

DHC 3/18/99

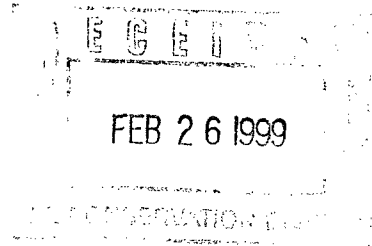
CAULKINS OIL COMPANY

P. O. BOX 340
BLOOMFIELD, NEW MEXICO 87413
PHONE: 505-632-1544
FAX 505-632-1471

22/18

February 25, 1999

State of New Mexico
Oil Conservation Division
ATTN: Mr. David Catanach
2040 S. Pacheco
Santa Fe, NM 87505



Re: Administrative Approval to Downhole Commingle
Breech "C" 144, Sec. 12-26N-6W Unit Letter A
Basin Dakota, South Blanco Tocito and Blanco Mesa Verde Formations

Dear Mr. Catanach:

This well was originally completed as a dual Dakota gas and Tocito oil well October 28, 1964. Approval to plug and abandon Tocito zone and recomplete well as a Mesa Verde - Dakota dual completion was obtained April 29, 1982. August 2, 1982 during preparation to plug and abandon Tocito zone we found well would flow approximately 100 MCF/D plus 5 Bbls/D oil. Sundry notice was sent canceling plug and abandon request and Tocito was put back online for production.

Approval to temporarily abandon Dakota - Tocito zones and re-complete well in the Mesa Verde formation was received June 19, 1997. First delivered Mesa Verde to pipeline December 4, 1998. Since being first delivered Mesa Verde has been capable of only marginal production.

Caulkins Oil Company now is requesting administrative approval to downhole commingle this well in all three zones in an effort to enhance overall production from this well.

Allocation percentages were calculated to Dakota and Tocito zones using the average from September 1997 volume statements. Mesa Verde allocation was calculated using a February 17, 1999 24 hour test.

Please find the enclosed documents:

- A. Form C-107-A
- B. Form C-102 for each zone
- C. Production data for Dakota, Tocito and Mesa Verde zones
- D. Bottom hole pressure tests
- E. Notification list of offset operators
- F. Vicinity Map
- G. 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

Robert L. Verquer,
Superintendent

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A

New 3-12-96

APPROVAL PROCESS :

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

CAULKINS OIL COMPANY

P.O. BOX 340, BLOOMFIELD, NM 87413

OPERATOR ADDRESS

BREECH "C"

144

A - SEC. 12-26N-6W

RIO ARRIBA

LEASE WELL NO. UNIT LTR. - SEC. - TWP. - RGE. COUNTY

OGRID NO. 003824 Property Code 2457 API NO. 30-039-08156 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	Mesa Verde	Tocito	Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	5455' to 5652'	6978' to 6992'	7456' to 7685'
3. Type of production (Oil or Gas)	Gas and Condensate	Gas and Oil	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) 12-3-98 749 Shut-in Pressure	a. 7-10-97 361	a. 7-10-97 577
	b. (Original) 6-24-98 1369 BHP	b.	b.
Oil Gravity (° API) or Gas BTU Content	1243 BTU	1301 BTU	1195 BTU
7. Producing or Shut-In	Producing	Shut-in TA	Shut-in TA
Production Marginal? (yes or no)	Yes	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:	Date: Sept. 1997 Average	Date: Sept. 1997 Average
	Rates:	Rates: Oil Gas Water 5.47 227 0 Bbls/D MCF/D	Rates: Oil Gas Water .35 163 .73 Bbls/D MCF/D Bbls/D
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 2-17-99	Date:	Date:
	Rates Oil Gas Water 1.82 80 1.31 Bbls/D MCF/D Bbls/D	Rates:	Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil 24 % Gas 17 %	Oil 71 % Gas 48 %	Oil 5 % Gas 35 %

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 or Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases of Rule 303© Exceptions: ORDER NO(S). DHC-2102, DHC-1780, DHC-878, DHC-659

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 February 23, 1999

TYPE OR PRINT NAME ROBERT L. VERQUER TELEPHONE NO. (505) 632-1544

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

¹ API Number 30-039-08156	² Pool Code 72319	³ Pool Name MESA VERDE
⁴ Property Code 2458	⁵ Property Name BREECH "C"	⁶ Well Number 144
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company	⁹ Elevation 6700 KB

