



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



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

February 3, 1992

Exxon Company U.S.A.
P.O. Box 1600
Midland, Texas 79702-1600

Attention: Don J. Bates

Re: Mary Federal Well No. 5
Section 11, T-23 South, R-25 East, NMPM

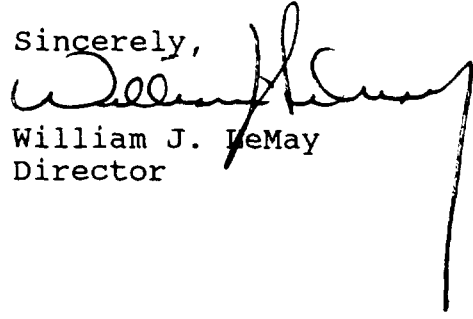
Dear Mr. Bates:

As per your letter request dated January 8, 1993, the allocation of production from the Mary Federal Well No. 5, approved for downhole commingling by Division Order No. R-8218, is hereby set as follows:

<u>POOL</u>	<u>OIL/CONDENSATE</u>	<u>GAS</u>
Undesignated Pennsylvanian Pool	95%	55%
Sheep Draw-Strawn Pool	5%	45%

The production allocation described above is hereby made retroactive to May, 1991, being the date of first production from the subject well.

Sincerely,


William J. DeMay
Director

xc: OCD-Artesia
Case File 8858

RELEASE 2-1-93

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

ENVIRONMENTAL AND REGULATORY AFFAIRS

January 8, 1993

DHC Order No. R-8218
Mary Federal #5
DHC Allocation Formula

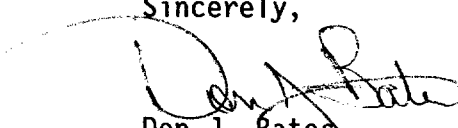
Mr. David Catanach
New Mexico Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Dear Mr. Catanach:

The attached was sent to Mr. Williams on November 18, 1992, Exxon request approval for the proposed allocation formula.

If you have any questions, please call me at 915/688-7874.

Sincerely,


Don J. Bates
Administrative Specialist

DJB/mcn
Attachment

B:14.DJB

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

November 18, 1992

DHC Order No. R-8218
Mary Federal #5 Allocation Formula

Mr. Mike Williams
New Mexico Oil Conservation Division
District II
811 S. First St.
Artesia, New Mexico 88210

Dear Mr. Williams:

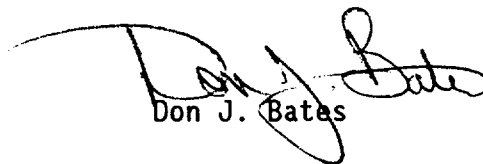
After thorough review of this well's production before and after the Penn Zone was perforated, Exxon submits the following as a production allocation basis:

<u>Pool Name</u>	<u>Oil/Cond. %</u>	<u>Chg/GWG %</u>
Und. Penn	95	55
Strawn Gas Pool	<u>5</u>	<u>45</u>
	100	100

The allocation basis will be made retroactive to May 1991 when well actually started production.

If you have any questions, please call me at 915/688-7874.

Sincerely,


Don J. Bates

DJB/mcn
B:08.DJB

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

ENVIRONMENTAL AND REGULATORY AFFAIRS

RICHARD D. GODDARD
SUPERVISOR

June 12, 1992

Mary Federal Well No. 5
Unit N, Section 11, T23S-R25E
Eddy County, New Mexico

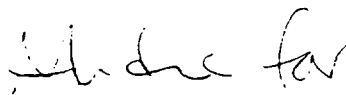
Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. LeMay:

Exxon has recently discovered that the New Mexico Oil Conservation Commission does not have on file a completion report for the captioned well. Although this well was drilled in November 1985, we are unable to locate any completion report for this well, nor can we confirm receipt of a completion report by the NMOCD. Approval to downhole commingle the well was granted in NMOCD Order No. R-8218, heard as Case No. 8858 on March 19, 1986. We believe we can complete and file the completion reports for this well within the next week, however, we request your permission to continue operation of the well until that time.

If you have any questions about our request, please call Bill Duncan at (915) 688-7538 or Charlotte Harper at (915) 688-7549.

Sincerely,



Richard D. Goddard 6/12

RDG:dmm
\\wtd\\lemay.let

3

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWEST/ROCKY MOUNTAIN DIVISION

May 22, 1986

NMOCD Cases 8842 and 8858
Unorthodox Well Location and
Downhole Commingling
Sheep Draw-Strawn Gas Pool
Eddy County, New Mexico

B. J. Ingram
Andrews District

Attached are Orders R-8203 and R-8218 for the captioned cases. Exxon's applications for the Mary Fed. #1 unorthodox gas well location and the Mary Fed. #5 downhole commingling application were approved. Please note that Finding 14 of Order R-8218 requires Exxon to notify the NMOCD district office any time the well is shut-in for seven consecutive days. Findings 16 thru 18 outline how the allocation formula will be determined for each zone.


James D. Howell

WTD:sf

Attachments

bc: J. W. Jordan
J. R. Bartel

HINKLE, COX, EATON, COFFIELD & HENSLEY

LEWIS C. COX
PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY JR.
OWEN M. LOPEZ
DOUGLAS L. LUNSFORD
T. CALDER EZZELL, JR.
WILLIAM S. BURFORD
RICHARD E. OLSON
RICHARD A. SIMMS
DEBORAH NORWOOD
RICHARD R. WILFONG
STEVEN D. ARNOLD
JAMES J. WECHSLER
NANCY S. CUSACK
JEFFREY L. FORMACIAN
JEFFREY D. HEWITT

JAMES BRUCE
JERRY F. SHACKELFORD
ALBERT L. PITTS
FRED W. SCHWENDMANN
THOMAS D. HAINES, JR.
THOMAS H. HANSEN
MICHAEL F. MILLERICK
FRANKLIN M. McALLUM
ALLEN G. HARVEY
GREGORY J. NIBERT
JUDY K. MOORE
DAVID T. MARKETTE
JAMES R. McADAMS
BRUCE R. ROGOFF
JAMES M. HUDSON
MACDONNELL GORDON
REBECCA J. NICHOLS
PAUL R. NEWTON
WILLIAM R. JOHNSON

