



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GOVERNOR

1/21/98

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

DHC-1807

2/25/98

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

RE: Proposed:

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

Gentlemen:

I have examined the application for the:

Marathon Oil Co McCallister State #12-L-25-17s-34
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

None -

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed

mailed



P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

January 13, 1998

Mr. David Catanach
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501-2088

Re: Request for Exception to Rule 303-A
Downhole Commingling
McCallister St. No. 12
UL "L", 1,945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Wolfcamp and Upper Penn Pools
Vacuum Field
Lea County, New Mexico

Dear Mr. Catanach:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole commingling of production in the above subject well from the Vacuum (Wolfcamp) and Vacuum (Penn) pools.

The McCallister St. No. 12 was recently drilled as an Atoka producer. However, the Atoka was abandoned due to uneconomical production and was completed in the Penn formation. Unfortunately, the Penn production has also proved to be uneconomical. For this reason, Marathon is requesting to downhole commingle the Penn and Wolfcamp to maximize the economical production from the well. Rod pumping equipment will be utilized to keep the PBHP as low as possible to prevent crossflow.

Enclosed is pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please advise.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Bryan L. Williams'.

Bryan L. Williams
Production Engineer

BLW//regltry/comming/dhc/coverpag/mcal12_b
Enclosure



**Marathon
Oil Company**

P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

January 13, 1998

Mr. Pete Martinez
Commissioner of Public Lands
State Land Office Building
P.O. Box 1148
Santa Fe, NM 87504-1148

Re: Request for Exception to Rule 303-A
Downhole Commingling
McCallister St. No. 12
UL "L", 1,945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Wolfcamp and Upper Penn Pools
Vacuum Field
Lea County, New Mexico

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Sincerely,

Bryan L. Williams
Production Engineer

BLW//regitry/commingling/dhc/coverpag/mcal12_a
Enclosure



**Marathon
Oil Company**

P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

January 13, 1998

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705

Re: Request for Exception to Rule 303-A
Downhole Commingling
McCallister St. No. 12
UL "L", 1945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Wolfcamp and Upper Penn Pools
Vacuum Field
Lea County, New Mexico

Ladies and/or Gentlemen:

Marathon Oil Company has filed an application with the New Mexico Oil Conservation Division to downhole commingle the above referenced well. Please find enclosed a copy of the application as outlined in Rule 303-A.

If you are in agreement and waive all objections to the downhole commingling, please sign below and mail the original to the NMOCD in the enclosed addressed envelope. Also, please return one copy to Marathon at the letterhead address.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Bryan L. Williams'.

Bryan L. Williams
Production Engineer

BLW//reglatory/comming/dhc/wio/mcal12_a
Enclosure

Agreed and accepted this _____ day of _____ 199__

by _____, as representative of



P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

January 13, 1998

Mobil Exploration and Producing U.S. Inc.
500 W. Illinois, Midland, TX 79701
P.O. Box 633, Midland, TX 79702-0633

Re: Request for Exception to Rule 303-A
Downhole Commingling
McCallister St. No. 12
UL "L", 1945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Wolfcamp and Upper Penn Pools
Vacuum Field
Lea County, New Mexico

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Bryan L. Williams
Production Engineer

BLW//reglatory/comming/dhc/wio/mcal12_b
Enclosure

Agreed and accepted this _____ day of _____ 199__

by _____, as representative of



**Marathon
Oil Company**

P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

January 13, 1998

Texaco Exploration and Producing Inc.
Heritage Center, Midland, TX 79701
P.O. Box 3109, Midland, TX 79702-3109

Re: Request for Exception to Rule 303-A
Downhole Commingling
McCallister St. No. 12
UL "L", 1945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Wolfcamp and Upper Penn Pools
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Bryan L. Williams
Production Engineer

BLW//reglatory/commiling/dhc/wio/mcal12_c
Enclosure

Agreed and accepted this _____ day of _____ 199____
by _____, as representative of

