



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

10/15/99

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

DHC-2506

RE: Proposed:

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

Gentlemen:

I have examined the application for the:

Operator Marathon Oil Co Lease & Well No. Bertha Barber Unit #16-K-5-205-37e  
S-T-R  
API # 30-025-33919

and my recommendations are as follows:

OK.

Yours very truly,

Chris Williams  
Supervisor, District 1

/ed



P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 12, 1999

Mr. David Catanach  
Oil Conservation Department  
Energy and Minerals Department  
P.O. Box 2088  
Santa Fe, New Mexico 87501

**RE: Request for Exception to Rule 303-A  
Downhole Commingling  
Bertha Barber Well No. 16  
Unit Letter K, 2140' FSL & 1650' FWL  
Section 5, T-20-S, R-37-E  
Monument Tubb & Monument Abo  
Monument 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 Monument Tubb & Monument Abo pools in Lea County, New Mexico.

Bertha Barber Well No. 16 was drilled in the summer of 1997. The Abo was perforated and acidized. Production since 1997 until now has been from the Abo. A casing leak was recently discovered and a RBP was set above the Abo perfs to isolate them. Currently the casing leak is being repaired. Afterwards, the Tubb will be perforated and stimulated with acid and a sand frac. The Tubb will be tested for 1 months or until approval of DHC application. After this time period, the RBP will be removed and the Tubb and Abo will be DHC. If the production test (Tubb) show that the allocation percentages for the Tubb and Abo are significantly different than that approved, an amended DHC application with the correct percentages will be filed. Rod pumping equipment will be utilized to keep the PBHP as low as possible, preventing crossflow.

The Monument Tubb is an 80 acre unit and will include Bertha Barber Well No. 16 & 18Y. Monument-Tubb Pool rules Order No. R-10128, June 3, 1994, Rule 2, does not prohibit wells on each of the quarter-quarter sections in the unit. The total oil production for both wells from both zones will be approximately 160 BOPD and is significantly below top allowable.

Enclosed is pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please contact me at (505) 393-7106, ext 201.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Thomas P. Kacir'.

Thomas P. Kacir  
Production Engineer

Enclosure

**REQUEST FOR EXCEPTION TO RULE 303-A**

**Bertha Barber Well No. 16**

**Monument Field**

**A: Operator**

Marathon Oil Company  
P.O. Box 2490  
Hobbs, New Mexico 88241

**B: Lease Name and Well Number**

Bertha Barber Well No. 16  
Unit Letter K, 2140' FSL & 1650' FWL  
Section 5, T-20-S, R-37-E  
Lea County, New Mexico  
Monument: Monument Tubb, Monument Abo Pools

**C: Plats and Offset Operators**

Attached

**D: C-116's**

Attached

**E: Production Decline Curves**

Expected Decline Curves are Attached

**F: Estimated Bottomhole Pressures**

	Current
Monument Tubb	1800 psi
Monument Abo	1600 psi

**G: Product Characteristics**

Previous commingling of these zones by Marathon and other operators have shown that the produced fluids are compatible and commingling will not cause formation damage.

**H: Value**

Marathon receives the same price for product from these zones and value will not be adversely affected.

**I: Production Allocation**

<u>POOL</u>	<u>BOPD</u>	<u>MCFD</u>	<u>BWPD</u>	<u>Estimated Methods</u>
Monument Tubb	110	330	3.0	Estimated
Monument Abo	<u>35</u>	<u>126</u>	<u>0.5</u>	Pre-Workover Test (oil & gas)
Total	145	456	3.5	water is average

<u>Allocated Percentages</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>
Monument Tubb	75.9	72.4	85.7
Monument Abo	<u>24.1</u>	<u>27.6</u>	<u>14.3</u>
Total	100	100	100

**J: Ownership**

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

**K: Offset Operator Notification**

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

**EAST EDMOND OXY USA, INC.**  
[OPER.]

[illegible]

**OFFSETTING OPERATORS  
Bertha Barber Well No. 16  
UL "K", 2140' FSL, 1650' FWL  
Section 5, T-20-S, R-37-E  
Lea County, New Mexico  
Monument Field**

