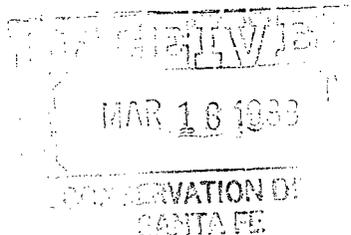


EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION



March 9, 1988

Downhole Commingling Request
N. G. Penrose No. 3
Unit G, Sec. 13, T-27-S, R-37-E
Lea County, New Mexico

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Attention: David R. Catanach

Exxon Corporation respectfully requests administrative approval to downhole commingle the Blinebry, Drinkard, and Wantz Granite Wash pools in the N. G. Penrose No. 3. This well is currently downhole commingled in the Drinkard and Wantz Granite Wash pools.

Additional data relative to this commingling is listed below:

1. A lease plat is attached showing the location of this well.
2. A C-116 is included providing a test for the commingled Drinkard/Granite Wash zone.
3. The Blinebry is not currently completed in this well. Expected production is 12 BOPD and 111 MCFPD.
4. A decline curve for the Drinkard/Granite Wash zone is attached.
5. Estimated shut-in bottomhole pressures are 1002 psia for the Blinebry (estimated from static fluid level in the N. G. Penrose No. 2) and 1416 psia for the Drinkard/Granite Wash (estimated from static fluid level in the N. G. Penrose #3). When adjusted to a common average datum of 2767 feet subsea, the Blinebry pressure is 1261 psia and the Drinkard/Granite Wash pressure is 1243 psia.
6. The well currently flows and does not require pumping. However, the pumping unit on the well will be reactivated if the zones do not flow after the additional commingling.

Mr. William J. LeMay
Page 2

7. Working interest and royalty ownership in all formations are the same.
8. The quality of the crude is virtually identical and downhole commingling will not reduce the commercial value. The value of the crude is as follows:

<u>Zone</u>	<u>Oil Gravity</u>	<u>Quality</u>	<u>01/28/88 Posted Price \$ bbl</u>
Blinebry	41.0	Sweet	16.50
Drinkard/Granite Wash	40.8	Sweet	16.50

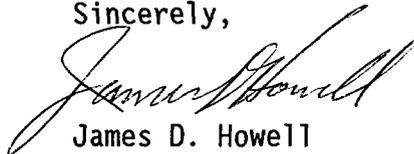
Crude and condensate currently produced from the Blinebry, Tubb, Drinkard and Granite Wash pools on this lease is already being surface commingled into one common stock tank, and sold as a mixture.

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

	<u>Oil</u>	<u>Expected Prod. BOPD</u>	<u>Gas</u>	<u>Expected Prod. MCFPD</u>
Blinebry Oil & Gas	48%	12	74%	111
Drinkard	48%	12	24%	36
Wantz Granite Wash	4%	1	2%	3

10. By copy of this letter, we are notifying the offset operators of this proposed commingling. If these operators have no objections we ask that they execute the attached waiver and return one copy to the NMOCD and another to my attention at the letterhead address.

Sincerely,



James D. Howell

JDH:def

Enclosure

xc: Offset Operators (Certified Mail)
NMOCD District I, Hobbs, New Mexico

<p>ROSE-SKELLY</p> <p>31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>	<p>W.C. CORMACK</p> <p>101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200</p>	<p>ANGADARCO (OPERA)</p> <p>201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300</p>	<p>DRINKARD</p> <p>301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400</p>	<p>BRUNSON</p> <p>401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500</p>	<p>BRUNSON</p> <p>501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600</p>	<p>BRUNSON</p> <p>601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700</p>	<p>BRUNSON</p> <p>701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800</p>	<p>BRUNSON</p> <p>801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900</p>	<p>BRUNSON</p> <p>901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990</p>	<p>BRUNSON</p> <p>991 992 993 994 995 996 997 998 999 1000</p>
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bx: BDT Field Rules File
D. J. Andrews
M. C. Welborn
L. J. Sohaney

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

GAS-OIL RATIO TESTS TEST PERIOD - JAN, FEB, MARCH, APR.