EXHIBIT "B" - CASE NO. 11353, ORDER NO R-10470-A

DISTRICT I

P.O. Box 1890, Hobbs, NM 88240

DISTRICT II

811 South First St., Artesia, NM 88210

DISTRICT III

1000 Red Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-8429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☐ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Marathon Oil Company PO Box 2409 Hobbs, NM 88241
McCallister State 12 Bl. L. Sec. 25, T-17-N, R-34-E Lea
OGRID NO. 014021 Property Code 6431 API NO. 30-025-33954 Spacing Unit Lease Types (check 1 or more)
Federal ☐ State XX (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Vacuum; Wolfcamp		Vacuum; Upper Penn
2. Top and Bottom of Pay Section (Perforations)	9541-10,002'		10,964-10,994'
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 100 PBHP 2500 SBHP b. (Original)	a. b.	a. 100 PBHP 2000 SBHP b.
6. Oil Gravity (^o API) or Gas BTU Content	40 API		41 API
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 1/12/98 Rates: 54 / 121 / 10	Date: Rates:	Date: 11/10/97 Rates: 29 / 208 / 3
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 65 % Gas: 37 %	Oil: % Gas: %	Oil: 35 % Gas: 63 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No

11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(C) Exceptions: ORDER NO(S).

16. ATTACHMENTS:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Bryan L. Williams TITLE Production Eng. DATE 1/13/98

TYPE OR PRINT NAME Bryan L. Williams TELEPHONE NO. (505) 393-7106

REQUEST FOR EXCEPTION TO RULE 303-A
McCallister St. No. 12
Vacuum Field

A: Operator

Marathon Oil Company
P.O. Box 2409
Hobbs, NM 88241-2409

B: Lease Name and Well Number

McCallister St. No. 12
UL "L" 1945' FSL & 850' FWL
Sec. 25, T-17-S, R-34-E
Lea Co., New Mexico
Vacuum: Wolfcamp & Upper Penn Pools

C: Plats and Offset Operators

Attached

D: Form C-116

Attached

E: Production Decline Curves

Attached

F: Estimated Bottomhole Pressures

Vacuum, Upper Penn - 2000 psi
Vacuum, Wolfcamp - 2500 psi

G: Fluid Characteristics

Marathon has additional wells within the same lease which are downhole commingled in the Abo, Wolfcamp, and Penn zones without compatibility problems.

H: Value

Marathon receives the same price for the products from each zone and value will not be adversely affected.

I: Production Allocation

<u>Pool</u>	<u>BOPD</u>	<u>MCFPD</u>	<u>BWPD</u>	<u>Estimate Method</u>
Vacuum, Upper Penn	29	208	3	Pre-work actual production
Vacuum, Wolfcamp	<u>54</u>	<u>121</u>	<u>10</u>	Post-work incremental production
	83	329	13	Well test on 1/12/98

<u>Allocated Percentages</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
Post-workover utilizing above production			
Vacuum, Upper Penn	35%	63%	23%
Vacuum, Wolfcamp	<u>65%</u>	<u>37%</u>	<u>77%</u>
Total	100	100	100

J: Ownership

Ownership of all zones is common and correlative rights will not be violated.

K: Offset Operator Notification

By copy of this letter we are notifying all offset operators (attached) of the proposed commingling, by certified mail.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-33954		² Pool Code 62320		³ Pool Name Vacuum; Upper Penn	
⁴ Property Code 6431		⁵ Property Name McCallister State			⁶ Well Number 12
⁷ OGRID No. 014021		⁸ Operator Name Marathon Oil Company			⁹ Elevation GL 4008 KB 4026

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	25	17S	34E		1945	South	850	West	Lea

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County

¹² Dedicated Acres 80	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-------------------------------------	-------------------------------	----------------------------------	-------------------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Bryan L. Williams Printed Name Production Engineer Title January 13, 1998 Date			
	¹⁸ SURVEYOR CERTIFICATION 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 belief. ORIGINAL - APRIL 22, 1997 Date of Survey Signature and Seal of Professional Surveyer: Certificate Number			

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 S. 1st Street, Artesia, NM 88210-2834