T-20-S, R-37-E

**Section 5:**

Doyle Hartman  
P.O. Box 10426  
Midland, Texas 79702-7426

Amerada Hess Corporation  
P.O. Box 2040  
Houston, Texas 77252-2040

Gruy Petroleum  
600 Las Colinas Blvd. E Ste 1200  
Irving, Texas 75039-5611

Texaco Exploration & Production Inc.  
P.O. Box 3109  
Midland, Texas 79702-3109

**Section 6:**

Chevron USA Inc.  
P.O. Box 1150  
Midland, Texas 79702

## DHC Additional Data

The Monument Tubb in Bertha Barber Well No. 16, is expected to produce similarly as Bertha Barber Well No. 17 (recently recompleted to the Tubb).

Bertha Barber Well No. 18Y, produced 12 BOPD, 126 MCFPD & 33 BWPD on (9/02/99).

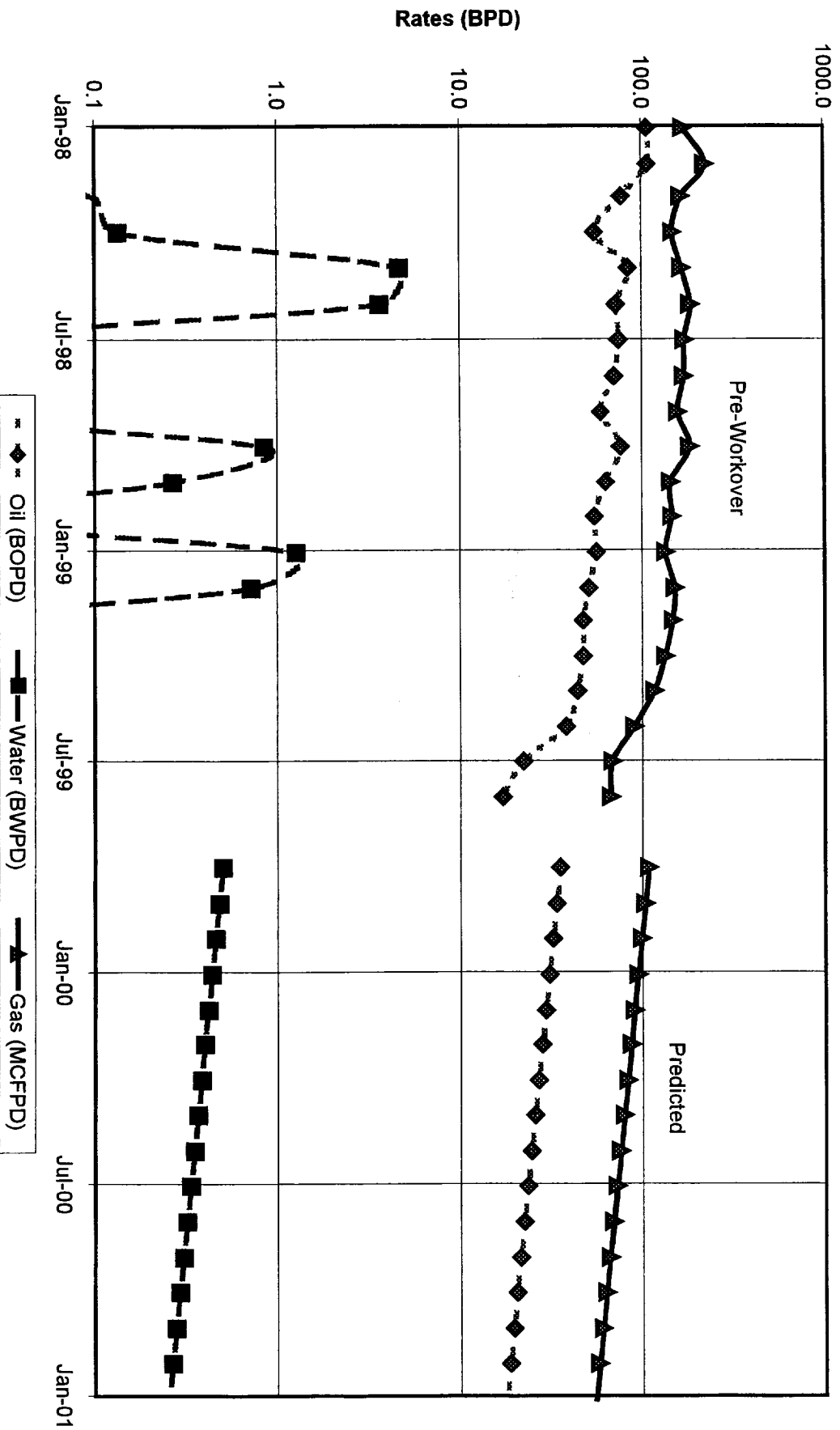
This Monument Tubb 80 acre unit will include Bertha Barber Well No. 16 & 18Y.

