

DHC 3/22/00

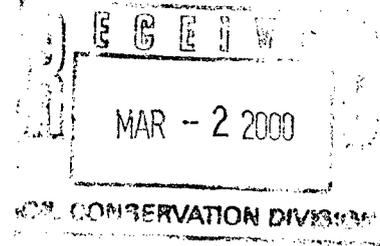
Mid-Continent Region  
Production United States



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

February 28, 2000

Mr. David Catanach  
Oil Conservation Department  
2040 South Pacheco  
Santa Fe, New Mexico 87501



RE: **Request for Exception to Rule 303-A  
Downhole Commingling  
Jicarilla Apache No. 13E  
1850' FNL & 930' FWL  
Unit Letter "E", Section 33, Township 26-N, Range 5-W  
Chacra, Blanco Mesa Verde & Basin Dakota  
Jicarilla Field  
Rio Arriba 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 Chacra, Blanco Mesa Verde and the Basin Dakota pools in Rio Arriba County, New Mexico. Marathon also requests a 30 day exception to Rule 303-A to permit the downhole commingling of production while awaiting for approval of this application. If this application is not approved, then the well will remain as a dual producer from the Blanco Mesa Verde and the Basin Dakota pools.

All three pools represent marginal production. The well was drilled and completed as a dual producer in the Blanco Mesa Verde and the Basin Dakota pools in 1981. The Morrison had been perforated first, but after testing wet, the Morrison perms were isolated before moving uphole to the Basin Dakota and the Blanco Mesa Verde. In 1995, approval was granted by the New Mexico Oil Conservation Division to downhole commingle the Blanco Mesa Verde and the Basin Dakota. Plans are to add perforations in the Chacra and downhole commingle all three pools.

By downhole commingling the production from these three zones, production will be realized that could not economically justify the cost of equipment to separate the zones. Rod pumping equipment will be utilized to keep the PBHP as low as possible. Producing the well in this manner will allow complete development of the productive capacity of the well, prevent crossflow and extend the economic life of both completions, thereby preventing waste.

Enclosed is pertinent data to support this application as outlined in Rule 303-A. If additional information is necessary, please contact me at (915) 687-8268.

Sincerely,

Tim L. Chase  
Advanced Engineer Technician

*39 MCF - Abund  
134 - New Mexico  
1/14/99  
1/14/99  
66 MCF - Dakota  
as per Tim Chase  
3/27/00*

**REQUEST FOR EXCEPTION TO RULE 303-A**  
**Jicarilla Apache No. 13, Jicarilla Field**

**A: Operator**

Marathon Oil Company  
P.O. Box 552, Midland, Texas 79702-0552

**B: Lease Name and Well Number**

Jicarilla Apache No. 13E  
1850' FNL & 930' FWL, Unit Letter "E", Section 33, Township 26-N, Range 5-W  
Jicarilla Field, Rio Arriba County, New Mexico  
Chacra, Blanco Mesa Verde, Basin Dakota

**C: Plats and Offset Operators**

Plat attached. Offset operator list not attached since offset operators no longer need to be notified.

**D: C-116's**

Attached.

**E: Production Decline Curves**

Attached

**F: Estimated Current Bottomhole Pressures (PSI)**

Chacra = 325, Blanco Mesa Verde = 350, Basin Dakota = 375

**G: Product Characteristics**

Previous commingling of these zones by Marathon and other operators in this area 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, so value won't be adversely affected

**I: Production Allocation**

<u>POOL</u>	<u>BOPD</u>	<u>MCFPD</u>	<u>BWPD</u>	<u>Estimation Methods</u>
Chacra	0	100	0	Post-Workover Estimate
Blanco Mesa Verde	3	187.34	2	Current Production
Basin Dakota	1	66	0	Current Production
Total	4	347 300	2	

<u>Allocated %</u>	<u>Oil %</u>	<u>Gas %</u>	<u>Water %</u>	<u>OIL %</u>	<u>GAS %</u>
Chacra	0.00	28.82	0.00	0%	33%
Blanco Mesa Verde	75.00	52.16	100.00	75%	45%
Basin Dakota	25.00	19.02	0.00		
Total	100.00	100.00	100.00	25%	22%

**J: Ownership**

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

**K: Offset Operator Notification**

Offset operators are not provided with a copy of this application since they no longer need to be