ATTORNEYS AT LAW

218 MONTEZUMA

POST OFFICE BOX 2068

SANTA FE, NEW MEXICO 87504-2068

(505) 982-4554

200 CENTURY PLAZA
POST OFFICE BOX 3580
MIDLAND, TEXAS 79702
(817) 683-4881

1700 TEXAS AMERICAN BANK BUILDING
POST OFFICE BOX 12118
AMARILLO, TEXAS 79101
(806) 372-5559

700 UNITED BANK PLAZA
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201
(505) 622-9517

Oil, Gas, & Env.
Conservation

— JDH — Handle
— WTD — FYI
— JSM — Let's Disc.
— RAS — File
— JRW
— JCC

MAY 14 '86

May 12, 1986

OF COUNSEL
ROY C. SHODGRASS, JR.
O. M. CALHOUN
MACK EASLEY
JOE W. WOOD

CLARENCE E. HINKLE (804-8881)
W. E. BONDURANT, JR. (813-4872)
ROBERT A. STONE (806-4881)

*NOT LICENSED IN NEW MEXICO

Mr. William Duncan
Exxon Corporation
Post Office Box 1600
Midland, Texas 79702

Dear Bill:

Enclosed is OCD Order No. R-8218 approving downhole com-
mingling in the Mary Federal No. 5 Well. Please note the require-
ments for a back pressure test and analysis in paragraphs 16
through 18.

Best regards.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

James Bruce

JGB:jr
Enclosure

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 8858
Order No. R-8218

APPLICATION OF EXXON CORPORATION
FOR DOWNHOLE COMMINGLING, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 19, 1986, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 9th day of May, 1986, 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) This case was consolidated with Division Case No. 8842 at the time of the hearing for the purpose of testimony.

(3) The applicant, Exxon Corporation, is the owner and operator of the Mary Federal Well No. 5, located in Unit N of Section 11, Township 23 South, Range 25 East, NMPM, Eddy County, New Mexico.

(4) The applicant seeks authority to commingle production from the Undesignated Upper Pennsylvanian Formation (Cisco and Canyon) and from the Undesignated (Sheep Draw) Strawn Gas Pool within the wellbore of the above-described well.

(5) The Mary Federal Well No. 5 was drilled in November, 1985 and the production casing was set through the base of the Strawn formation.

(6) As a result of gas influx into the well during primary cementing operations, there exists a channel in the

Pennsylvanian formation, and should submit these tests to the supervisor of the Division's Artesia district office.

(17) After consultation with the applicant, the supervisor of the Division's Artesia district office should make a determination of whether an accurate allocation formula can be determined based on the multipoint pressure tests.

(18) The supervisor of the Division's Artesia district office should have the authority to require the applicant to conduct additional tests or production logs to determine an accurate allocation formula, should the multipoint tests not be sufficient to make a determination.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Exxon Corporation, is hereby authorized to commingle Undesignated Upper Pennsylvanian (Cisco and Canyon) and Undesignated (Sheep Draw) Strawn Pool production within the wellbore of the Mary Federal Well No. 5, located in Unit N of Section 11, Township 23 South, Range 25 East, NMPM, Eddy County, New Mexico.

PROVIDED HOWEVER that in order to allocate the commingled production to each of the commingled gas zones in the well, the applicant shall conduct a multipoint back pressure test and a gas analysis on the well after perforating the Upper Pennsylvanian formation, and shall submit these tests to the supervisor of the Division's Artesia district office.

PROVIDED FURTHER that if an accurate allocation formula cannot be determined by the multipoint tests, the supervisor of the Division's Artesia district office shall have the authority to require the applicant to conduct additional tests or production logs as he deems necessary to determine an accurate allocation formula for the well.

(2) The operator of the subject well shall immediately notify the Division's Artesia district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

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

Submit to Appropriate
District Office
State Lease--6 copies
Fee Lease--3 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-105
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
3001525378

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
NM 0426782

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER _____

7. Lease Name or Unit Agreement Name
MARY FEDERAL

8. Well No.
5

9. Pool name or Wildcat
SHEEP DRAW

2. Name of Operator
EXXON CORPORATION

3. Address of Operator
**ATTN: REGULATORY AFFAIRS
P. O. BOX 1600
MIDLAND, TX 79702**

4. Well Location
Unit Letter **N** : **709** Feet From The **SOUTH** Line and **1829** Feet From The **WEST** Line
Section **11** Township **23-S** Range **25-E** NMPM **EDDY** County

10. Date Spudded **09/12/85** 11. Date F.D. Reached **11/01/85** 12. Date Compl. (Ready to Prod.) **11/23/85** 13. Elevations (DF & RKB, RT, GR, etc.) **GR-3842** 14. Elev. Casinghead

15. Total Depth **10397** 16. Plug Back F.D. **10354** 17. If Multiple Compl. How Many Zones? 18. Intervals Drilled By Rotary Tools ☒ Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name **9916, 10349, STRAWN** 20. Was Directional Survey Made **NO**

21. Type Electric and Other Logs Run **CBL-VDL, CNL-GR, CH-SONIC** 22. Was Well Cored **NO**

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB. FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94.5	95	26	125 CLC	
13 3/8	54.5	1613	17.5	400 CLC/1600 HL	
9 5/8	40	2600	12.250	475 CLC/300 CLC	
7	26 & 32	10395	8.5	745 CLH/975 TLW	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8	9870	9870

26. Perforation record (interval, size, and number)				27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
9916-9921	6 SHOTS			DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
9940-9954	15 SHOTS			9916-10349	13000 GAL OF 15% HCL AND
10030-10115	71 SHOTS				70 TONS C02
10120-10152	33 SHOTS				
10143-10349	146 SHOTS				

28. PRODUCTION							
Date First Production 11/23/85		Production Method (Flowing, gas lift, pumping - Size and type pump) FLOWING				Well Status (Prod. or Shut-in) SI	
Date of Test *	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) Test Witnessed By

30. List Attachments
***SEE ATTACHED MULTIPOINT AND ONE POINT BACK PRESSURE TEST DATED 12/19/85**

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Submit to Appropriate
District Office
State Lease--6 copies
Free Lease--3 copies