Total Production (including Barber 16 & 18Y):

Well Name	BOPD	BWPD	MCFPD	Pool
Barber #16	110	3.0	330	Tubb (predicted)
Barber #16	35	0.5	110	Abo (well test)
Barber #18Y	<u>12</u>	<u>33.0</u>	<u>126</u>	Tubb & Abo (well test)
Total	157	36.5	566	

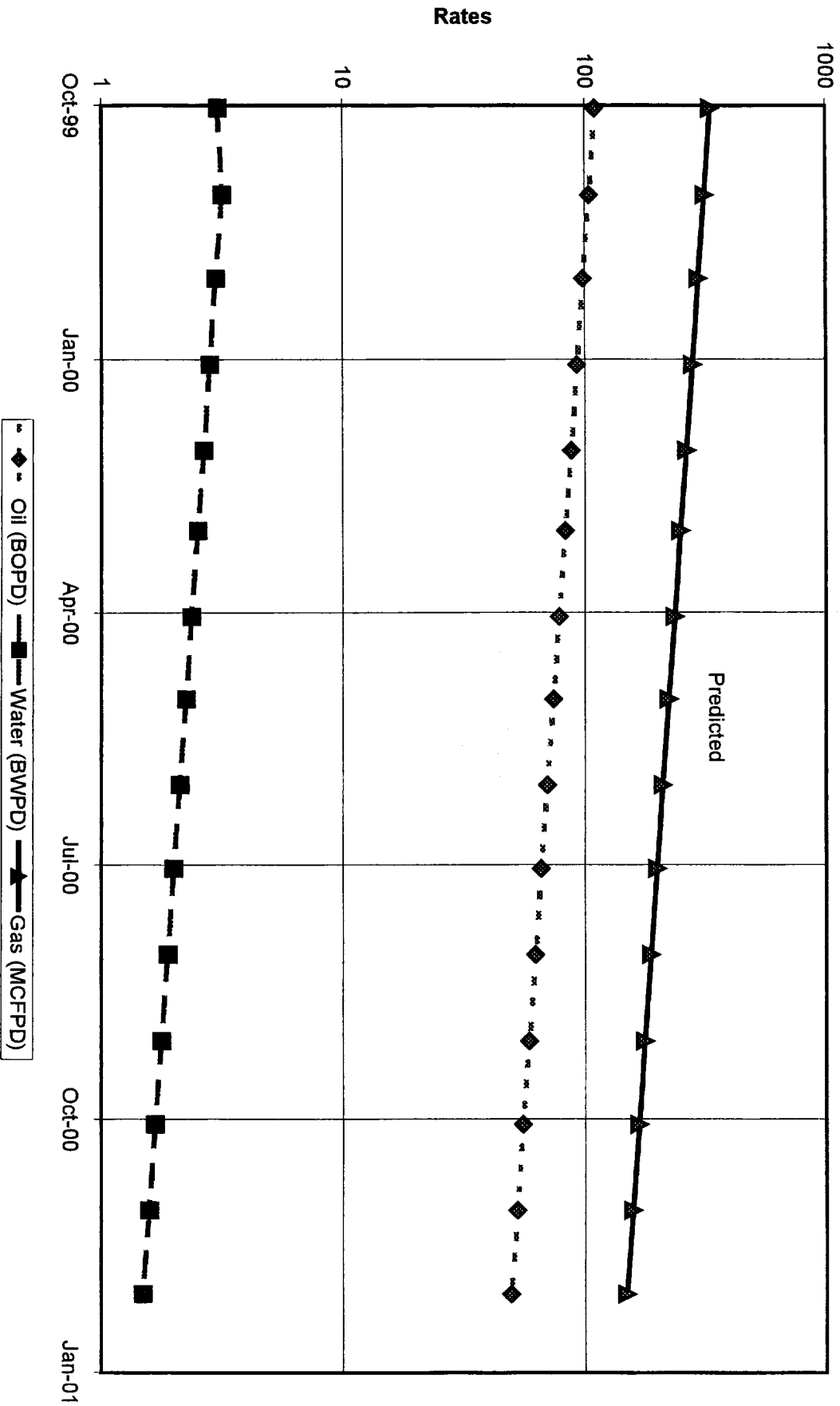
The water rate for Barber #16 Monument Abo is an average for the last 1.5 years.