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
A	12	26N	6W		990'	North	1090'	East	Rio Arriba

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 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

16						¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Printed Name Robert L. Verquer Title Superintendent Date February 23, 1999
						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 knowledge and belief. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number

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
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-08156	² Pool Code 06460	³ Pool Name SOUTH BLANCO TOCITO
⁴ Property Code 2457	⁵ Property Name BREECH "C"	⁶ Well Number 144
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company	⁹ Elevation 6700 KB

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
A	12	26N	6W		990'	North	1090'	East	Rio Arriba

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.
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16					17 OPERATOR CERTIFICATION
					I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
					Signature <i>Robert L. Verquer</i>
					Printed Name Robert L. Verquer
					Title Superintendent
					Date February 23, 1999
					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 knowledge and belief.
					Date of Survey
					Signature and Seal of Professional Surveyor:
					Certificate Number

District I
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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Santa Fe, NM 87505

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-08156		² Pool Code 71599	³ Pool Name BASIN DAKOTA
⁴ Property Code 2457	⁵ Property Name BREECH "C"		⁶ Well Number 144
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company		⁹ Elevation 6700 KB

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
A	12	26N	6W		990'	North	1090'	East	Rio Arriba

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 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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¹⁶	¹⁷ OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
	Signature <i>Robert L. Verquer</i>	
	Printed Name Robert L. Verquer	
	Title Superintendent	
	Date February 23, 1999	
	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 knowledge and belief.	
	Date of Survey	
	Signature and Seal of Professional Surveyor:	
	Certificate Number	

**LAST 12-MONTHS PRODUCTION
FOR
BREECH C 144**

DAKOTA

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
07/96	5,096	24	4	28	182	0.857
10/96	5,234	23	3	31	169	0.742
11/96	5,338	25	4	30	178	0.833
12/96	5,512	24	4	31	178	0.774
01/97	4,911	22	3	29	169	0.759
02/97	4,655	22	3	28	166	0.786
03/97	4,487	21	3	31	145	0.677
05/97	4,442	17	3	30	148	0.567
06/97	4,838	20	3	30	161	0.667
07/97	3,559	13	2	23	155	0.565
08/97	4,757	19	3	31	153	0.613
09/97	2,623	6	1	17	154	0.353
	55,452	236	36		163	0.683

TOCITO

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
08/96	7,289	239	2	31	235	7.710
09/96	6,995	265	3	30	233	8.833
10/96	3,826	130	1	20	191	6.500
11/96	7,055	235	2	30	235	7.833
12/96	5,504	181	2	30	183	6.033
03/97	7,514	234	2	25	301	9.360
04/97	6,899	194	2	29	238	6.690
05/97	6,237	144	1	22	284	6.545
06/97	8,179	241	2	30	273	8.033
07/97	4,374	118	1	22	199	5.364
08/97	7,888	193	2	30	263	6.433
09/97	3,860	93	1	17	227	5.471
	75,620	2,267	21		239	7.067

MESA VERDE

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
12/98	1,869	51	8	28	67	1.821
01/99	1,567	29	4	31	51	0.935
	3,436	80	12		59	1.378

TEFTELLER INC

Pressure Gradient Report

COMP : CAULKINS OIL CO WELL : BREECH C # 144 T : 0.0
 FIELD : RES : TOCITO GALLUP DATUM : 6900.0
 DATE : 07/10/1997 STATUS : S.I. HRS : 168.0
 TBG : 2-3/8 DPTH : END : PKR : S N :
 CSG : DPTH : PERFS : GRAD : 0.019000 T D :

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	288.0		
1000	299.0	11.0	0.0110
2000	309.0	10.0	0.0100
3541	325.0	16.0	0.0104
4541	334.0	9.0	0.0090
5541	345.0	11.0	0.0110
6541	355.0	10.0	0.0100
6741	358.0	3.0	0.0150
6900	361.0	3.0	0.0189
6900	361.0	0.0	

REMARKS : CASING PRESSURE : 300

TUBING PRESSURE : 288

CAULKINS OIL CO
BREECH C # 144
07/10/1997

GRADIENT

TEFTTELLER INC.