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-105
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO. 3001525378
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No. NM 0426782

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____		7. Lease Name or Unit Agreement Name MARY FEDERAL		
b. Type of Completion: NEW WELL ☐ WORK OVER ☒ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER DHC R-8218				
2. Name of Operator EXXON CORPORATION		8. Well No. 5		
3. Address of Operator ATTN: REGULATORY AFFAIRS P. O. BOX 1600 MIDLAND, TX 79702		9. Pool name or Wildcat SHEEP DRAW / PENN		
4. Well Location Unit Letter N : 709 Feet From The SOUTH Line and 1829 Feet From The WEST Line Section 11 Township 23-S Range 25-E NMPM EDDY County				
10. Date Spudded 09/12/85	11. Date T.D. Reached 11/01/85	12. Date Compl. (Ready to Prod.) 11/23/85	13. Elevations (DF & RKB, RT, GR, etc.) GR-3842	14. Elev. Casinghead
15. Total Depth 10397	16. Plug Back T.D. 10354	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools ☒ Cable Tools	
19. Producing Interval(s), of this completion - Top, Bottom, Name 9916, 10349, STRAWN; 9742, 9852, PENN				20. Was Directional Survey Made NO
21. Type Electric and Other Logs Run CBL-VDL, CNL-GR, CH-SONIC				22. Was Well Cored NO

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94.5	95	26	125 CLC	
13 3/8	54.5	1613	17.5	400 CLC/1600 HL	
9 5/8	40	2600	12.250	475 CLC/300 CLC	
7	26 & 32	10395	8.5	745 CLH/975 TLW	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number) PERFS ADDED TO PREVIOUS PERFS: 9742-9852 74 SHOTS	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	NO STIMULATION	

28. PRODUCTION							
Date First Production 11/23/85		Production Method (Flowing, gas lift, pumping - Size and type pump) FLOWING				Well Status (Prod. or Shut-in) SI	
Date of Test X	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)	Test Witnessed By
--	-------------------

30. List Attachments *SEE ATTACHED MULTIPOINT AND ONE POINT BACK PRESSURE TEST DATED 06/24/86

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief
--

Printed

DISTRICT II
P.O. Drawer 100, Artesa, NM 88210

DISTRICT III
100 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Operator EXXON CORPORATION		Well API No. 3001525378
Address ATTN: REGULATORY AFFAIRS P. O. BOX 1600 MIDLAND, TX 79702		
Reason(s) for filing (Check proper box) New Well ☒ ☐ Change in Transporter of: Oil ☐ Dry Gas ☐ Casinghead Gas ☐ Condensate ☐ Change in Operator ☐		☒ Other (Please explain) ORIGINAL COMPLETION PAPERS INADVERTENTLY NOT FILED WITH NMOC. DHC ORDER NO. R-8218
Change of operator give name and address of previous operator _____		

DESCRIPTION OF WELL AND LEASE

Well Name MARY FEDERAL	Well No. 5	Pool Name, Including Formation SHEEP DRAW	Kind of Lease State, Federal or Lic FEDERAL	Lease No. NM 0426782
Location Unit Letter N : 709 Feet From The SOUTH Line and 1829 Feet From The WEST Line Section 11 Township 23S Range 25E , NMPM, EDDY County				

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil MURLOCK PERMIAN CORP.	or Condensate ☒	Address (Give address to which approved copy of this form is to be sent) BOX 3119, MIDLAND, TX. 79702-3119				
Name of Authorized Transporter of Casinghead Gas EL PASO NATURAL GAS CO.	or Dry Gas ☒	Address (Give address to which approved copy of this form is to be sent) BOX 1492, EL PASO, TX. 79978				
Well produces oil or liquids, location of tanks.	Unit N	Sec. 11	Twp. 23S	Rge. 25E	Is gas actually connected? YES	When? 05/21/91
If production is commingled with that from any other lease or pool, give commingling order number R-8218						

COMPLETION DATA

Designate Type of Completion - (X)	Oil Well ☐	Gas Well ☒	New Well ☒	Workover ☐	Deepen ☐	Plug Back ☐	Same Res'v ☐	Diff Res'v ☐
Spudded 9/12/85	Date Compl. Ready to Prod. 11/23/85		Total Depth 10397		P.B.T.D.			
Productions (DF, RKB, RT, GR, etc.) 33860, DF3859,	Name of Producing Formation PENN AND STRAWN		Top Oil/Gas Pay 10349		Tubing Depth 9600			
Productions 12-9852 PENN 9916-10349 STRAWN					Depth Casing Shoe			

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
26	20"	95	125 SX
17 1/2	13 3/8	1613	400 SX
12 1/4	9 5/8	2600	775 SX
8 1/2	7	10395	1720 SX

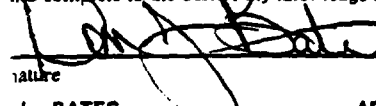
TEST DATA AND REQUEST FOR ALLOWABLE

WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed ton allowable for this depth or be for full 24 hours.)			
First New Oil Run To Tank 1/23/85	Date of Test 06/24/86	Producing Method (Flow, pump, gas lift, etc.) FLOWING	
Pressure of Test	Tubing Pressure	Casing Pressure	Choke Size
Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas-MCF

WELL			
Prod. Test - MCF/D 29	Length of Test 24	Bbls. Condensate/MMCF 11.5	Gravity of Condensate 57
Method (pilot, back pr.) PI/ONE PT/BACK	Tubing Pressure (Shut-in) 2080	Casing Pressure (Shut-in) 0	Choke Size 12/64

OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature 	
J. BATES	ADMINISTRATIVE SPECIALIST
Dated Name 15/92	Title (915) 688-7509
Telephone No.	

OIL CONSERVATION DIVISION

Date Approved	JUN 28 1992
By	ORIGINAL SIGNED BY MIKE WILLIAMS
Title	SUPERVISOR, DISTRICT II

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

Request for allowable for newly drilled or deepened well must be accompanied

tabulation of deviation tests taken in accordance with Rule 111.