# Bertha Barber Well No. 16 Monument Abo Production

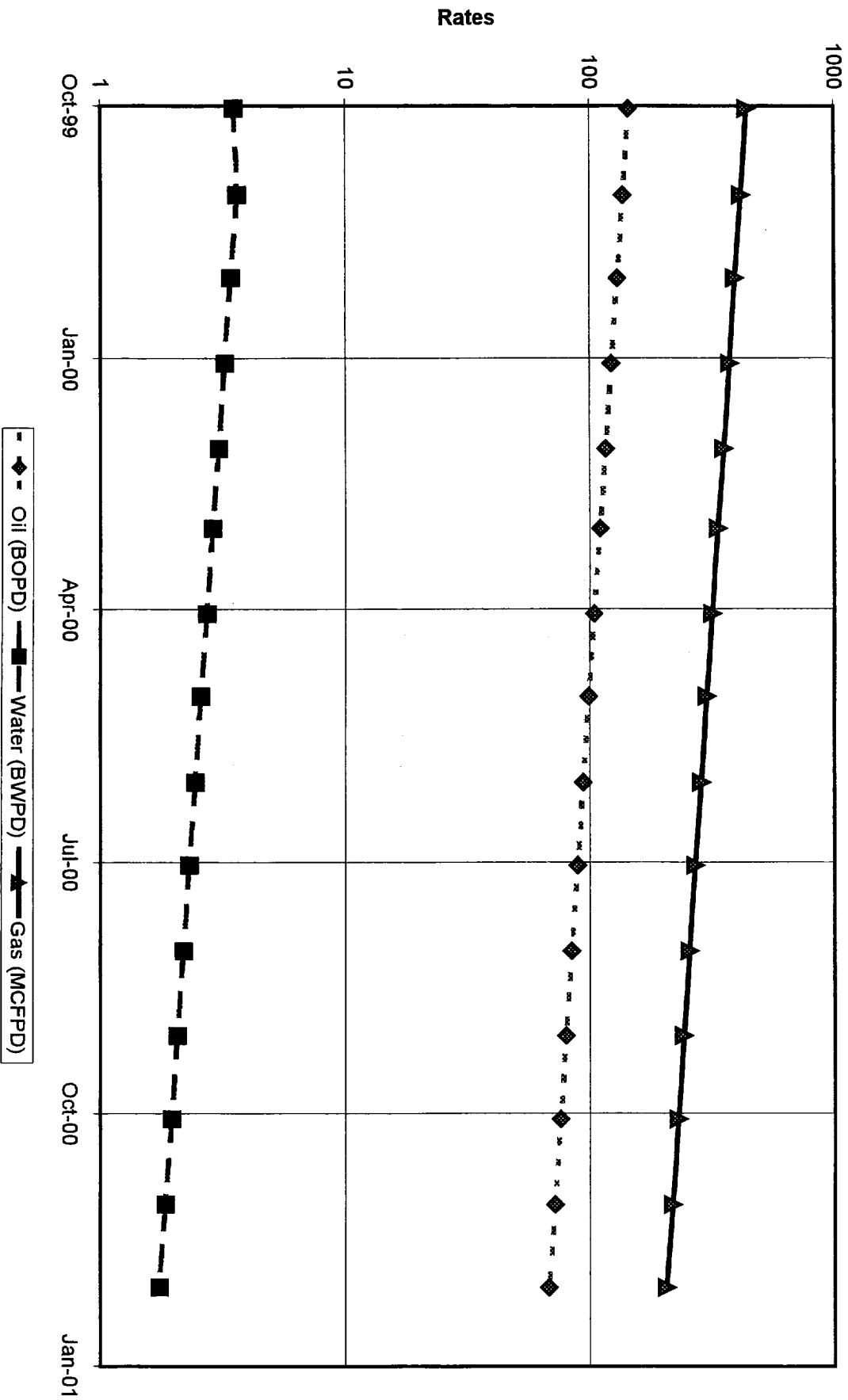




# Bertha Barber Well No. 16 Monument Tubb



**Bertha Barber Well No. 16**  
**Expected Post Workover**  
**Abo & Tubb Production**



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		Pool		Monument Abo		County		Lea									
Address		P.O. Box 2490 Hobbs, NM 88241		TYPE OF TEST - (X)		Schedul		Completion		Special							
LEASE NAME		WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. 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	GAS MCF	
Bertha Barber		16	K	5	20	37	8/22/99	P	180	180		24	0		35	127	3629
							8/21/99	P	180			24	0		30	124	4133
							7/24/99	P	180			24	0		34	132	3882
							7/3/99	P	200			24	0		41	129	3146

**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.

Signature

Thomas P. Kacir

Production Engineer

Printed name and title

10/10/99

393-7106

Date

Telephone No.

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102

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

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

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**

<sup>1</sup> API Number <b>30-025-33919</b>	<sup>2</sup> Pool Code <b>47090</b>	<sup>3</sup> Pool Name <b>Monument Tubb</b>
<sup>4</sup> Property Code <b>6366</b>	<sup>5</sup> Property Name <b>Bertha Barber</b>	
<sup>7</sup> OGRID No. <b>014021</b>	<sup>8</sup> Operator Name <b>Marathon Oil Company</b>	<sup>6</sup> Well Number <b>16</b> <sup>9</sup> Elevation <b>GL 3554, KB 3569</b>

<sup>10</sup> Surface Location									