247



State of New Mexico  
Energy, Minerals and Natural Resources Department

# OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

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

Form C-116  
Revised 1/1/89

## GAS - OIL RATIO TEST

Operator <b>Marathon Oil Company</b>		Pool <b>Blanco Mesa Verde</b>		County <b>Rio Arriba</b>									
Address <b>P.O. Box 2490 Hobbs, NM 88240</b>		TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> DAILY ALLOWABLE		Completion <input checked="" type="checkbox"/> PROD. DURING TEST <input type="checkbox"/> Special									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STAGE	CHOKESIZE	TBG. PRESS.	LENGTH OF TEST HOURS	PRODUCTION			GAS-OIL RATIO CU.FT./BBL.
		U	S	T						R	WATER BBL.	GRAV. OIL	
Jicarilla Apache	13E	E	33	26N	5W	12/21/99	F	53	24	2	3	181 134	60.334

**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.

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

*Kelley Cook*  
Signature

**Kelley Cook**  
Printed name and title

**December 28, 1999**  
Date

**Records Processor**

**505/393-7106**  
Telephone No.

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

**OIL CONSERVATION DIVISION**

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

2040 Pacheco St.  
Santa Fe, NM 87505

**GAS - OIL RATIO TEST**

Operator		Pool		County										
Marathon Oil Company		Basin Dakota		Rio Arriba										
Address		TYPE OF TEST - (X)	Scheduled	Completion		Special								
P.O. Box 552 Midland, TX 79702			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>								
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	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.
Jicarilla Apache	13E	E	33	26N	5W	11/19/99	F		24	0	39	1	66	N/A

**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.

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



Signature

Tim L. Chase  
Printed name and title

Advanced Engineer Technician

2/9/00

(915) 687-8268

Date

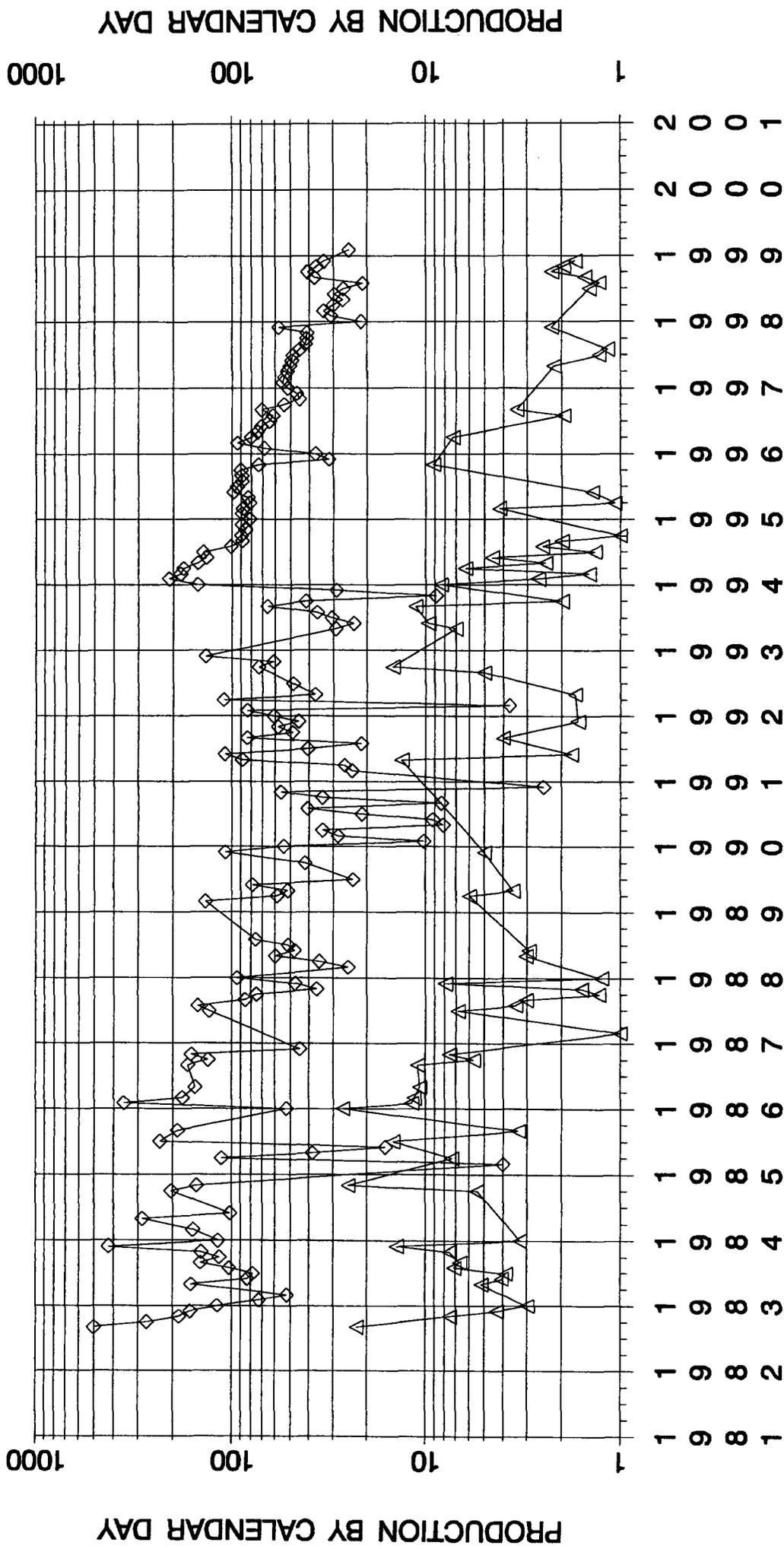
Telephone No.