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

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2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
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OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

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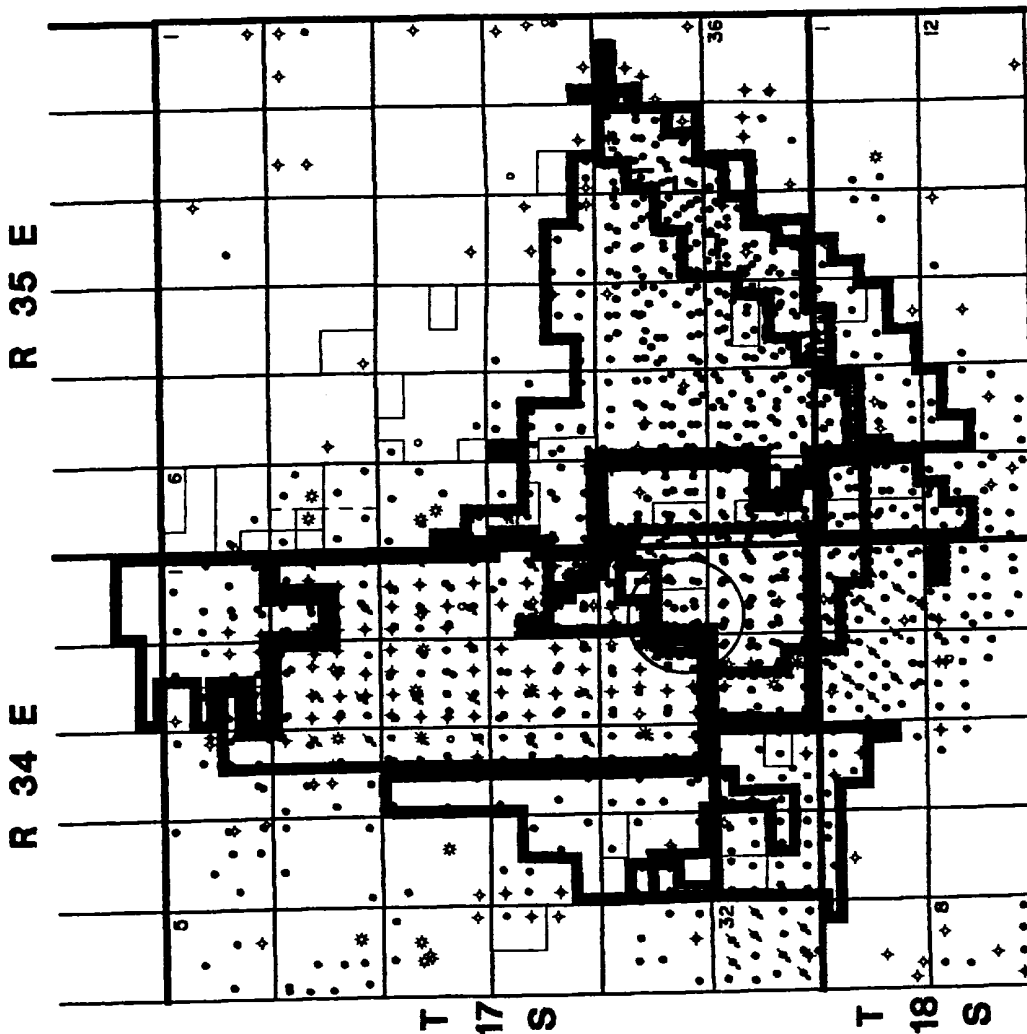
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Bryan L. Williams</i></p> <p>Signature</p> <p>Bryan L. Williams</p> <p>Printed Name</p> <p>Production Engineer</p> <p>Title</p> <p>January 13, 1998</p> <p>Date</p>		
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>ORIGINAL - APRIL 22, 1997</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>		

