EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

May 16, 1988

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

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,

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

Exxon Corporation
Exhibit No. 2 D
Cases 9398 and 9399
June 8, 1988 docket

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. _____ NEW MEXICO OIL CONSERVATION COMMISSION

State Lse. No. _____ WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

Operator	Lease	Well No.
Exxon Corporation	N. G. PENROSE	4

Unit Letter	Section	Township	Range	County
A	13	22 S	37 E	LEA

Actual Footage Location of Well:
350 feet from the NORTH line and 660 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3327'	TUBB	TUBB OIL & GAS	160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

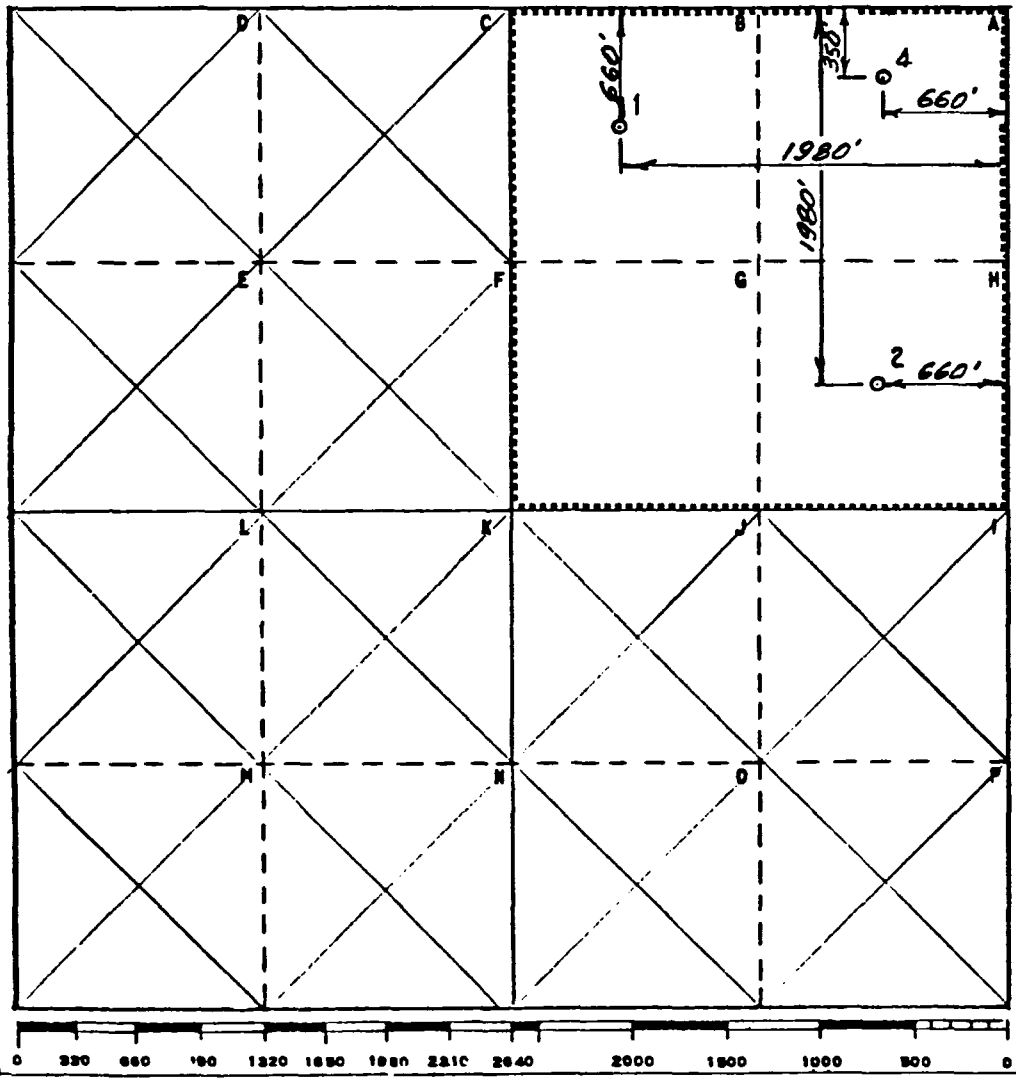
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Hoard

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: 6-29-87

Registered Professional Engineer and/or Land Surveyor

Previously certified by Bruce R. Pennell

Certificate No. 9062

4 mi. SE of EUNICE New Mexico

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

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:

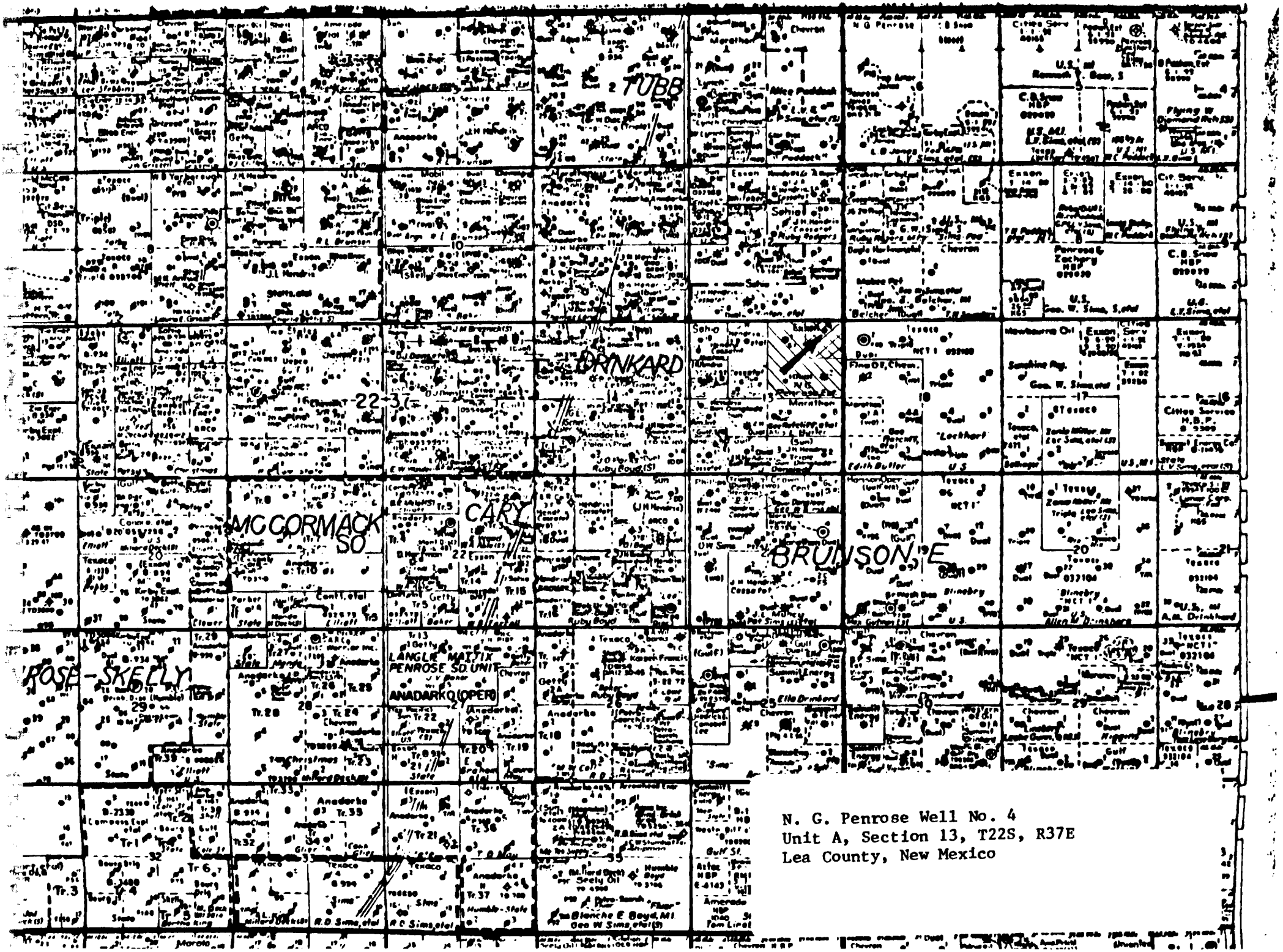
   The following allocation percentages are suggested based upon the ratio of production from each zone:

	Expected Oil Production Oil (BOPD)		Expected Gas Production 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.


TUBB
DRINKARD
MCCORMACK SO
CARY
BRUNSON, E
ROSE-SKELLY
LANGLIE MATTIX PENROSE SD UNIT
ANADARKO (OPER)
N. G. Penrose Well No. 4
Unit A, Section 13, T22S, R37E
Lea County, New Mexico

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

Operator	Pool	County
Exxon Corporation	WANTZ GRANITE WASH	LEA

Address	TYPE OF TEST - (X)	
P O Box 1600 Midland, Texas 79702	Scheduled ☐	Completion ☐ 20-30 DAY TEST Special ☒

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL.
N.G. PENROSE	4	A	13	22	37	10/8/87	P				24	0		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 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.

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.

Anita L. Douglas
(Signature)
Env. Staff Off. Asst.
(Title)
11-25-87
(Date)

N G PENROSE #4
PRODUCTION