# Midland Operations

Allocated Production Data

BLANCO MESA VERDE

JICARILLA 13E



DATE

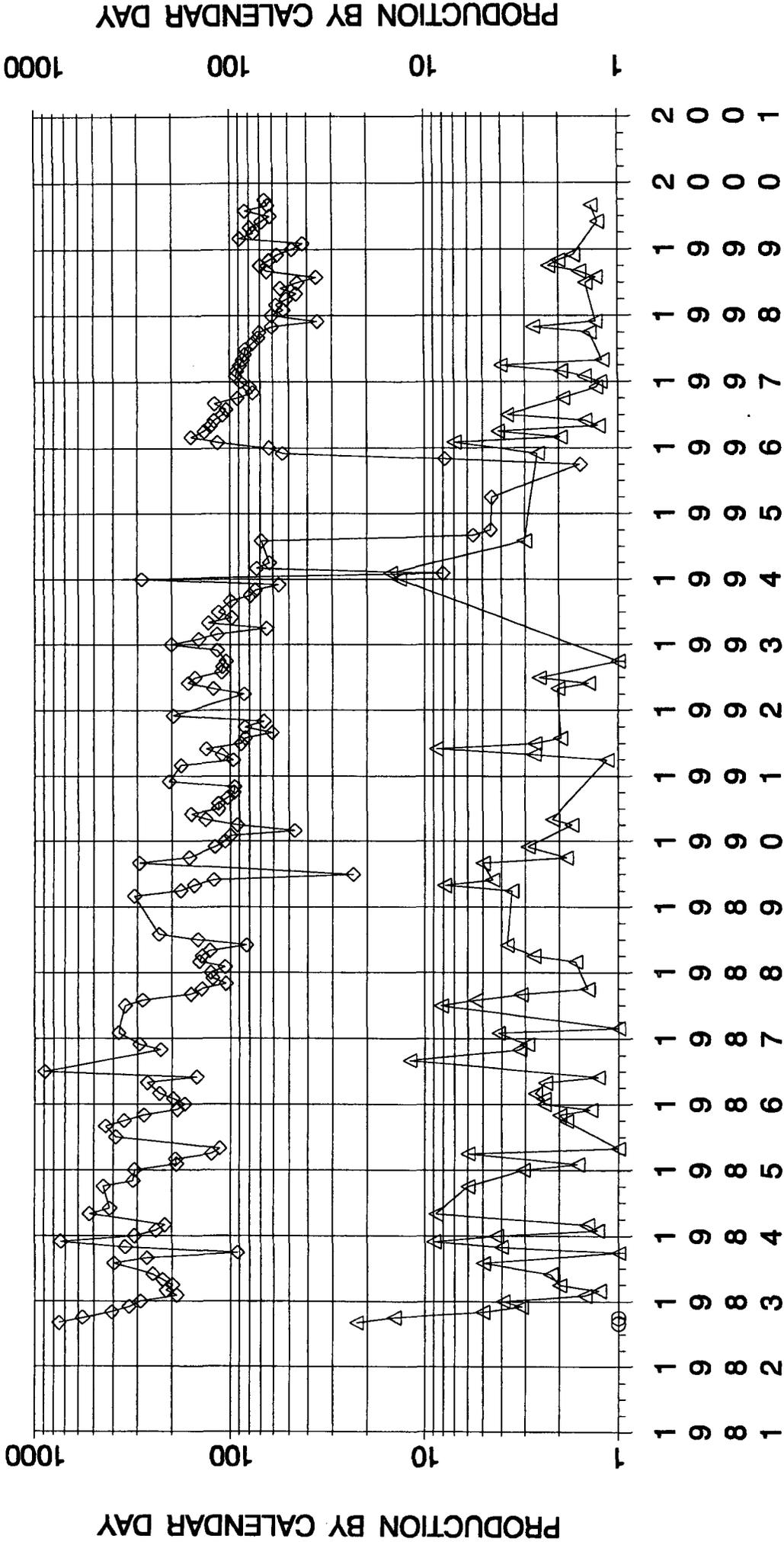
- OIL, BOPD
- WTR, BWPD
- ◇-◇-◇ GAS, MCFPD
- △-△-△ COND, BPD
- INJ, BPD
- + + + DISP, BPD