MARATHON OIL COMPANY
MID-CONTINENT REGION

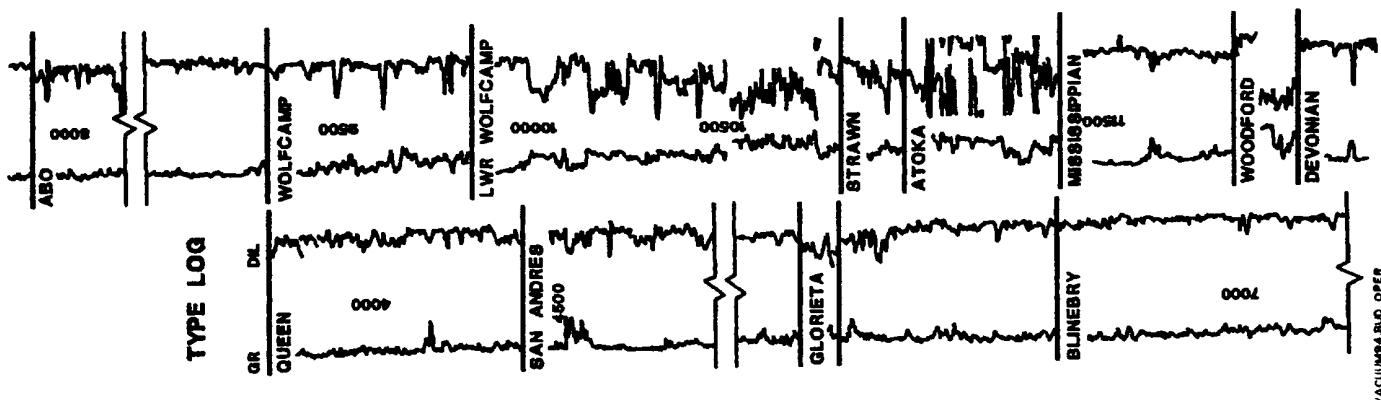
VACUUM FIELD

LEA COUNTY, NEW MEXICO



VACUUM GLORETA WEST UNIT (TEXACO OPER.) MOC W.I. 18.82%	NORTH VACUUM ABO WEST UNIT (TEXACO OPER.) MOC W.I. 3.9982%
NORTH VACUUM ABO NORTH (SAGE OPER.) MOC W.I. 4.9992%	EAST VACUUM UNIT (PHILLIPS OPER.) MOC W.I. 4.4487%
WEST VACUUM UNIT (TEXACO OPER.) MOC W.I. 13.43%	VACUUM ABO REEF UNIT (PHILLIPS OPER.) MOC W.I. 2.04%
CENTRAL VACUUM UNIT (TEXACO OPER.) MOC W.I. 24.78%	
NORTH VACUUM ABO UNIT (MOBIL OPER.) MOC W.I. 0.9946%	

9/94



**Marathon Oil Company
McCallister St. No. 12
UL "L", 1945' FSL & 850' FWL
Section 25, T-17-S, R-34-E
Lea County, New Mexico
Vacuum Field**