0

1600

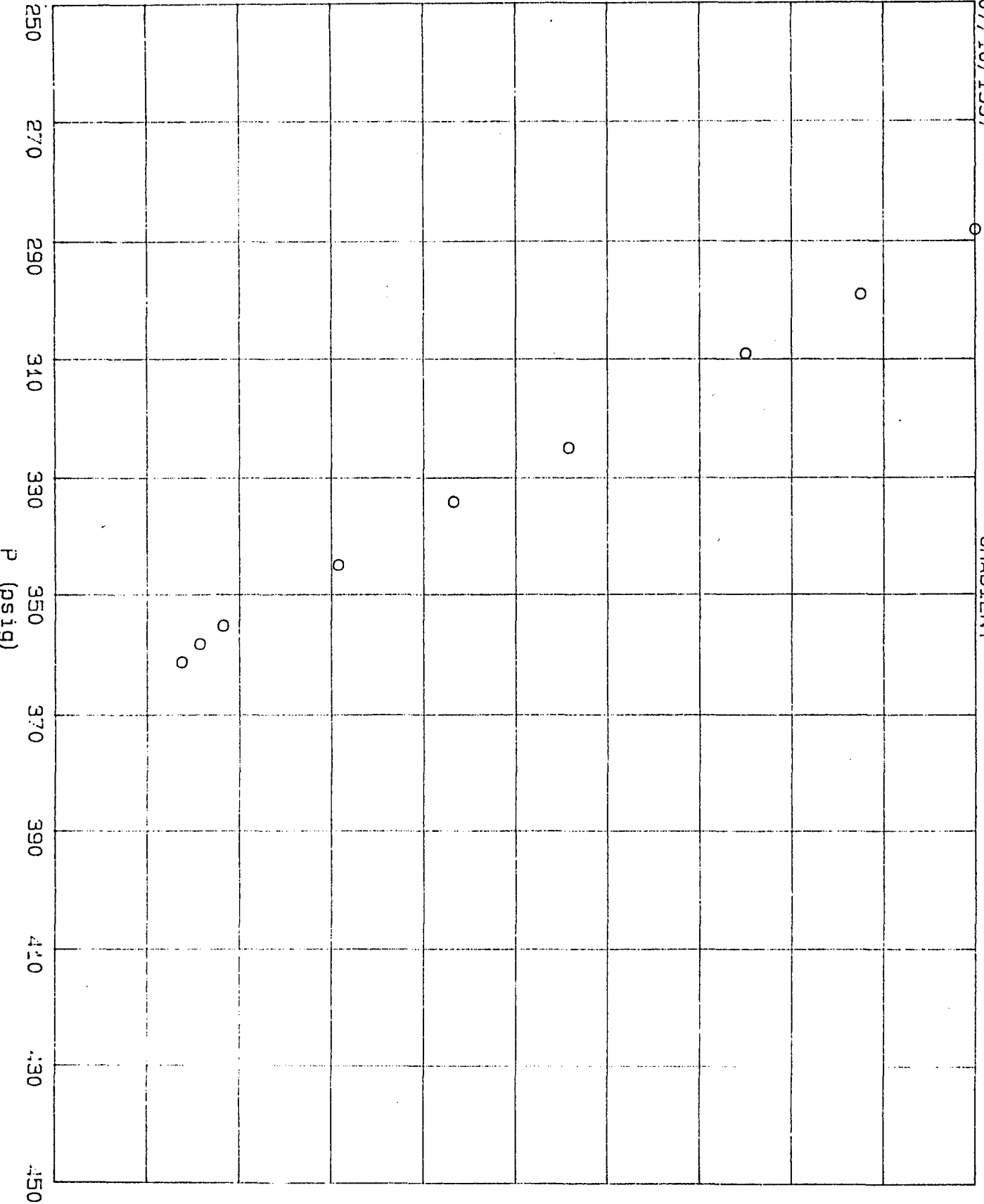
3200

4800

6400

8000

DEPTH (ft)



TEFTELLER INC

Pressure Gradient Report

COMP : CAULKINS OIL CO WELL : BREECH C # 144 T : 0.0
 FIELD : RES : DAKOTA DATUM : 6900.0
 DATE : 07/10/1997 STATUS : S.I. HRS : 168.0
 TBG : 1-1/4 DPTH : END : PKR : S N :
 CSG : DPTH : PERFS : GRAD : 0.025000 T D :

