

AMEND DHC-659

5/22/01

11303 7470

## CAULKINS OIL COMPANY

P. O. BOX 340

BLOOMFIELD, NEW MEXICO 87413

PHONE: 505-632-1544

FAX 505-632-1471

RECEIVED  
MAY - 2 2001

April 30, 2001

State of New Mexico  
Oil Conservation Division  
ATTN: Mr. David Catanach  
1220 S. St. Francis Drive  
Santa Fe, NM 87504

Re: Administrative Approval to Downhole Commingle  
Breech "F" 45-M, Sec. 35-27N-6W Unit Letter D  
Basin Dakota, Blanco Mesa Verde and Otero Chacra Formations

Dear Mr. Catanach:

Caulkins Oil Company requests approval to downhole commingle this well. Well is currently temporarily abandoned in Dakota – Mesa Verde formations with the Chacra producing above retrievable bridge plug. Well was previously commingled in the Dakota – Mesa Verde formations, order # DHC-659.

Please find the enclosed documents for your approval:

- A. Form C-107-A
- B. Form C-102 for each zone
- C. Production data for Dakota, Mesa Verde and Chacra zones
- D. Bottom hole pressure test for Otero Chacra
- E. Sundry notice notifying BLM of intention to commingle

If you have any questions or need more information, please contact Robert L. Verquer at (505) 632-1544.

Sincerely,



Robert L. Verquer,  
Superintendent

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 South First, Artesia, NM 88210  
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 <b>30-039-23638</b>	<sup>2</sup> Pool Code <b>71599</b>	<sup>3</sup> Pool Name <b>BASIN DAKOTA</b>
<sup>4</sup> Property Code <b>2460</b>	<sup>5</sup> Property Name <b>BREECH "F"</b>	<sup>6</sup> Well Number <b>45-M</b>
<sup>7</sup> OGRID No. <b>003824</b>	<sup>8</sup> Operator Name <b>Caulkins Oil Company</b>	<sup>9</sup> Elevation <b>6577 GR</b>

<sup>10</sup> Surface Location


UL or lot no. <b>D</b>	Section <b>35</b>	Township <b>27N</b>	Range <b>6W</b>	Lot Idn	Feet from the <b>990'</b>	North/South line <b>North</b>	Feet from the <b>990'</b>	East/West line <b>West</b>	County <b>Rio Arriba</b>
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<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
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<sup>12</sup> Dedicated Acres <b>360</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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><sup>6</sup></p>	<sup>17</sup> OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and	
	 Signature	
	Printed Name <b>Robert L. Verquer</b> Title <b>Superintendent</b> Date <b>April 30, 2001</b>	
	<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 my supervision, and that the same is true and correct to the best of my knowledge and belief.	
	Date of Survey	
	Signature and Seal of Professional Surveyor:	
	Certificate Number	

## 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 South Pacheco  
Santa Fe, New Mexico 87505-6429

Form C-107-A

New 3-12-96

APPROVAL PROCESS :

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

CAULKINS OIL COMPANY

P.O. BOX 340, BLOOMFIELD, NM 87413

OPERATOR

ADDRESS

BREECH "F"

45-M

D - SEC. 35-27N-6W

RIO ARRIBA

LEASE

WELL NO.

UNIT LTR - SEC. - TWP. - RGE.

COUNTY

Spacing Unit Lease types: (check 1 or more)

OGRID NO. 003824

Property Code 2460

API NO. 30-039-23638

Federal ☒ , State ☐ , (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	OTERO CHACRA	MESA VERDE	BASIN DAKOTA
2. Top and Bottom of Pay Section (Perforations)	4787' - 4258'	4849' - 5481'	7368' - 7582'
3. Type of production (Oil or Gas)	Gas	Gas and Condensate	Gas and Condensate
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
5. Bottomhole Pressure Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 578 psia Test date: 11-7-00 b. (Original)	a. b. 418 surface shut-in	a. b. 418 surface shut-in
Oil Gravity (° API) or Gas BTU Content	1204 BTU	1138 BTU	1138 BTU
7. Producing or Shut-In	Producing	Temporarily Abandoned	Temporarily Abandoned
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give date and oil/gas/water 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: Rates:	Date: July, 2000 Gas Oil Water Rates: 24 .20 1.3 MCF/D Bbl Bbl	Date: July, 2000 Gas Oil Water Rates: 159 .23 .76 MCF/D Bbl Bbl
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: March, 2001 Gas Oil Water Rates: 80 0.0 0.0 MCF/D Bbl Bbl	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil 0 % Gas 30 %	Oil 46 % Gas 10 %	Oil 54 % Gas 59 %