All sections of this form must be filled out for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.

Separate Form C-104 must be filed for each pool in multiply completed wells.

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

REQUEST FOR ALLOWABLE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Operator EXXON CORPORATION	Well API No. 3001525378
Address ATTN: REGULATORY AFFAIRS P. O. BOX 1600 MIDLAND, TX 79702	
Reason(s) for Filing (Check proper box) New Well ☒ Other (Please explain) ☒ Recompletion ☐ Change in Transporter of: Oil ☐ Dry Gas ☐ Change in Operator ☐ Casinghead Gas ☐ Condensate ☐ ORIGINAL COMPLETION PAPERS INADVERTENTLY NOT FILED WITH NMOC. DHC ORDER NO. R-8218	

If change of operator give name
and address of previous operator _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name MARY FEDERAL	Well No. 5	Pool Name, including Formation SHEEP CREEK	Kind of Lease State, Federal or Fee FEDERAL	Lease No. NM 0426782
Location Unit Letter N : 709 Feet From The SOUTH Line and 1829 Feet From The WEST Line Section 11 Township 23S Range 25E , NMPM, EDDY County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒ SCURLOCK PERMIAN CORP.	Address (Give address to which approved copy of this form is to be sent) BOX 3119, MIDLAND, TX. 79702-3119					
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒ EL PASO NATURAL GAS CO.	Address (Give address to which approved copy of this form is to be sent) BOX 1492, EL PASO, TX. 79978					
If well produces oil or liquids, give location of tanks.	Unit N	Sec. 11	Twp. 23S	Rge. 25E	Is gas actually connected? YES	When? 05/21/91

If this production is commingled with that from any other lease or pool, give commingling order number **R-8218**

IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well ☐	Gas Well ☒	New Well ☒	Workover ☐	Deepen ☐	Plug Back ☐	Same Res'v ☐	Diff Res'v ☐
Date Spudded 09/12/85	Date Compl. Ready to Prod. 11/23/85	Total Depth 10397		P.B.T.D.					
Elevations (D.F., RKB, RT, GR, etc.) KB3860, DF3859,	Name of Producing Formation PENN AND STRAWN		Top Oil/Gas Pay 10349		Tubing Depth 9600				
Perforations 9742-9852 PENN 9915-10349 STRAWN					Depth Casing Shoe				

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
26	20"	95	125 SX
17 1/2	13 3/8	1613	400 SX
12 1/4	9 5/8	2600	775 SX
8 1/2	7	10395	1720 SX

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank 11/23/85	Date of Test 06/24/86	Producing Method (Flow, pump, gas lift, etc.) FLOWING	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas-MCF

GAS WELL

Actual Prod Test - MCF/D 1729	Length of Test 24	Bbls. Condensate/MMCF 11.5	Gravity of Condensate 57
Testing Method (pitot, back pr.) MULTI/ONE PT/BACK	Tubing Pressure (Shut-in) 2080	Casing Pressure (Shut-in) 0	Choke Size 12/64

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation
Division have been complied with and that the information given above is
true and complete to the best of my knowledge and belief.

Signature

DON J. BATES

Printed Name

06/15/92

Date

ADMINISTRATIVE SPECIALIST

Title

(915) 688-7509

Telephone No.

OIL CONSERVATION DIVISION

Date Approved

JUN 28 1992

By

ORIGINAL SIGNED BY

MIKE WILLIAMS

Title

SUPERVISOR, DISTRICT II

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

1) Request for allowable for newly drilled or deepened well must be accompanied
by tabulation of deviation tests taken in accordance with Rule 111.

2) All sections of this form must be filled out for allowable on new and recompleted wells.

3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.

4) Separate Form C-104 must be filed for each pool in multiply completed wells.

EXXON COMPANY, U.S.A.

November 18, 1985

LISTED BELOW ARE THE DEVIATION TESTS TAKEN ON THE MARY FEDERAL #5.

<u>DEPTH</u>	<u>DEGREES OF DEVIATION</u>	<u>DEPTH</u>	<u>DEGREES OF DEVIATION</u>
43	1	2,118	1
75	1/2	2,315	1
173	1/4	2,707	1
448	2	2,800	1 3/4
490	1	2,924	1 3/4
531	1 1/4	3,398	1 1/2
643	1 1/2	3,961	1 3/4
738	2	4,398	1 3/4
800	2	4,839	1 1/2
860	2	5,330	2
924	2	5,570	2
985	2 1/4	5,950	2
1,019	1 3/4	6,307	1
1,051	1 1/2	6,700	2
1,105	2	7,083	1 3/4
1,175	1 1/4	7,750	1 3/4
1,240	2 1/4	8,200	2
1,306	1 1/2	8,690	2
1,400	1 1/2	9,192	1 3/4
1,528	1 3/4	9,700	2 1/2
1,590	1 1/2	10,295	2 1/4
1,880	1		

BY: EM Canoll

SWORN TO and subscribed before me this 9th day of July, 1985.

Beth Edgar
Notary Public
Midland, Texas

My commission expires: February 29, 1988.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

GAS WELL SHUT-IN PRESSURE
1991 YEAR / FORM C-125
*** EDDY COUNTY ***

CIXON CORPORATION P.O. BOX 4721 HCLUSTON, TX

P U O L / L E A S E L C C A T I O N DATE PRESS TIME SI SI-PRESS SI-PRESS PREV TES
WELL S T S PM RUN HRS/MIN PSIG(CT) PSIA DATE

DUBLIN RANCH MORROW (GAS)

GOURLEY FEDERAL COM 1B 26 22S 29E PM 9-12-91 48/0 940 953.2 9-12-91

EMPIRE MORROW, SOUTH (GAS)

NEW MEXICO ED STATE 1E 20 17S 29E PM 8-19-91 24/0 1400 1413.2 7-24-91

HAPPY VALLEY MORROW (GAS)

HAPPY VALLEY B FEDERAL COM 1K 28 22S 26E PM 8-17-91 24/0 570 583.2 9-14-91

HAPPY VALLEY FEDERAL CCM 1G 26 22S 26E PM 8-17-91 168/0 280 293.2 7-23-91

J.A. TOMAIND FEDERAL CCM 1L 27 22S 26E PM 8-17-91 24/0 1525 1538.2 8-29-91

HAPPY VALLEY STRAWN (GAS)