Depth (ft)	Pressure (psig)	Delta P (psi)	Gradient (psi/ft)
0	471.0		
1000	485.0	14.0	0.0140
2000	500.0	15.0	0.0150
3000	515.0	15.0	0.0150
4500	537.0	22.0	0.0147
5500	552.0	15.0	0.0150
6500	567.0	15.0	0.0150
6700	572.0	5.0	0.0250
6900	577.0	5.0	0.0250
6900	577.0	0.0	

REMARKS : CASING PRESSURE : PKR

TUBING PRESSURE : 470

0

CAULKINS OIL CO
BRECH C # 144
07/10/1997

GRADIENT

TEFTELLER INC.

DEPTH (ft)

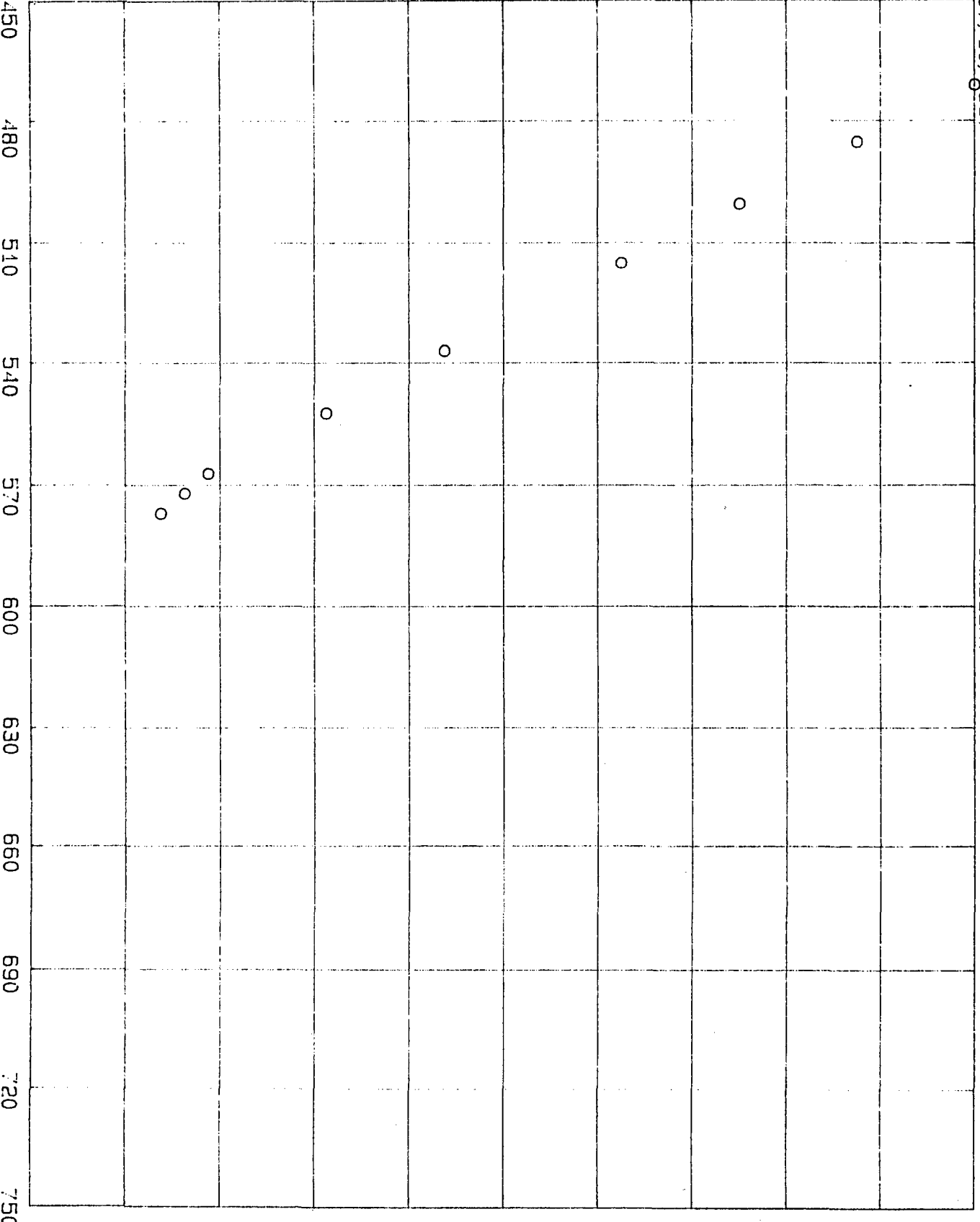
1600

3200

4800

6400

8000



P (psig)