# Midland Operations

Allocated Production Data

BASIN DAKOTA

JICARILLA 13E



DATE

○-○-○ OIL, BOPD  
 □-□-□ INJ, BPD

○-○-○ WTR, BWPD  
 + + + + DISP, BPD

◇-◇-◇ GAS, MCFPD

△-△-△ COND, BPD

WRF

All distances must be from the outer boundaries of the Section.

Operator <b>MARATHON OIL COMPANY</b>		Lease <b>JICARILLA APACHE</b>			Well No. <b>13E</b>
Unit Letter <b>E</b>	Section <b>33</b>	Township <b>26N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1850</b> feet from the <b>North</b> line and <b>930</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6598</b>	Producing Formation <b>Point Lookout</b>		Pool <b>Blanco Mesaverde</b>	Dedicated Acreage: <b>320</b> Acres	

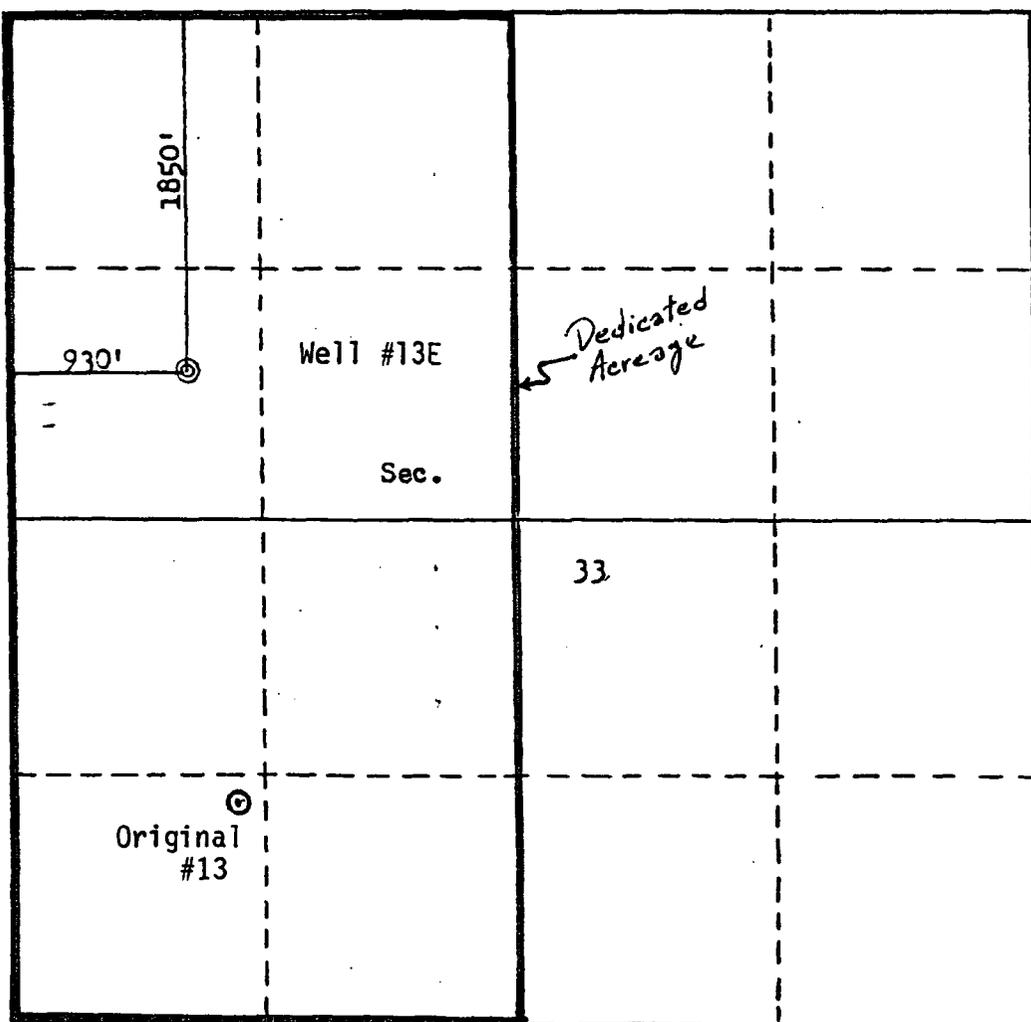
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation N/A