UL or lot no. <b>K</b>	Section <b>5</b>	Township <b>20-S</b>	Range <b>37-E</b>	Lot. Idn	Feet from the <b>2140</b>	North/South Line <b>South</b>	Feet from the <b>1650</b>	East/West line <b>West</b>	County <b>Lea</b>

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres <b>80</b>		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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

	<p style="text-align: center;"><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p style="text-align: center;"><i>Thomas P. Kacir</i></p> <p>Signature <b>Thomas P. Kacir</b></p> <p>Printed Name <b>Production Engineer</b></p> <p>Title <b>10/12/99</b></p> <p>Date</p> <hr/> <p style="text-align: center;"><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyer:</p> <p>Certificate Number</p>
--	---

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102

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

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

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**

<sup>1</sup> API Number <b>30-025-33919</b>		<sup>2</sup> Pool Code <b>46970</b>		<sup>3</sup> Pool Name <b>Monument Abo</b>	
<sup>4</sup> Property Code <b>6366</b>		<sup>5</sup> Property Name <b>Bertha Barber</b>			<sup>6</sup> Well Number <b>16</b>
<sup>7</sup> OGRID No. <b>014021</b>		<sup>8</sup> Operator Name <b>Marathon Oil Company</b>			<sup>9</sup> Elevation <b>GL 3554, KB 3569</b>

<sup>10</sup> Surface Location									
UL or lot no. <b>K</b>	Section <b>5</b>	Township <b>20-S</b>	Range <b>37-E</b>	Lot. Idn	Feet from the <b>2140</b>	North/South Line <b>South</b>	Feet from the <b>1650</b>	East/West line <b>West</b>	County <b>Lea</b>