Company: CAULKINS & CO.
Well: BREECH C #144
Field: MESA VERDE FORMATION
Engineer:
Gauge Type: AMERADA
Gauge Range: 0-3000
Gauge Depth: 5290 ft
Serial No.: 44537

County: RIO ARRIBA
State: NEW MEXICO
Date: 06/24/1998
Well Type:
Test Type: STATIC GRADIENT
Status: SHUT-IN
File Name: 32090-3

Tubing: 1 1/2" TO 5302
Tubing: TO
Casing: TO
Perfs.: 5006-5652

Oil Level
H2O Level 2144 ft

Shut-in BHP 1369 @ 5290 ft Shut-in BHT 0 F @ 0 ft
Casing CSGP 1050

[Tefteller Incorporated]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	0.00	
2	1000	1000	0.00	0.000
3	2000	2000	0.00	0.000
4	3000	3000	373.00	0.373
5	4000	4000	809.00	0.436
6	4890	4890	1194.00	0.433
7	5090	5090	1281.00	0.435
8	5290	5290	1369.00	0.440

CS6P - 1050

[Tefteller Incorporated]

Company: CAULKINS OIL CO.
Well: BREECH C #144
Field: MESA VERDE FORMATION

Date: 06/24/1998
[STATIC GRADIENT SURVEY]

1000

2000

3000

4000

5000

DEPTH (feet)

H2O # 2144

PRESSURE (psia)