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	TYPE OF TEST - (X)	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BB
		U	S	T	R							WATER BBL'S.	GRAV. OIL	OIL BBL'S.	
N.G. PENROSE	31 G	13	22	37	3-1-87 P				10	24	2	5	25	5000	
DOWNHOLE COMMINGLING PERMIT # DHC 195								91% DENNKARD 9% WANTZ 100%					4.55 BOPD .45 5.00	BOPD	

Operator: Exxon Corporation
Address: P O Box 1600 Midland, Texas 79702
Pool: DRINKARD - WANTZ GRANITE WASH
County: LEA

Scheduled Special
Completion

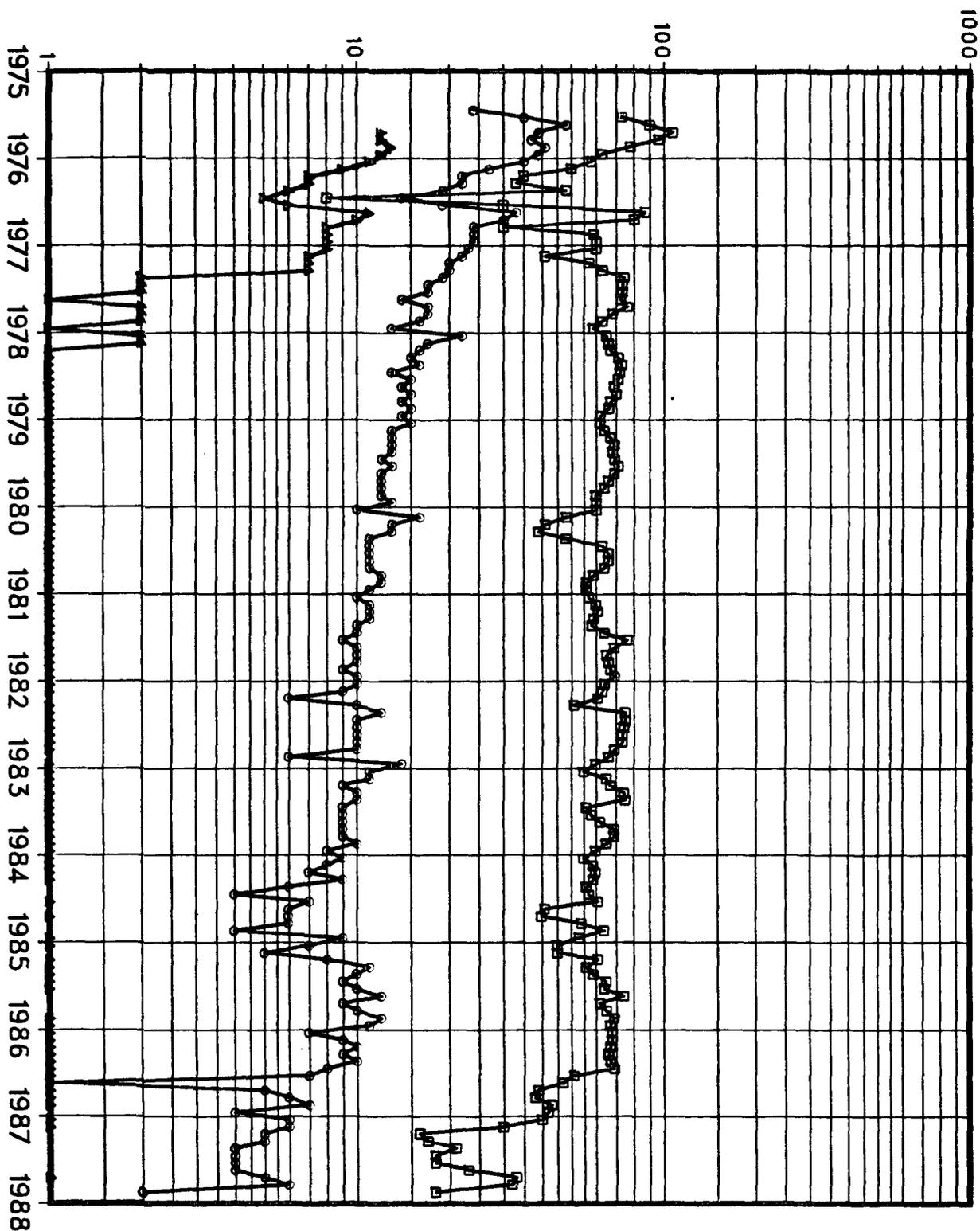
No well will be assigned an allowable greater than the amount of oil produced on the official test.
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top well allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage 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 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.

