EXON 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
A DIVISION OF COPICES OF TO A DIVISION OF COPICES OF TO A DIVISION OF THE PROPERTY OF TH

Exxon Corporation Exhibit No. 2D 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

Coperator Exagn Corporation Unit Letter A 13 Actual Footage Location of Well: 350 feet from the NORTH line and GGO feet from the EAST line Ground Level Elev: Producing Formation All distances must be from the outer boundaries of the Section. Well No. 4 PRange County A 13 Actual Footage Location of Well: TUBB OIL & GAS TUBB OIL & GAS	xxon Lse No		NEW MEXICO O				.AT	Form C-102 Supersedes C-128 Effective 14-65
Exam Corporation Less N. G. PENROSE Well No. 4	ederal Lse. No		All distances must b	e from the out	er boundaries of	the Section.		
Unit Letter A 13 Townstep A 13 Actual Foolings Lecention of Well: 350 Seet from the NORTH time and 660 (next from the EAST Indeed Level Letter) Freducing Forementon TUBB OIL & GAS 160 Acres 160 Acres TUBB OIL & GAS 160 Acres 160				Lease				Well No.
Actual Professional Learning and 1991. Actual Professional Learning and 1992. Actual Professional Learning and 1992. Actual Professional Professional More Professional Accusages and 1992. Actual Professional Accusages and 1992. Tubb Poll Poll & GAS Policies Accusages and 1992. It more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to workin insteres and royalty). 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 force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commin sion. CERTIFICATION I hereby certify their the information contained herein is two and camelars to the best of my howelvings and belief. I have by carrier, fines the well leaves to the search of the standard unit, eliminating such interests, has been approved by the Commin sion. CERTIFICATION I hereby certify their the well leaves to the search of the standard unit and the search of the sea	Exxon C		,			ROSE		4
Acres Acre		1	, ·	Rang		1	- A	
350 test from the NORTH time and 660 test from the EAST time TUBB OIL & GAS Deficiency According to the State of TUBB OIL & GAS Deficiency According to the surgest of the		<u> </u>	22 3		or E			
Dedicated Acresses Pool TUBB TUBB OIL & GAS Dedicated Acresses TUBB OIL & GAS Dedicated Acresses TUBB OIL & GAS Dedicated Acresses TUBB OIL & GAS	•		ORTH tine or	nd	660 tes	t from the	EAST	tine
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 workin 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-peoling, etc. Yes	Ground Level Elev:	Producing For		Pool				Dedicated Acreage:
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to workin 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 "ao," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) No silowable 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 haveby certify that the information consolidated or the formation of the property of			ted to the subject	 			marks on th	Acres
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 Commin sion. CERTIFICATION I hereby carrify that the information contained have in its true and campeter to the best of my knowledge and belief. Position Date I hereby carrify that the well facetion shown on this plot was picrated from the notes of early surveys made by me a under my supervision, and that the same is true and carrete to the best of my knowledge and belief. Deter Surveyed Common Texas Date Previously certified by Bruce R. Pennell	 If more the interest and If more that 	an one lease is ad royalty).	dedicated to the w	ell, outline	each and ide	ntify the	ownership U	nereof (both as to working
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. 1980	If answer in this form if No allowab forced-pool	is "no," list the of necessary.)	owners and tract de	scriptions v	which have ac	consolidat	ed (by com	munitization, unitization,
Company Exxon Corporation Box 1600 Midland, Texas Date I hereby certify that the well location shown on this plat was platted from field mates all actual surveys made by me of under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed G - 29 - 87 Registered Professional Engineer and/or Land Surveyor Previously certified by Bruce R. Pennell			099	1 G		660' .	best of my	certify that the information con- rein is true and complete to the r knowledge and belief.
shown on this plot was plotted from field notes of actual surveys made by me of under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed G-29-87 Registered Professional Engineer and/or Land Surveyor Previously certified by Bruce R. Pennell					2	660'	Company Box 1600 Date	Exxon Corporation / Midland, Texas
cand/or Land Surveyor Previously certified by Bruce R. Pennell				9			shown on notes of under my is true a knowledge	this plot was plotted from field actual surveys made by me or supervision, and that the same nd correct to the best of my and belief.
							end/or Land Previou Bruce	sly certified by R. Pennell

9062

1000

1500

2000

190 1320 1830 1980 Zaic 2640

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.

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 Oil (Production BOPD)	Expected Gas Gas (M	
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%)
<u>Wantz Granite Wash</u>	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.

in an early at the grown
No. 4 T22S, R37E 1co
Mex. 113
Penrose We A, Section County, New
N. G. Lea O
The Paris State of

BIDITY AS ANTERALS DEPARTMENT

A & POR DOLL BANTA PE, NEW MEXICO BYDO!

Pore C-116 Seviced 10-1-70

· .GAS-ÓIL RATIO TESTS

Opensor			I	1	T .	-		1				County					
Exxo	Exxon Corporation			4	200	717	WANTE CRANITE	16	ı	WASH	7	77	97				
•	O Box 1600 Midland, Texas 79702	exae 7	9702		•			TYPE OF TEST - (TYPE OF Test - IXI		Betrebates		Completers		-02	20-30 DAY	7 7857 (D)
		מבר		•	LOCATION		DATEOF	-	CHOKE	100	<u> </u>	2000	OWa	PROD, DURING TEST	ING T	П	0AS - 01L
	LEASE NAME		•	•	٠	8	7837	1740	BIZE :	-	ALLOM	****	#47EN 0	Ort.	906	erce.	CU.FT/BBL
ن ان	N.G. PENROSE	4	8	/3	22	37	10/8/81	8				4E	ø		211	228	4513
					•												
							•		•								
									•								
																	
	,		·							••							
· · · · · · · · · · · · · · · · · · ·														•=			
											·			~~~			
								\exists						\dashv	\dashv		·
	No well will be contained on ellewable greater than the assessed of oil ga Dwing govern sails test, each well shell be predaced at a sails and located by more than 25 persons, Operator is excessed to take advantage	and of the contract of the con					an the effects			1;	ds for the prod to which wall to	:1	I bereby certify is tree and complication	of Continue	4 6 6 6	he elected	I hereby certify that the above information is true and complete to the best of my know-
	derrosest allowables when authoritied by the Division. Our volumes want to reported in INCP account at a presoure hase of	and and	įį	i	į		15,023 peb end e tem		7	1	near of 60° P. Spettle granty bose	i	(•		
	s.co., Bryant crowng processo to Note of tolding processo has imp well productin	Į	. <u>.</u>	į	į	_	Stand mate							d	1/2		•

Hart Market and and one copy of this copies to the Abstract affice of the Hew Mostes Dit Conservation Medalos in accordance with

N G PENROSE #4