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 the projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ NoIf not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ NoHave all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. 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 ☐ No13. 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. NMOC Reference Cases of Rule 303© Exceptions: ORDER NO(S). DHC-660, R-7981

## 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 Robert L. Verquer TITLE SUPERINTENDENT DATE April 30, 2001TYPE OR PRINT NAME ROBERT L. VERQUERTELEPHONE NO. (505) 632-1544

District I  
PO Box 1980, Hobbs, NM 88241-1980  
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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 <b>30-039-23638</b>	<sup>2</sup> Pool Code <b>71599</b>	<sup>3</sup> Pool Name <b>BASIN DAKOTA</b>
<sup>4</sup> Property Code <b>2460</b>	<sup>5</sup> Property Name <b>BREECH "F"</b>	
<sup>7</sup> OGRID No. <b>003824</b>	<sup>8</sup> Operator Name <b>Caulkins Oil Company</b>	
		<sup>6</sup> Well Number <b>45-M</b>
		<sup>9</sup> Elevation <b>6577 GR</b>

<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
D	35	27N	6W		990'	North	990'	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 <b>360</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

<sup>6</sup> 					<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and</i>  Signature Printed Name <b>Robert L. Verquer</b> Title <b>Superintendent</b> Date <b>April 30, 2001</b>
					<sup>18</sup> SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by my supervision, and that the same is true and correct to the best of my knowledge and belief.</i> Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

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Santa Fe NM 87505

Form C-102  
Revised October 18, 1994  
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☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-039-23638</b>	<sup>2</sup> Pool Code <b>72319</b>	<sup>3</sup> Pool Name <b>MESA VERDE</b>
<sup>4</sup> Property Code <b>2460</b>	<sup>5</sup> Property Name <b>BREECH "F"</b>	<sup>6</sup> Well Number <b>45-M</b>
<sup>7</sup> OGRID No. <b>003824</b>	<sup>8</sup> Operator Name <b>Caulkins Oil Company</b>	<sup>9</sup> Elevation <b>6577 GR</b>

### <sup>10</sup> Surface Location

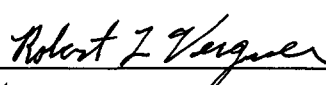
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	27N	6W		990'	North	990'	West	Rio Arriba

### <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 <b>360</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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					<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 my supervision, and that the same is true and correct to the best of my knowledge and belief. Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

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State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-10  
Revised October 18, 199  
Instructions on bac  
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State Lease - 4 Copie  
Fee Lease - 3 Copie

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-23638		<sup>2</sup> Pool Code 82329		<sup>3</sup> Pool Name OTERO CHACRA	
<sup>4</sup> Property Code 2460		<sup>5</sup> Property Name BREECH "F"			<sup>6</sup> Well Number 45-M
<sup>7</sup> OGRID No. 003824		<sup>8</sup> Operator Name Caulkins Oil Company			<sup>9</sup> Elevation 6577 GR

<sup>10</sup> Surface Location

UL or lot no. D	Section 35	Township 27N	Range 6W	Lot Idn	Feet from the 990'	North/South line North	Feet from the 990'	East/West line West	County Rio Arriba
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<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
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<sup>12</sup> Dedicated Acres 160	<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>16</sup> 					<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and
					Signature <u>Robert L. Verquer</u> Printed Name <u>Robert L. Verquer</u> Title <u>Superintendent</u> Date <u>November 13, 2000</u>
					<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 my supervision, and that the same is true and correct to the best of my knowledge and belief.
					Date of Survey _____ Signature and Seal of Professional Surveyor: _____ Certificate Number _____