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UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
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OR A NON--STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>5</b>	<p><sup>17</sup> <b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p style="text-align: right;"><i>Thomas P. Kacir</i></p> <p>Signature <b>Thomas P. Kacir</b></p> <p>Printed Name <b>Production Engineer</b></p> <p>Title <b>10/12/99</b></p> <p>Date</p>
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		<p>Certificate Number</p>

Houston Division  
Production Operations, United States



P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Amerada Hess Corporation  
P. O. Box 2040  
Houston, Texas 77252-2040

**RE: Request for Exception to Rule 303-A  
Downhole Commingling  
Bertha Barber Well No. 16  
Unit Letter K, 2140' FSL & 1650' FWL  
Section 5, T-20-S, R-37-E  
Monument Tubb & Monument Abo  
Monument 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 commingling production in 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,

*Thomas P. Kacir*  
Thomas P. Kacir  
Production Engineer

TPK/  
Enclosure

Agreed and accepted this \_\_\_\_\_ day of \_\_\_\_\_ 1999

by \_\_\_\_\_, as representative of

Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Chevron USA Inc.  
P.O. Box 1150  
Midland, Texas 79702

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Sincerely,

A handwritten signature in cursive script that reads 'Thomas P. Kacir'.

Thomas P. Kacir  
Production Engineer

TPK/  
Enclosure

Agreed and accepted this \_\_\_\_\_ day of \_\_\_\_\_ 1999

by \_\_\_\_\_, as representative of

\_\_\_\_\_

Received  
1962  
603



Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Doyle Hartman  
P. O. Box 10426  
Midland, Texas 79702-7426

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Thomas P. Kacir  
Production Engineer

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by \_\_\_\_\_, as representative of

Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Gruy Petroleum  
600 Las Colinas Blvd. E Ste 1200  
Irving, Texas 75039-5611

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by \_\_\_\_\_, as representative of

\_\_\_\_\_



Houston Division  
Production Operations, United States



**Marathon  
Oil Company**

P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Texaco Exploration & Production Inc.  
P. O. Box 3109  
Midland, Texas 79702-3109

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Thomas P. Kacir  
Production Engineer

TPK/  
Enclosure

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by \_\_\_\_\_, as representative of

**DISTRICT I**

P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**

811 South First St., Artesia, NM 88210

**DISTRICT III**

1000 Rio 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 3-12-98**APPROVAL PROCESS:**☐ Administrative ☐ Hearing**EXISTING WELLBORE**☒ YES ☐ NO**APPLICATION FOR DOWNHOLE COMMINGLING**

Marathon Oil Company PO Box 2490 Hobbs, NM 88240  
 Operator Address  
 Bertha Barber 16 UL K, Sec. 5, T20S, R37E Lea  
 Well No. Unit Ltr. - Sec - Twp - Rgs County  
 Spacing Unit Lease Types: (check 1 or more)  
 OGRID NO. 014021 Property Code 6366 API NO. 30-025-33919 Federal ☐ State ☐ Land/Lease Fee ☒

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name and Pool Code	Monument Tubb 47090	N/A	Monument Abo 46970
2. Top and Bottom of Pay Section (Perforations)	Will Perforate 6418 - 6481'	N/A	7204-7230'
3. Type of production (Oil or Gas)	Oil	N/A	Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift	N/A	Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 1800 psi b. (Original) N/A	a. N/A b. N/A	a. 1600 psi b. N/A
6. Oil Gravity ( $^{\circ}$ API) or Gas BTU Content	36.4	N/A	41.0
7. Producing or Shut-In?	Proposed	N/A	Producing
Production Marginal? (yes or no)	Expected to be	N/A	Yes
* If Shut-In, give date and oil/gas/water rates of last production	Date: Expected Rates: 110/330/3	Date: Rates: N/A	Date: Rates: N/A





P.O. Box 2490  
Hobbs, New Mexico 88240  
Telephone 505/393-7106

October 11, 1999

Texaco Exploration & Production Inc.  
P. O. Box 3109  
Midland, Texas 79702-3109

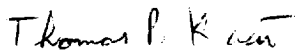
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Thomas P. Kacir  
Production Engineer

TPK/  
Enclosure

Agreed and accepted this 19th day of October 1999  
by Mike Mullins, as representative of  
Texaco Exploration and Production Inc.