HAPPY VALLEY FEDERAL CCM 1G 28 22S 26E PS 8-17-91 168/0 280 293.2 8-22-91

LAGUNA SALADO ATOKA (GAS)

LAGUNA GRANDE UNIT 3J 29 23S 29E PA 9-12-91 24/0 1310 1323.2 9-15-91

SHEEP DRAW ATOKA (GAS)

SQUAW FEDERAL 3K 1 23S 25E PA 9-19-91 72/0 690 703.2 8-16-91

SHEEP DRAW MORROW (GAS)

MARY FEDERAL 5N 11 23S 25E PM 7-27-91 24/30 2325 2338.2 8-16-91

SQUAW FEDERAL 3K 1 23S 25E PM 8-19-91 72/0 690 703.2 8-16-91

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.
SEE RULE 402

SIGNATURE Sandra L. Matzke TITLE Staff Office Asst. DATE 10-15-91

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

CIL CONSERVATION DIVISION
P. O. BOX 2098
SANTA FE, NEW MEXICO 87501

GAS WELL SHUT-IN PRESSURE R
1991 YEAR / FORM C-125
*** EDDY COUNTY ***

EXXON CORPORATION

P.O. BOX 4721

HOUSTON,

TX

P O C L / L E A S E

LOCATION DATE PRESS TIME SI SI-PRESS SI-PRESS PREV TES
WELL S T R F# RUN HRS/MIN PSIG(PSI) PSIA DATE

SHEEP DRAW STRAWN (GAS)

MARY FEDERAL

1F 11 23S 25E PS 9-27-91 24hr. 1050 1063.2 8-16-91

5N 11 23S 25E PS 7-27-91 24/30 2325 2338.2 8-16-91

NEW MEXICO EV STATE COM

1K 32 22S 26E PS 8-18-91 10 days 1325 1338.2 8-27-91

SQUAW FEDERAL

1F 12 23S 25E PS 8-20-91 24/0 845 858.2 8-16-91

TURKEY TRACK MORROW (GAS)

NEW MEXICO CZ STATE

1E 2 19S 29E PM 8-19-91 24hr 2000 2013.2 7-20-91

WINCHESTER UPPER PENN (GAS)

NEW MEXICO CU STATE

1C 36 19S 28E UP 8-10-91 5yr. 550 563.2 7-24-91

2N 24 19S 28E UP 8-20-91 5yr. 580 593.2 7-21-91

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.
SEE RULE 402.

SIGNATURE Sandra L. Matzke TITLE Staff Office Asst. DATE 10-15-91

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
OPERATION SUBMIT DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 100
Expires August 31, 198

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

2. TYPE OF COMPLETION: ☒ NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REMOV. ☐ Other

3. NAME OF OPERATOR
Exxon Corporation Attn: Melba Knipling

4. ADDRESS OF OPERATOR
P. O. Box 1600, Midland, TX 79702

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 709' FSL and 1829' FWL
At top prod. interval reported below
At total depth

6. LEASE DESIGNATION AND NO.
NM-0426782

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Mary Federal

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Undesig. Sheep Draw Morrow Gas

11. SEC., T., R., M., OR BLOCK AND OR AREA
Sec. 11, T23S-R25E

12. COUNTY OR PARISH
Eddy

13. STATE
NM

14. PERMIT NO.
30-015-25378

15. DATE ISSUED
8-20-85

16. DATE PROD. BEACHED
11-1-85

17. DATE COMPL. (Ready to prod.)
11-23-85

18. ELEVATIONS (OF RKB, RT, CR, ETC.)*
KB-3860, DF-3859, GL-3842

19. ELEV. CASING
10,397

20. TOTAL DEPTH, MD & TVD
10,397

21. PLUG BACK T.D., MD & TVD

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY
X

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Penn 9742-9852
Strawn 9916-10,349

25. WAS DIRECT SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
CBL-VDL, CNL-GR, CH-SONIC

27. WAS WELL COS
No

Casing Record (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PT
Cond. 20"	94.5	95	26	125 sx CLC	
13 3/8	54 1/2	1613	17 1/2	400 sx CLC & 1600 Halad Lite	
9 5/8	40	2600	12 1/4	475 sx CLC Lite & 300 sx CLC	
7	26 & 32	10395	8 1/2	745 sx CLH & 975 sx TLW	

LINER RECORD					TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET
					2 7/8	9600	960

PERFORATION RECORD (Interval, size and number)			ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
10,349-10,143	146 shots		DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
10,115-10,030	71 shots		9916-10,349	13000 gal. of 15% HCL & tons CO ₂
10,152-10,120	33 shots			
9,954-9,940	15 shots		9742-9,852	No stimulation
9,921-9,916	6 shots			
9,742-9,852	74 shots			

33. See Attached

34. PRODUCTION

DATE FIRST PRODUCTION
11-23-85

PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)
Flowing

WELL STATUS (Producing or shut-in)
Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
6-24-86	1	12/64"		11.5 cond.	1729	0	350.0

FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CO)
2080	0		69 cond.	3263 AOF	0	57

35. LIST OF ATTACHMENTS
Multi point and one point back pressure test for gas well.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Melba Knipling TITLE Section Head DATE 7-19-86

TEST WITNESSED BY
ACCEPTED FOR REC
JUL 20 1986
CARLSBAD, NEW ME

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12/19/85	
Company Exxon Co. U.S.A.			Connection None		
Pool			Formation Strawn		Unit
Completion Date 11/19/85		Total Depth 10377		Plug Back TD 10354	Elevation 3849
Farm or Lease Name Mary Federal					
Cas. Size 7	Wt. 26	d 6.276	Set At 10377	Perforations: From 9916 To 10349	
Thg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 9870	Perforations: From Open To End	
Type Well - Single - Dresshead - G.C. or G.O. Multiple Single				Packer Set At 9870	
Producing Thru TBG		Reservoir Temp. °F 173 @ 9870		Mean Annual Temp. °F 60	
				Base Press. - P _g 13.2	
State New Mexico					
L 9870	H 9870	G _g .6789	% CO ₂ 1.961	% N ₂ 1.673	% H ₂ S
Prover		Meter Run 3.826		Tape Flg	