**LAST 12-MONTHS PRODUCTION  
FOR  
BREECH F 45-M**

**DAKOTA**

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
08/99	3,123	4	1	18	174	0.222
09/99	2,299	2	0	14	164	0.143
10/99	5,302	1	0	31	171	0.032
11/99	5,160	12	2	30	172	0.400
12/99	4,674	10	2	31	151	0.323
01/00	4,447	12	2	30	148	0.400
02/00	4,388	7	1	29	151	0.241
03/00	4,664	8	1	30	155	0.267
04/00	4,442	10	2	30	148	0.333
05/00	4,030	6	1	31	130	0.194
06/00	3,936	3	0	29	136	0.103
07/00	3,940	4	1	31	127	0.129
	<b>50,405</b>	<b>79</b>	<b>13</b>		<b>152</b>	<b>0.232</b>

**MESA VERDE**

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
08/99	497	3	0	18	28	0.167
09/99	367	2	0	14	26	0.143
10/99	844	0	0	31	27	0.000
11/99	821	11	2	30	27	0.367
12/99	750	8	1	31	24	0.258
01/00	714	10	2	30	24	0.333
02/00	704	7	1	29	24	0.241
03/00	747	6	1	30	25	0.200
04/00	714	9	1	30	24	0.300
05/00	654	5	1	31	21	0.161
06/00	636	3	0	29	22	0.103
07/00	640	3	0	31	21	0.097
	<b>8,088</b>	<b>67</b>	<b>9</b>		<b>24</b>	<b>0.198</b>

			CHACRA			
MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
11/00	159	0	0	2	80	0.000
12/00	3,106	0	0	30	104	0.000
01/01	1,467	0	0	31	47	0.000
02/01	2,438	0	0	27	90	0.000
	<b>7,170</b>	<b>0</b>	<b>0</b>		<b>80</b>	<b>0.000</b>

Company: Caulkins Oil Company  
Well: Breech No. F-45-1  
Field:  
Engineer: Neil Tefteller  
Gauge Type: Amerada  
Gauge Range: 0-2700  
Gauge Depth: 4720 ft  
Serial No.: 55170

County: Rio Arriba  
State: New Mexico  
Date: 11/7/2000  
Well Type:  
Test Type: Static Gradient  
Status: Shut in  
File Name: 50535

Tubing: 2 3/8 TO  
Tubing: TO  
Casing: TO  
Perfs.:  
Shut-in Time 168 hrs

Oil Level  
H2O Level

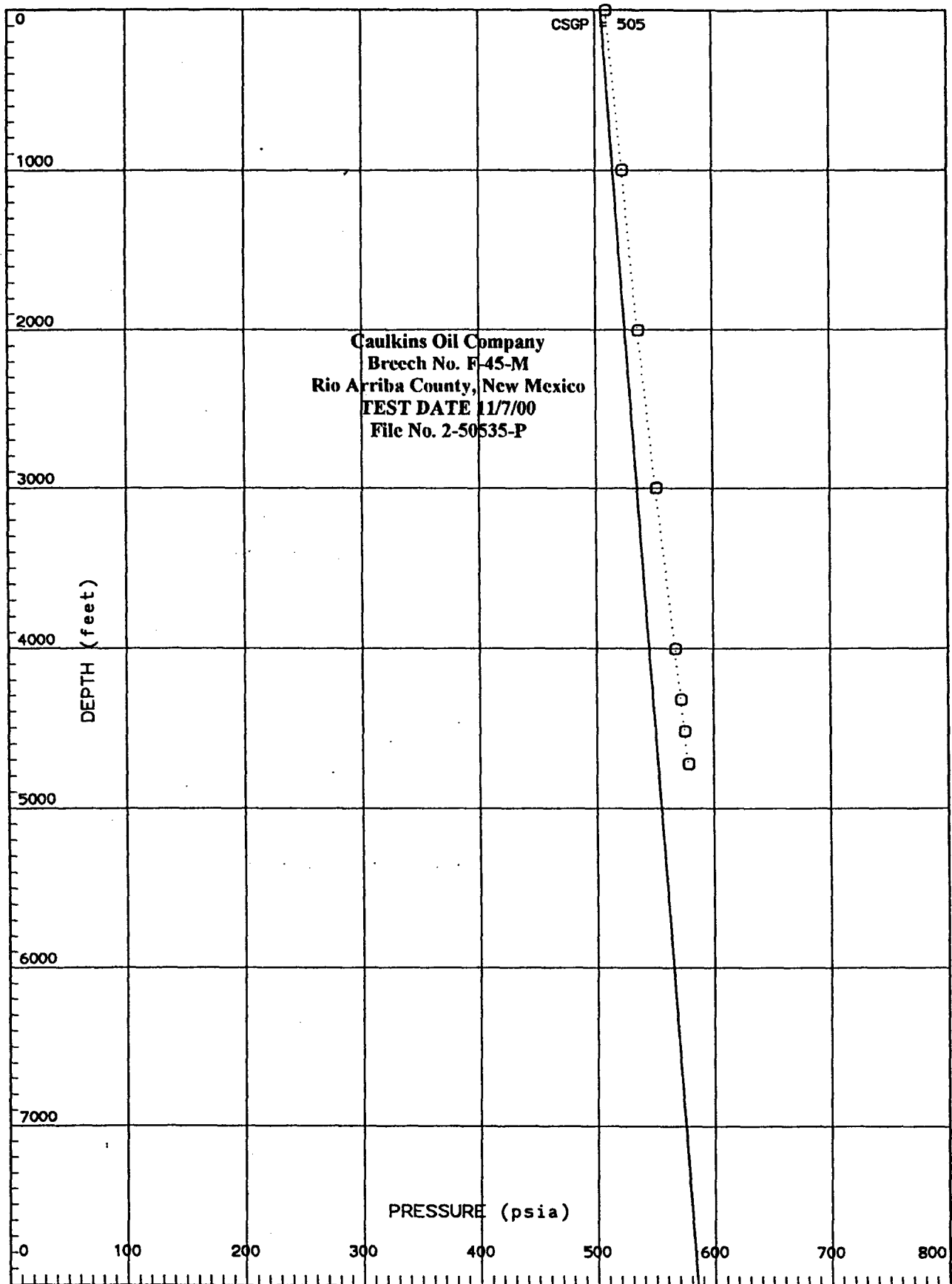
Shut-in BHP 578 @ 4720 ft Shut-in BHT 135 F @ 4720 ft  
Shut-in WHP 509 Shut-in WHT 0 F  
Casing CSGP 505