0

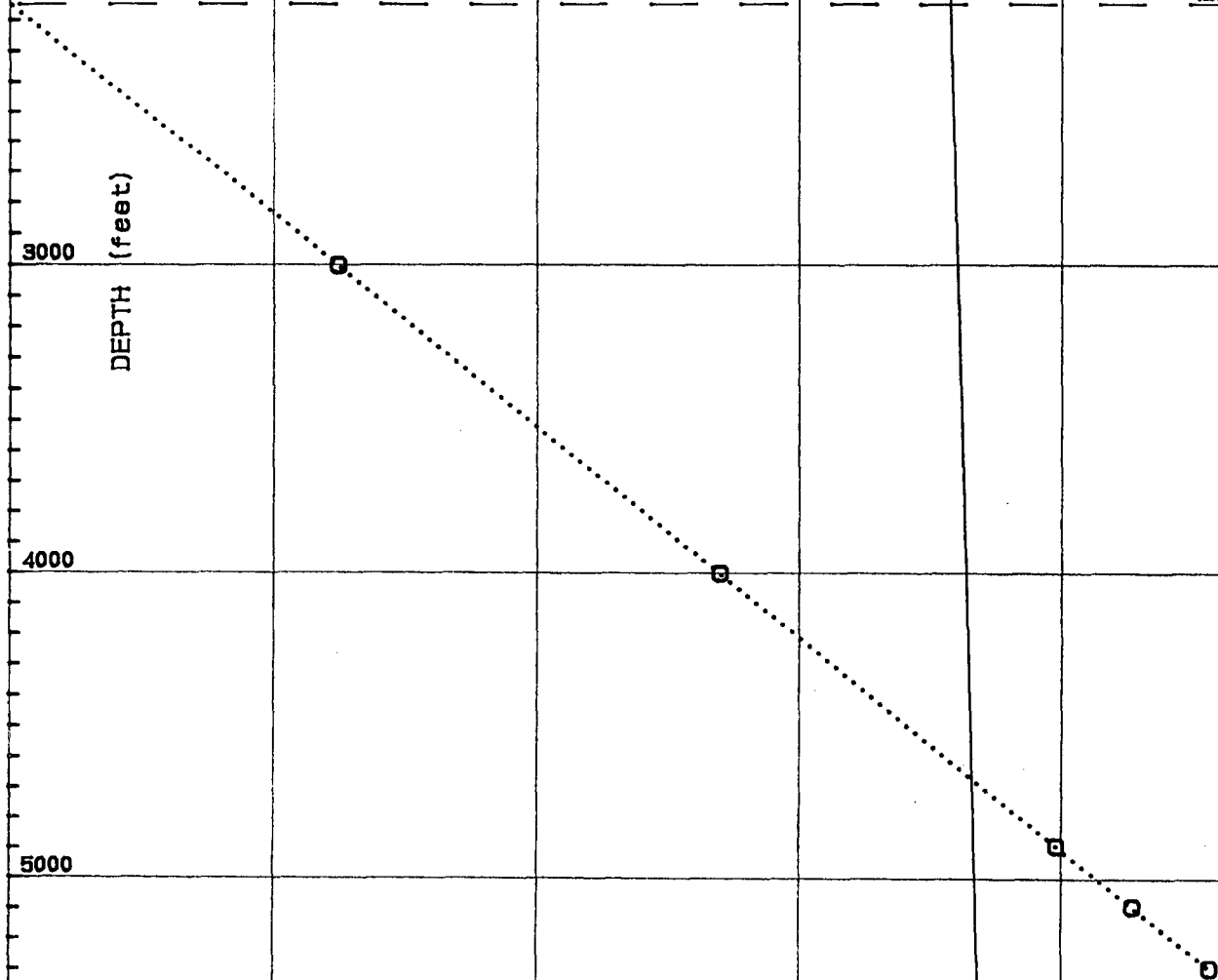
300

600

900

1200

1500



CAULKINS OIL COMPANY

P. O. BOX 340

BLOOMFIELD, NEW MEXICO 87413

PHONE: 505-632-1544

FAX 505-632-1471

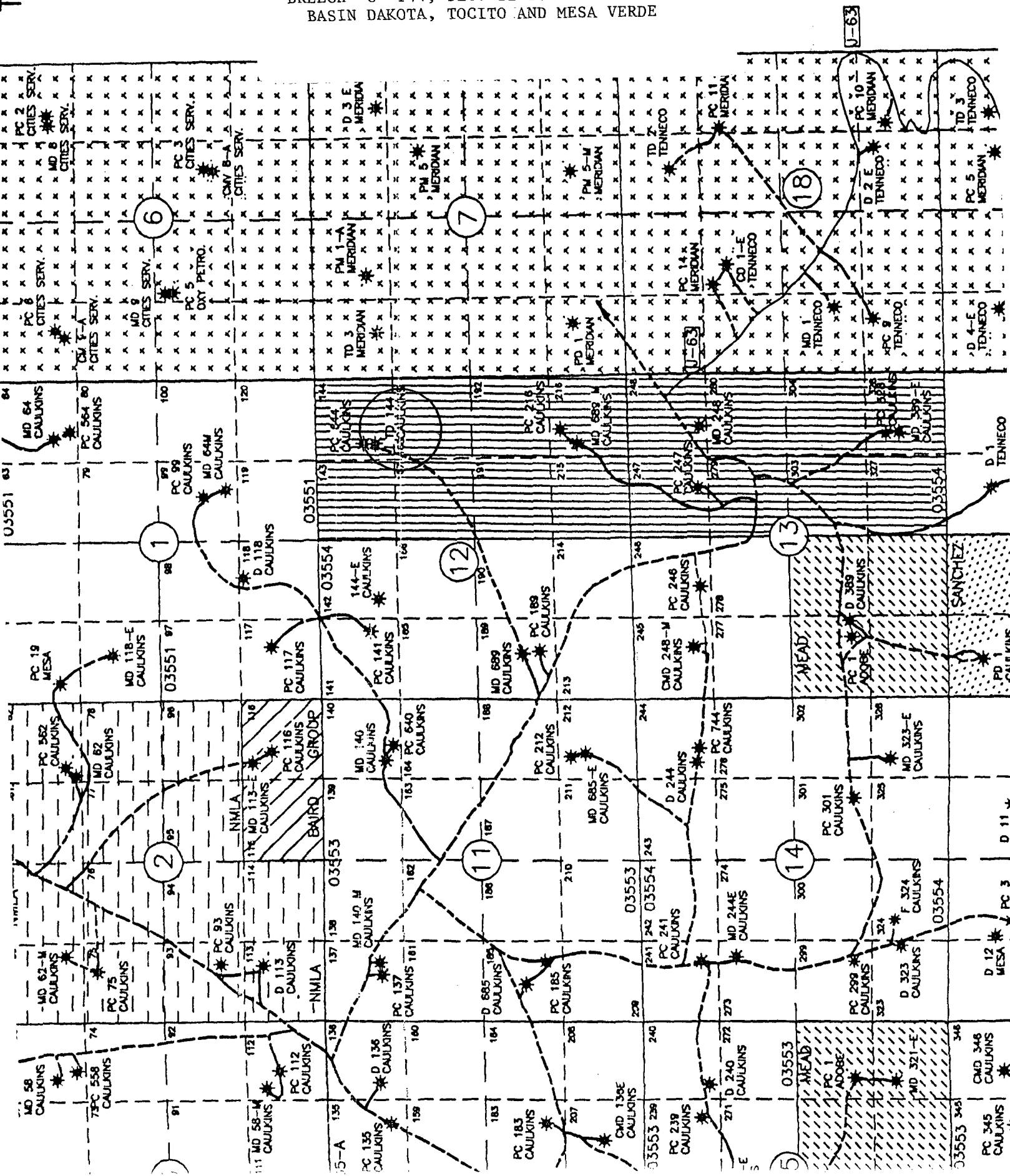
February 25, 1999

The following list is all the offset operators that Caulkins Oil Company has notified by certified mail of the application to downhole commingle and dual complete our Breech "C" 144, section 12, township 26N, range 6W.

Taurus Exploration USA, Inc.
ATTN: Rich Corcoran
2198 Bloomfield Highway
Farmington, NM 87401

Conoco, Inc.
ATTN: Linda Hernandez
3315 Bloomfield Highway
Farmington, NM 87401

CAULKINS OIL COMPANY
VICINITY MAP
APPLICATION TO DOWNHOLE COMMINGLE
BREECH "C" 144, SEC. 12-26N-6W UNIT LTR. A
BASIN DAKOTA, TOCITO AND MESA VERDE



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

NMNM-03554

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 "C" 144

2. Name of Operator:

Caulkins Oil Company

9. API Well No.

30-039-08156-00D1

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

10. Field and Pool, Exploratory Area

BASIN DAKOTA, TOCITO, MESA VERDE

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

990' F/N 1090' F/E

SEC. 12-26N-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

☒ Notice of Intent

☐ Abandonment

☐ Change of Plans

☐ Subsequent Report

☐ Recompletion

☐ New Construction

☐ Final Abandonment Notice

☐ Plugging Back

