, Texas	
Date <i>5/16/88</i>	
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.	
Date Surveyed <i>6-29-87</i>	
Registered Professional Engineer and/or Land Surveyor Previously certified by Bruce R. Pennell	
Certificate No. 9062	

Attachment 2  
N. G. Penrose Well No. 4  
Downhole Commingling - Data Required

To obtain approval for downhole commingling, we have enclosed the following data pursuant to Rule 303 (C) (2) (a through j):

1. Exxon's name and address:

Exxon Corporation  
P. O. Box 1600  
Midland, TX 79702

2. Lease name, well number, well location, and name of pools to be commingled:

N. G. Penrose Well No. 4, Unit A, Section 13, T-22-S, R37-E, Lea County, New Mexico. Pools to be commingled: Blinebry Oil & Gas, Drinkard, Tubb Oil & Gas, and Wantz Granite Wash.

3. A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases:

Attached.

4. A 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone:

The latest test for the Wantz Granite Wash is attached. The other three proposed zones are not currently completed.

5. A production decline curve for zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes:

A decline curve for the Wantz Granite Wash is attached.

6. A current bottom hole pressure for each zone capable of flowing:

Estimated shut-in bottomhole pressures are 1002 psia for the Blinebry (estimated from static fluid level in the N. G. Penrose #2), 487 psia for the Tubb (measured in the N. G. Penrose #1), and 1416 psia for the Drinkard (estimated from static fluid level in the N. G. Penrose #3). The bottom hole pressure measured in the Wantz Granite Wash in the N. G. Penrose #4 is 881 psia. When adjusted to a common average datum of 2767 feet subsea, the Blinebry pressure is 1261 psia, the Tubb pressure is 472 psia, the Drinkard pressure is 1243 psia, and the Wantz Granite Wash pressure is 426 psia. Although the lowest pressured zone is less than 50% of the pressure in the highest pressured zone, no crossflow will occur since the fluids will be artificially lifted.

7. A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore:

Produced fluids are already surface commingled with no compatibility problems.

8. A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

All of the crude and condensate currently produced from the Blinebry Oil & Gas, Tubb Oil and Gas, Drinkard and Granite Wash pools on this lease is already being surface commingled into one common stock tank, and sold as a mixture. Although unrelated to downhole commingling, increased gas production rates expected from artificial lifting the fluids may disqualify these completions from stripper gas classification.

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 a formula:

The following allocation percentages are suggested based upon the ratio of production from each zone:

	Expected Oil Production		Expected Gas Production	
	Oil (BOPD)		Gas (MCFPD)	
Blinebry Oil & Gas	4.6	(20%)	84.9	(29%)
Drinkard	3.5	(15%)	68.3	(23%)
Tubb Oil & Gas	0.8	(3%)	54.8	(19%)
Wantz Granite Wash	14.0	(62%)	85.0	(29%)
Commingled Total	22.9	(100%)	293.0	(100%)

10. A statement that all offset operators and, in case of a well on Federal land, the United States Geological Survey, has been notified in writing of the proposed commingling:

By copy of this letter, we are notifying the offset operators of this proposed commingling.

11. In addition, working interest and royalty interest ownership in all zones are the same.







GAS-OIL RATIO TESTS

Operator Exxon Corporation		Pool WANTZ GRANITE WASH		County LEA										
Address P O Box 1600 Midland, Texas 79702		TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion		20-30 DAY TEST Special <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBO. PRESS.	DAILY ALLOW-ABLE	PROD. DURING TEST			GAS - OIL RATIO		
		U	S	T					R	WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	CU.FT./BBL
N.G. PENROSE	4	A	13	22	37	10/8/87 P				24	2	117	528	4513

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 well 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 14.73 psia and a temperature of 60° F. Specific gravity base will be 0.66.

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.

*Spita J. Longland*  
Signature  
*Sp. Staff Off. Asst.*  
Date  
11-25-87  
(Print)

# N G PENROSE #4 PRODUCTION