Debra J. Rowland
(Signature)
Dr. Hank Aust.
(Title)
5-12-87
(Date)

N G PENROSE #3 DRINKARD-GRANITE WASH PRODUCTION

PRODUCTION (BCPD,MCFPD,BWPD)



DATE

Legend

- OIL PROD BOPD
- GAS PROD KCFPD
- △ WATER PROD BWPD



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 HOBBS DISTRICT OFFICE

3-21-88

GARREY CARRUTHERS
 GOVERNOR

POST OFFICE BOX 1980
 HOBBS, NEW MEXICO 88241-1980
 (505) 393-6161

OIL CONSERVATION DIVISION
 P. O. BOX 2088
 SANTA FE, NEW MEXICO 87501

RECEIVED
 MAR 24 1988
 OIL CONSERVATION DIVISION
 SANTA FE

RE: Proposed:

MC _____
 DHC X
 NSL _____
 NSP _____
 SWD _____
 WFX _____
 PMX _____

Gentlemen:

I have examined the application for the:

Exxon Corp. N.G. Penrose #3-A 13-22-37
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
 Jerry Sexton
 Supervisor, District 1

/ed

RECEIVED
APR - 4 1988

Downhole Commingling Request
N. G. Penrose No. 3²²
Unit G, Sec. 13, T-~~27~~-S, R-37-E
Lea County, New Mexico

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Attention: David R. Catanach

As an offset operator, the undersigned has no objection to the Exxon application to downhole commingling the Blinebry, Drinkard and Wantz Granite Wash Pools in the captioned wellbore.

Approved by: 
Representing: ZACHARY OIL OPERATING COMPANY
Date: MARCH 30, 1988

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 9399
Order No. R-8708

APPLICATION OF EXXON CORPORATION
TO AMEND DIVISION ORDER DHC-195, AS
AMENDED, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 8, 1988, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 4th day of August, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Division Case Nos. 9398 and 9399 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order DHC-195, as amended, dated April 5, 1988, the Division authorized Exxon Corporation to commingle the production from the Drinkard, Wantz-Granite Wash, and Blinebry Oil and Gas Pools within the wellbore of its N.G. Penrose Well No. 3 located 1980 feet from the North and East lines (Unit G) of Section 13, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, subject to the following provisions:

- "a. Each newly completed zone shall be separately tested a minimum of 30 days or until such time as the production has stabilized.
- b. The Blinebry zone shall not be commingled should it be determined after testing that said zone is a gas zone subject to the Gas Proration Rules and Regulations for the Blinebry Oil and Gas Pool."

(4) The applicant, Exxon Corporation, seeks the amendment of said Order DHC-195 by removing from said order the testing provisions of the Blinebry zone.

(5) The Division has instituted said provisions to Order DHC-195 in order to ensure the protection of correlative rights of the various operators within the Blinebry Oil and Gas Pool should the Blinebry zone in the subject well be completed as a gas zone subject to the General Rules for the Prorated Gas Pools in New Mexico as promulgated by Division Order No. R-8170, as amended.

(6) The applicant presented production data from several Blinebry wells in the area of the N.G. Penrose Well No. 3 which indicates that Blinebry completions below a depth of approximately -2250 sub-sea result in producing gas-oil ratios of less than 16,000 standard cubic feet of gas per barrel of oil.

(7) This data also indicates that Blinebry completions above a depth of approximately -2250 feet sub-sea have resulted in producing gas-oil ratios in excess of 224,000 standard cubic feet of gas per barrel of oil.

(8) The evidence presented indicates that there exists substantial control within the Blinebry formation in this area.

(9) The applicant testified that it intends to perforate and complete only the oil-bearing portions (those at depths deeper than -2250 sub-sea) of the Blinebry formation in the N.G. Penrose Well No. 3 and, as a result, should obtain a producing oil well in the Blinebry Oil and Gas Pool.

(10) The applicant further presented evidence and testimony which indicate that requiring the Blinebry zone to be separately tested within the subject well would substantially increase workover and completion costs which may in turn render the proposal uneconomic.

(11) Approval of the proposed amendment to Order DHC-195 will result in the recovery of additional reserves from the Blinebry Oil and Gas Pool, thereby preventing waste, and will not violate correlative rights provided that the applicant does not perforate and complete said zone in the gas bearing interval described in Finding No. (7) above.

IT IS THEREFORE ORDERED THAT:

(1) Division Order DHC-195, as amended, issued April 5, 1988, is hereby amended by the deletion therefrom of the following provisions:

- "a. Each newly completed zone shall be separately tested a minimum of 30 days or until such time as the production has stabilized.
- b. The Blinebry zone shall not be commingled should it be determined after testing that said zone is a gas zone subject to the Gas Proration Rules and Regulations for the Blinebry Oil and Gas Pool."

PROVIDED HOWEVER THAT, the applicant shall perforate and complete only that portion of the Blinebry zone identified in Finding No. (6) as being oil bearing and located at a depth greater than -2250 sub-sea.

(2) All other provisions contained in Order DHC-195 shall remain in full force and effect.

(3) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 9399
Order No. R-8708
Page -4-

DONE at Santa Fe, New Mexico, on the day and year
hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L