FLOW DATA						TUBING DATA		CASING DATA		Dure. of Flo
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							2990			
1.	3.826 X 1.00			300	11	86	2930			
2.	3.826 X 1.00			300	20	90	2860			
3.	3.826 X 1.00			300	40	92	2784			
4.	3.826 X 1.00			300	80	92	2665			
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf
1	4.758	58.70	313.2	.9759	1.214	1.029	340
2	4.758	79.14	313.2	.9723	1.214	1.029	457
3	4.758	111.93	131.2	.9706	1.214	1.029	646
4	4.758	158.29	313.2	.9706	1.214	1.029	913
5							

NO.	R _g	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.47	546	1.43	.944	DRY		.679		669	382
2	.47	550	1.44	.945						
3	.47	552	1.44	.945						
4	.47	552	1.44	.945						
5										

NO.	P ₁ ²	P ₂ ²	P ₃ ²	P ₄ ²	P ₅ ²	P _c ²
1	2943.4	8663.6	355.6			3003.2
2	2860.1	8180.2	839.0			9019.2
3	2797.9	7828.2	1191.0			
4	2679.7	7180.8	1838.4			
5						

(1) $\frac{P_c^2}{P_2^2 - P_1^2} = 4.906$

AOF = 0 $\left[\frac{P_2^2}{P_2^2 - P_1^2} \right]^n = 3.730$

(2) $\left[\frac{P_2^2}{P_2^2 - P_1^2} \right]^n = 4.086$

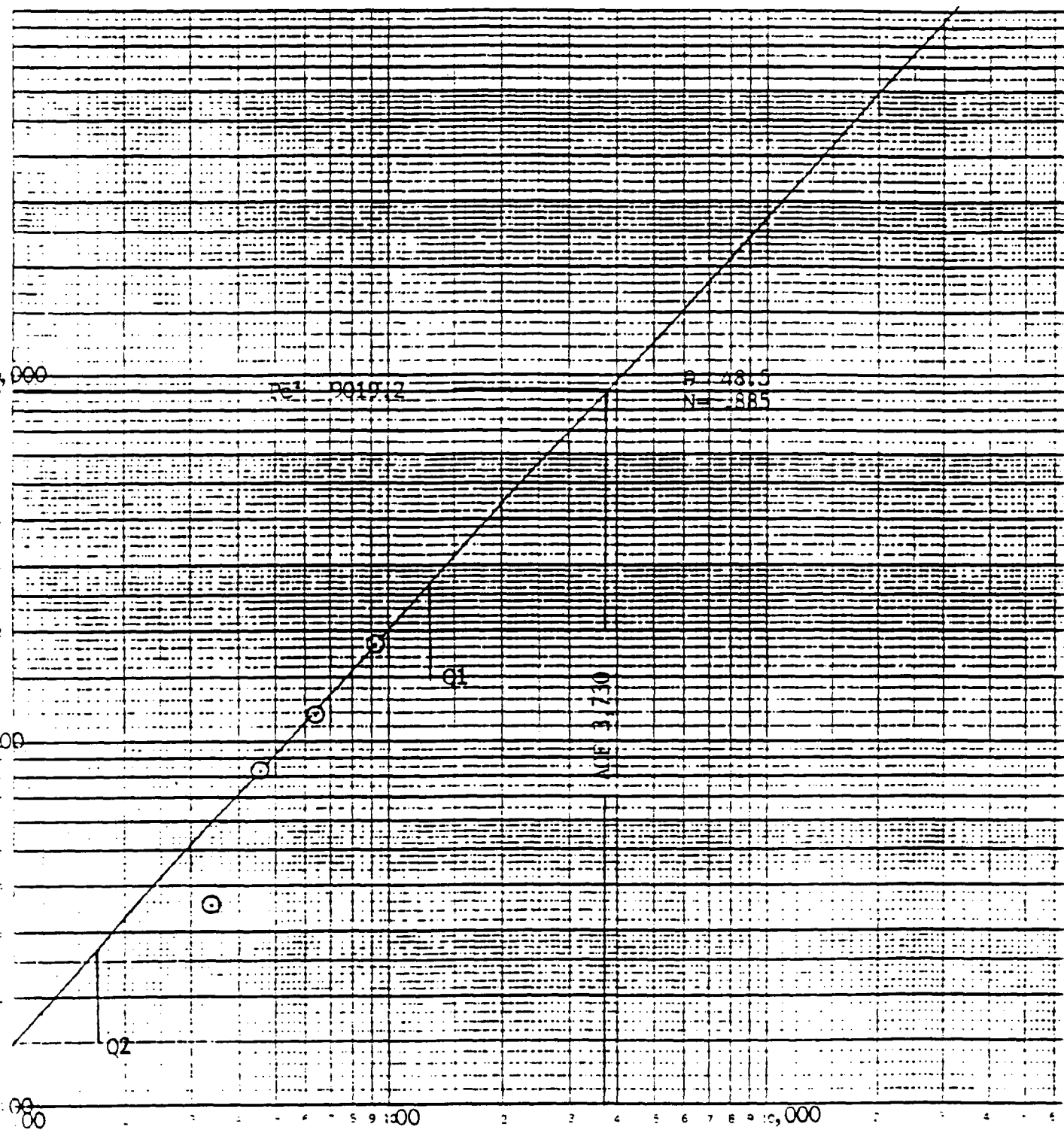
Absolute Open Flow	3.730	Mscf @ 15.025	Angle of Slope	48.5	Slope n	.88
--------------------	-------	---------------	----------------	------	---------	-----

Remarks: Well made no fluid during test.

Approved By Division	Conducted By: Duke Services, Inc.	Calculated By: R. Reston	EXHIBIT NO. 11
			DOCKET NO. 3855,88

WEARING DATE 3-19-82

DATE: 12/19/85


$$\text{CAOF} = 913 \left(\frac{9019.2}{1838.4} \right)^{.885} = 3,730$$

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

Form - 101
911-3

GAS-OIL RATIO TESTS

[illegible]

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

Reeling in more business for our 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 38) and appropriate pool rules.