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission. **BLANCO MESAVERDE CERTIFICATION 11-16-81. DALE T. CADDY**

*Dale Caddy*



CERTIFICATION

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

Name	Dale T. Caddy <i>Dale Caddy</i>
Position	District Operations Manager
Company	Marathon Oil Company
Date	April 15, 1980

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 knowledge and belief.

Date Surveyed	March 20, 1980
Registered Professional Engineer and/or Land Surveyor No.	<i>Fred H. Karr Jr.</i>

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

<sup>1</sup> API Number 30-039-20006		<sup>2</sup> Pool Code		<sup>3</sup> Pool Name CHACRA	
<sup>4</sup> Property Code 6414		<sup>5</sup> Property Name Jicarilla Apache			<sup>6</sup> Well Number 13E
<sup>7</sup> OGRID No. 14021		<sup>8</sup> Operator Name Marathon Oil Company			<sup>9</sup> Elevation (GL) 6598'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
E	33	26N	5W		1850	North	930	West	Rio Arriba

<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 320	<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

	<sup>17</sup> OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
	Signature <u>Tim L. Chase</u> Printed Name <u>Advanced Engineer Technician</u> Title <u>February 29, 2000</u> Date	
	<sup>18</sup> 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.	
	Date of Survey	
	Signature and Seal of Professional Surveyor:	
	Certificate Number	

# OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

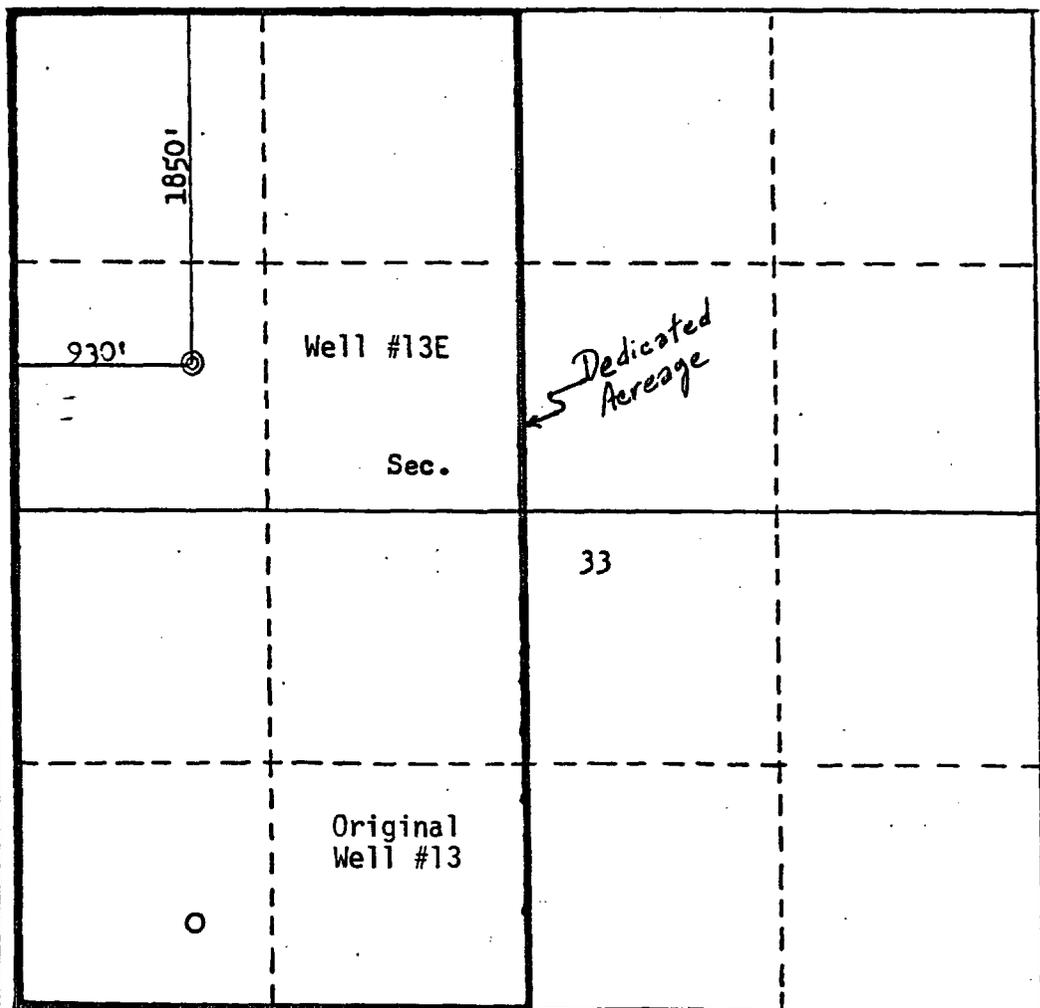
All distances must be from the outer boundaries of the Section.