Offset Operators and Addresses

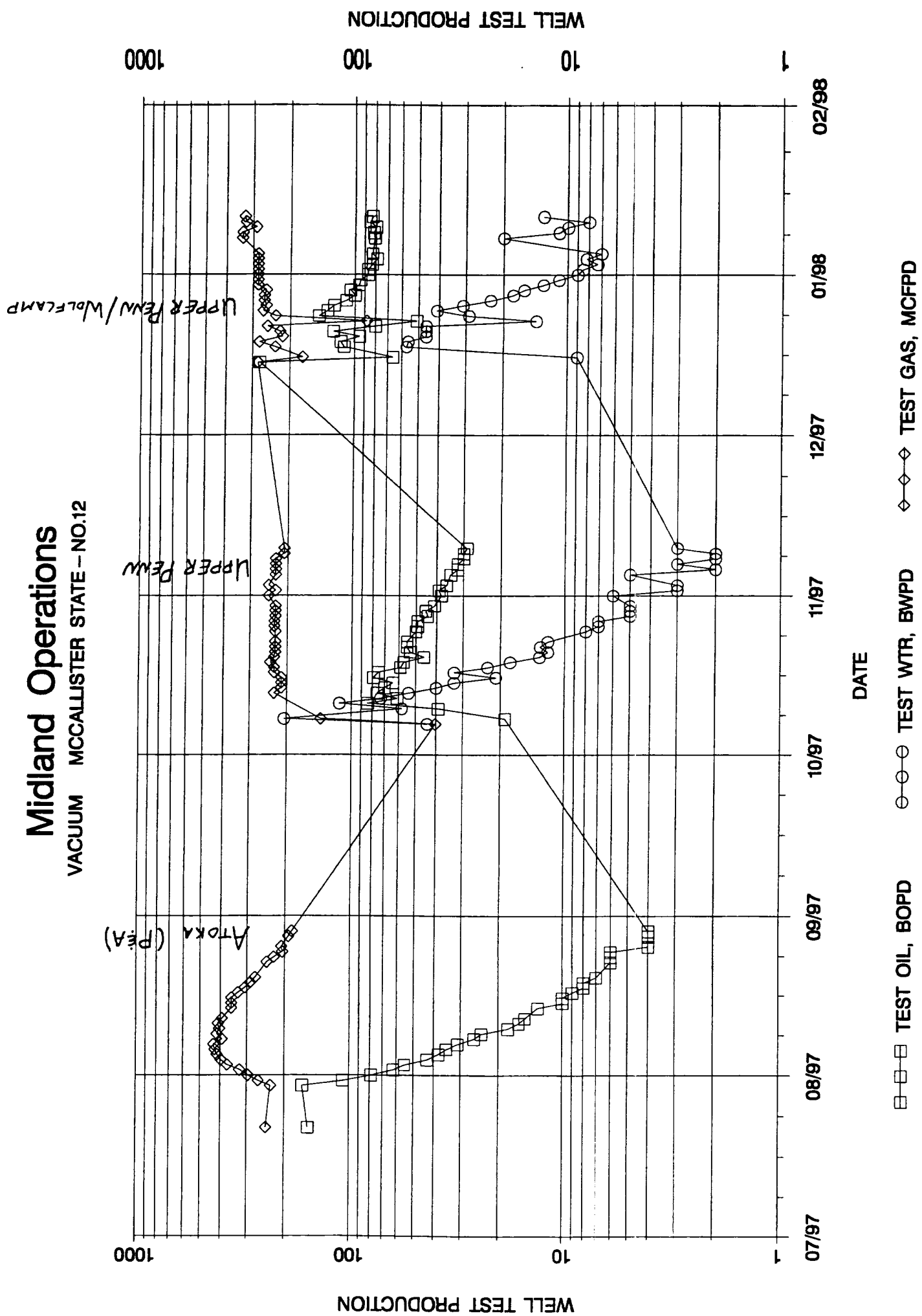
Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705

Mobil Exploration and Producing U.S. Inc.
500 W. Illinois, Midland, TX 79701
P.O. Box 633, Midland, TX 79702-0633

Texaco Exploration and Producing Inc.
Heritage Center, Midland, TX 79701
P.O. Box 3109, Midland, TX 79702-3109

Midland Operations

VACUUM MCCALLISTER STATE - NO.12



Submit 2 copies to Appropriate
District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
811 S. 1st Street, Artesia, NM 88210-2834
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Vacuum; Upper Penn / Wolfcamp		County Lea										
Address P.O. Box 2409 Hobbs, NM 88240		TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion		Special <input checked="" type="checkbox"/> X										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBQ. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS-OIL RATIO CU.FT./BBL.	
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
McCallister State	12	L	25	17S	34E	1/12/98	F			24	13	83	329	
DHC Application														
Zone 011x Gask														
Upper Penn 35 63												29	208	7172
Wolfcamp 65 37												54	121	2241

FOR INFORMATION ONLY

Instructions:

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.

See Rule 301, Rule 1116 & appropriate pool rules.)

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

Kelly Cook
Signature

Kelly Cook

Printed name and title

1/13/98

Date

Records Processor

393-7106

Telephone No.