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

Al. Luk

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPL
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-013
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.
NM 0426782 ✓
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT SURVEY NAME
RECEIVED

8. FARM OR LEASE NAME
Mary Federal 1986

9. WELL NO.
5 ✓
GENERAL FILE ROOM

10. FIELD AND POOL, OR WITHIN

Undes. Sheep Draw-Str
11. SEC., T., R., M., OR BLK. AND
SHEAF OR AREA

Sec 11 T-23S R-25E

12. COUNTY OR PARISH 13. STATE
Eddy NM

1. OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR
Exxon Corp. Attn: Janet L. Schaumburg

3. ADDRESS OF OPERATOR
P. O. Box 1600, Midland, TX 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

790' FSL and 1829' FWL of Sec. 11 (SE SW)

14. PERMIT NO.
30-015-25378

15. ELEVATIONS (Show whether of, to, or, etc.)
GR-3855

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

FEEL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other) Down Hole comingling

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface intervals and measured and true vertical depths for all markers and zones perti-
nent to this work.)

This Sundry Notice is being filed to elaborate on Sundry Notice filed on 7-11-86.

6-17-86 MIRU Completion Unit.

6-18-86 NU BOP and test to 1500#.

6-20-86 Perforate casing from 9742-9852', 74 shots, no stimulation.

This well was permitted to be a Morrow producer, it was instead completed in the Strawn.
Due to a poor cmt. job on the production csg. there is communication between the Strawn
and Penn. The perfs. from 9742' - 9852' are in the Penn. formation. Permission to down
hole comingling was granted by the NMOCD 3-19-86 Order No. R-8218.

Comingling Strawn with
Upper Penn (Cisco + Canyon)
(Perfs 9742-9852')



18. I hereby certify that the foregoing is true and correct

SIGNED Janet L. Schaumburg
Janet L. Schaumburg

TITLE Permits Supervisor

DATE 9-12-86

(This space for Federal or State use only)

APPROVED BY [Signature]
CONDITIONS OF APPROVAL, IF ANY:

TITLE [Signature]
AREA MANAGER
CARLSBAD RESOURCE AREA

RECEIVED
DATE 9-20-86

OCT 2 1986

Subject to
Like Approval

*See Instructions on Reverse Side

NGPA & PERMITS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPL E*

(See other in-
structions on
reverse side)

Form approved.
Budget Bureau No. 1004-0;
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

2. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PIPE BACK ☐ DIFF. EXCH. ☐ Other _____

3. NAME OF OPERATOR

Exxon Corporation Attn: Melba Knipling

4. ADDRESS OF OPERATOR

P. O. Box 1600, Midland, TX 79702

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 709' FSL and 1829' FWL

At top prod. interval reported below

At total depth

14. PERMIT NO.

30-015-25378

DATE ISSUED

8-20-85

15. DATE SPUDDED

9-12-85

16. DATE T.D. REACHED

11-1-85

17. DATE COMPL. (Ready to prod.)

11-23-85

18. ELEVATIONS (OF. RMB. RT. CR. ETC.)*

KB-3860, DF-3859, GL-3842

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

10,397

21. PLUG, BACK T.D., MD & TVD

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS UNILLED BY

ROTARY TOOLS

CABLE TOOLS

X

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

Penn 9742-9852

Strawn 9916-10,349

25. WAS DIRECTION SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

CBL-VDL, CNL-GR, CH-SONIC

27. WAS WELL CORRED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT FT/LB.
Cond. 20"	94.5	95	26	125 sx CLC	
13 3/8	54 1/2	1613	17 1/2	400 sx CLC & 1600 Halad Lite	
9 5/8	40	2600	12 1/4	475 sx CLC Lite & 300 sx CLC	
7	26 & 32	10395	8 1/2	745 sx CLH & 975 sx TLW	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 7/8	9600	9600

31. PERFORATION RECORD (Interval, size and number)

10,349-10,143 146 shots
10,115-10,030 71 shots
10,152-10,120 33 shots
9,954- 9,940 15 shots
9,921- 9,916 6 shots
9,742- 9,852 74 shots

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
9916-10,349	13000 gal. of 15% HCL & 70 tons CO ₂
9742- 9,852	No stimulation

33. See Attached

PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
11-23-85		Flowing				Shut-in	
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
6-24-86	1	12/64"	→	11.5 cond.	1729	0	150,347
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
2080	0	→	69 cond.	3263 AOF	0	57	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Multi point and one point back pressure test for gas well.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Tanet L. Schaumburg TITLE Permits Supervisor DATE 8-29-86

*(See Instructions and Spaces for Additional Data on Reverse Side)

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		6/24/86	
Company				Connection							
Exxon Co. U.S.A.				None							
Pool				Formation				Unit			
Undesig. Sheep Draw-Morrow Gas				Strawn & Penn							
Completion Date		Total Depth		Plug Back TD		Elevation		Farm or Lease Name			
6/20/86		10,377		10,354		3849		Mary Federal			
Coq. Size	Wt.	d	Set At	Perforations:				Well No.			
7	26	6.276	10,377	From 9742		To 10,349		5			
Thq. Size	Wt.	d	Set At	Perforations:				Unit Sec. Twp.			
2 7/8	6.5	2,441	9,600	From Open		To End		N 11 23S			
Type Well - Single - Indention - G.C. or G.O. Multiple								Pecker Set At		County	
Single								9600		Eddy	
Producing Thru		Reservoir Temp. °F		Mean Annual Temp. °F		Base. Press. - P _g		State			
Tbg.		170 @ 9600		60		13.2		New Mexico			
L	H	Ca	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps			
9600	9600	.683	.255	.394			4.026	Flg			

FLOW DATA						TUBING DATA		CASING DATA		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F
SI							3050			
1.	4.026 X 1.500			400	5	88	2782			7
2.	4.026 X 1.500			400	9.5	85	2525			1
3.	4.026 X 1.500			400	19	87	2318			1
4.	4.026 X 1.500			410	40	88	2080			1
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compress. Factor, F _{sp}	Rate of Flow Q, Mcf
1	10.84	45.45	413.2	.9741	1.210	1.040	604
2	10.84	62.65	413.2	.9768	1.210	1.040	835
3	10.84	88.60	413.2	.9750	1.210	1.040	1178
4	10.84	130.11	423.2	.9741	1.210	1.040	1729
5							