Operator <b>MARATHON OIL COMPANY</b>			Lease <b>JICARILLA APACHE</b>		Well No. <b>13-E</b>
Unit Letter <b>E</b>	Section <b>33</b>	Township <b>26N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1850</b> feet from the <b>North</b> line and <b>930</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6598</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>	Dedicated Acreage <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?  
  
 Yes     No    If answer is "yes;" type of consolidation           N/A

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



<b>CERTIFICATION</b>
<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>
Name <b>Dale T. Caddy</b> <i>Dale Caddy</i>
Position <b>District Operations Manager</b>
Company <b>Marathon Oil Company</b>
Date <b>April 15, 1980</b>
<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 knowledge and belief.</i>
Date Surveyed <b>March 20, 1980</b>
<b>Fred E. Kerr Jr.</b>

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

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

FORM C-107-A  
New 3-12-96

**DISTRICT II**  
911 S. 1st, Artesia, NM 86210

**OIL CONSERVATION DIVISION**  
2040 S. Pacheco, Santa Fe, NM 87305-6429

**APPROVAL PROCESS:**  
\_\_\_ Administrative \_\_\_ Hearing

**DISTRICT III**  
1000 Rio Brazos, Aztec, NM 87410

**APPLICATION FOR  
DOWNHOLE COMMINGLING**

**EXISTING WELLBORE**  
 Yes \_\_\_ No

**Marathon Oil Company** P.O. Box 552 Midland, Tx 79702

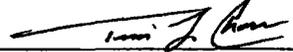
**Jicarilla** 13E Sec 33, T-26N, R-5W, UL "M" Rio Arriba  
LEASE WELL NO. SECTION, TOWNSHIP, RANGE, UNIT LETTER COUNTY

**OGRID NO. 014021** PROPERTY CODE **6414** API NO. **30-039-22446** Federal  State \_\_\_ (and/or) Fee \_\_\_

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zones	Lower Zone
1. Pool Name & Pool Code	Chacra	Blanco Mesa Verde	Basin Dakota
2. Top & Bottom of Pay Section (Perforations)	3950-4750'	5126-5150'	7107-7295'
3. Type of production (Oil or Gas)	N/A	Gas	Gas
4. Method of Production (Flowing or Artificial Lift)	N/A	Artificial Lift	Artificial Lift
5. Bottomhole Pressure Oil Zones-Artificial Lift (Est Current)	a. (Current) 0	a. (Current) 325	a. (Current) 350
	b. (Original) ___	b. (Original) ___	b. (Original) ___
6. Oil Gravity (API) or Gas BTU Content	37 API	38 API	39 API
7. Producing or Shut-in?	Not Yet Perforated	Producing	Producing
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-in, give date and o/g/w rates of last production <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.</small>	Date: N/A Rates: N/A	Date: N/A Rates: N/A	Date: N/A Rates: N/A
* If producing, give date and o/g/w rates of recent test (within 60 days)	Date: N/A Rates: N/A	Date: 12/21/99 Rates: 3/181/2	Date: 11/19/99 Rates: 1/66/0
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 0% Gas: 28.82%	Oil: 75.00% Gas: 52.16%	Oil: 25.00% Gas: 19.02%

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 (no longer necessary)
11. Will crossflow 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. (no longer necessary)
  - \* Notification list of all 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   
TYPE OR PRINT NAME TIM L. CHASE

TITLE Advanced Engineer Technician DATE 02/29/00  
TELEPHONE NO. ( 915 ) 687-8268