[ Tefteller Incorporated ]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	509.00	
2	1000	1000	523.00	0.014
3	2000	2000	536.00	0.013
4	3000	3000	551.00	0.015
5	4000	4000	567.00	0.016
6	4320	4320	572.00	0.016
7	4520	4520	575.00	0.015
8	4720	4720	578.00	0.015

SN @ 4720'





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMNM-03547

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)

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

1. Oil Well ☐ Gas Well ☐ Other ☐  
GAS WELL

8. Well Name and No.

BREECH "F" 45-M

2. Name of Operator:

Caulkins Oil Company

9. API Well No.

30-039-23638-00C1

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

10. Field and Pool, Exploratory Area

DAKOTA, MESA VERDE, CHACRA

4. Location of Well (Footage, Sec., Twp., Rge.)

990' F/N 990' F/W

SEC. 35-27N-6W

11. Country or Parish, State

Rio Arriba Co., New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other <u>Commingle Well</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

17. Describe Proposed or Completed Operations:

3-23-01

We request approval to downhole commingle this well by the following procedure.

T.I.H. and latch onto retrievable bridge plug set at 4815'.

T.O.H. with 2 3/8" Otero Chacra production tubing from 4720' with retrievable bridge plug.

T.I.H. with 2 3/8" production tubing, clean out to PBTD with air package.

Land tubing on doughnut at approximately 7560'.

Oil Conservation Division Order #R-11363.

Basin Dakota (71599), Mesa Verde (72319) and Otero Chacra (82329)

Perforations: Dakota (7368' - 7582'), Mesa Verde (4849' - 5481') and Otero Chacra (4258' - 4787')

<u>Allocations</u>	<u>Dakota</u>	<u>Mesa Verde</u>	<u>Chacra</u>
Oil	54%	46%	0%
Gas	59%	10%	31%

(continued on page 2)

NOTE: The format is issued in lieu of U.S. BLM Form 3160-5

18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT

SIGNED: Robert L. Verquer TITLE: Superintendent DATE: March 23, 2001  
ROBERT L. VERQUER

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY

Caulkins Oil Company  
BLM Sundry Notice  
Breech "F" 45-M  
March 23, 2001  
Page 2

Please see attached 12 month production history.

Commingling will not reduce the production value in this well.

No new surface will be disturbed, location area will be cleaned up when workover operations are completed.

Estimated starting date, as soon as rig is available.

New Mexico Oil Conservation Division has been notified of this commingling procedure.