NO.	R	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio
1.	.62	548	1.42	.924	15.746
2.	.62	545	1.42	.924	A.P.I. Gravity of Liquid Hydrocarbons 57 @ 60
3.	.62	547	1.42	.924	Specific Gravity Separator Gas .683
4.	.63	548	1.42	.923	Specific Gravity Flowing Fluid XXXXX
5.					Critical Pressure 669 P.S.I.A. 664
					Critical Temperature 385 °R 444

NO.	P ₁ ²	P _w ²	P ₂ ²	P ₂ ² - P _w ²
1		2796.3	7802.5	1580.7
2		2539.8	6450.6	2932.6
3		2334.6	5450.4	3932.8
4		2100.3	4411.3	4971.9
5				

(1) $\frac{P_c^2}{P_2^2 - P_w^2} = 1.887$

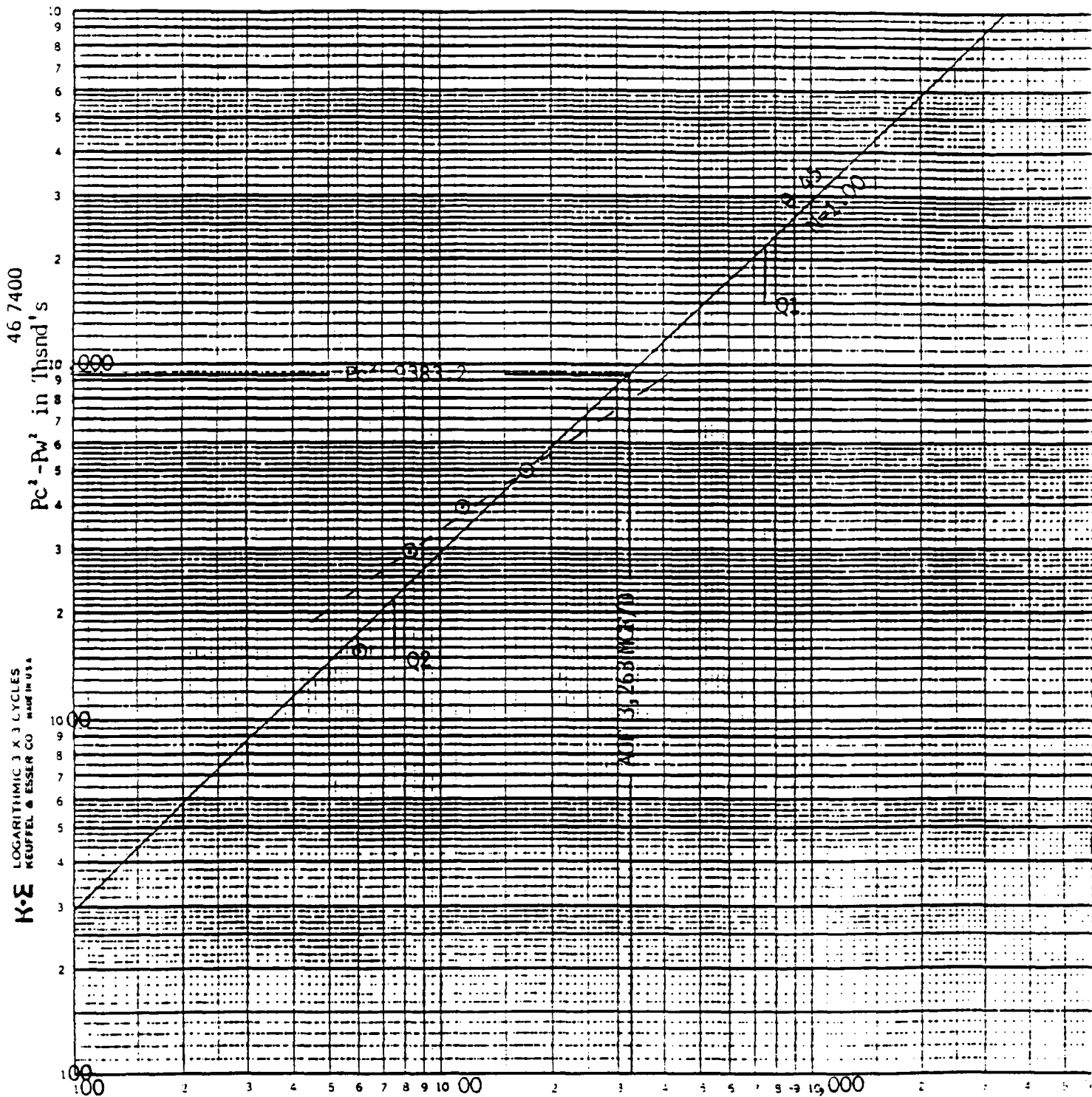
AOF = 0 $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 3.263$

(2) $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 1.887$

Absolute Open Flow	3.263	Mold @ 15.025	Angle of Slope	45	Slope, n	1.2
Remarks: 11.5 bbls of condensate made during test						

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Duke Services, Inc.	R. Reston	

Company: Exxon Co. U.S.A.
 Lease: Mary Federal # 5
 Date: 6/24/86
 County: Eddy



$Q = \text{MCF/Day}$

$Q_1 = 7,500 = \text{Log } 3.875061$
 $Q_2 = 750 = \text{Log } 2.875061$
 $N = 1.000000$

$CAOF = 1,729 \left(\frac{9383.2}{4971.9} \right)^{1.00} = 3,263 \text{ MCF/Day}$



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONY ANAYA
GOVERNOR

May 9, 1986

POST OFFICE BOX 2068
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mr. James Bruce
Hinkle, Cox, Eaton,
Coffield & Hensley
Attorneys at Law
Post Office Box 2068
Santa Fe, New Mexico

Re: CASE NO. 8858
ORDER NO. R-3218

Applicant:

Exxon Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Sincerely,

R. L. STAMETS
Director

RLS/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other