☐ Non-Routine Fracturing

☐ Casing Repair

☐ Water Shut-Off

☐ Altering Casing

☐ Conversion to Injection

☒ Other Commingle Well

☐ Dispose Water

17. Describe Proposed or Completed Operations:

2-25-99

Caulkins Oil Company has submitted an application to downhole commingle this well to the NMOCD.

Application and documents attached.

Upon approval of commingling application, well will be commingled by the following procedures:

Rig up.

T.O.H. with 2 3/8" tubing now set at 5468'.

T.I.H. with 2 3/8" tubing and retrieving head to retrievable bridge plug set at 5717', release plug, T.O.H.

T.I.H. with 2 3/8" tubing and retrieving head to retrievable bridge plug set at 7037', release plug, T.O.H.

T.I.H. with packer plucker mill to drill out Model "D" packer set at 7436'.

T.O.H. with tubing and packer.

T.I.H. with 2 3/8" tubing, clean out to below bottom Dakota perforation at 7685' with air package.

Land tubing on doughnut at approximately 7600' for commingled Dakota - Tocito - Mesa Verde production string.

Dakota perforations: 7456' to 7685'

Tocito perforations: 6978' to 6992'

Mesa Verde perforations: 5455' to 5652'

No new surface will be disturbed, location area will be cleaned up when work is completed.

Estimated starting date: May 3, 1999

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: February 25, 1999

ROBERT L. VERQUER

APPROVED BY: _____ TITLE: _____ DATE: _____

CONDITIONS OF APPROVAL, IF ANY