

CAULKINS OIL COMPANY

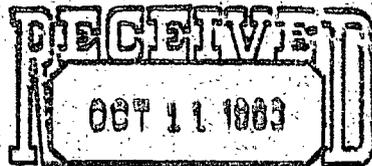
P. O. BOX 780
FARMINGTON, NEW MEXICO 87401
September 29, 1983

RECEIVED

SEP 30 1983

OIL CON. DIV.
DIST. 3

Mr Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410



OIL CONSERVATION DIVISION
SANTA FE

Re: Downhole Commingle
Caulkins Oil Company
Breach 307 M.
Unit O, Sec. 13 26N 7W
Rio Arriba County, New Mexico

Dear Frank:

As per instructions Order No. R-6882, Rule 303C, We hereby request administrative approval for downhole commingling of Mesa Verde and Dakota zones in above described well.

In support of this request we submit the following:

Zones are not economically producible to complete as singles, no cross flow should occur providing well is not shut in for extended period, the ownership of this well is common for both working interest and royalty interests. Bottom hole pressure as measured by BHP Gauge, 1050# for Mesa Verde Zone and 1175# for Dakota Zone at common depth of 4645'.

Acopy of BHP surveys and plat showing acreage dedication and offset operators attached.

WELL COMPLETION HISTORY

TD 6888' reached 8-9-83. New 5 1/2" 15.5 and 17# casing run to 6888. Cemented in three stages. First and second stages circulated. Temperature survey shows top of third stage cement to be 925'.

- 8-17-83 Dakota zone perforated 6652 to 6818.
- 8-18-83 Fractured Dakota zone with 162,000# sand and 2752 bbls. fluid. Perforated Mesa Verde zone 4534 to 4756. Fractured perforations with 80,000# sand and 1472 bbls. fluid.
- 8-19-83 Recovered BP then flowed well until 8-25-83 to clean up. Shut in for test 8-25-83.
- 9-2-83 Potential test with zones commingled. SICP 1225#, SITP 225, After 3 hours thru 3/4" choke, CP 525, TP 75#, Rate of flow 1,232 MCFPD.
- 9-3-83 Ran 1 1/4" NU 10 rd thd tubing to 6751 with Baker Model R production packer set at 4850 to separate zones. Ran 1 1/4" NU 10 rd thd tubing to 4835 for Mesa Verde production. Well then shut in for 7 day buildup.
- 9-10-83 Ran BHP surveys on both zones. Test results attached.
Ran potential test on Dakota zone after BHP test. SITP 887#, Rate of flow after 3 hrs. thru 3/4" choke 949 MCFPD. Mesa Verde zone would not flow under its own power.
- 9-12-83 Pulled tubing from both Mesa Verde and Dakota Zones.

9-13-83 Set BP at 3500' to shut off Mesa Verde and Dakota zones. Perforated Chacra zone 3231 to 3323. Fractured perforations with 60,000# sand and 1449 bbls fluid. Set BP at 2375'. Perforated Pictured Cliffs zone 3381 to 2362. Fractured perforations with 75,000# sand and 1451 bbls fluid.

9-14-83 Recovered BP's at 2375 and 3500.

9-15-83 Ran 1 1/4" NU 10 rd thd. V-55 smls tubing to 6682 with Baker Model R double grip packer set at 3337' for commingled Mesa Verde - Dakota production. Ran 1 1/4" NU 10 rd thd. V-55 smls. tubing to 3300' for commingled Pictured Cliffs - Chacra production. Pictured Cliffs-Chacra commingling approved on Order No. R-5648. Allocation 70% Pictured Cliffs and 30% Chacra.

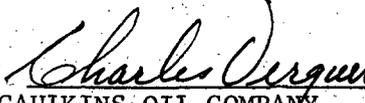
From results of production tests run 9-2-83 and 9-10-83 we recommend production be split as follows:

77% of all gas and 50% of all oil to Dakota Zone.

23% of all gas and 50% of all oil to Mesa Verde zone.

Well number 307 now commingled in Mesa Verde and Dakota zones. Commingling approved on order No. R-5403. 307 allocation of production 85% of all gas and 75% of all oil to Dakota Zone. Mesa Verde zone 15% of all gas and 25% of all oil.

Yours very truly,

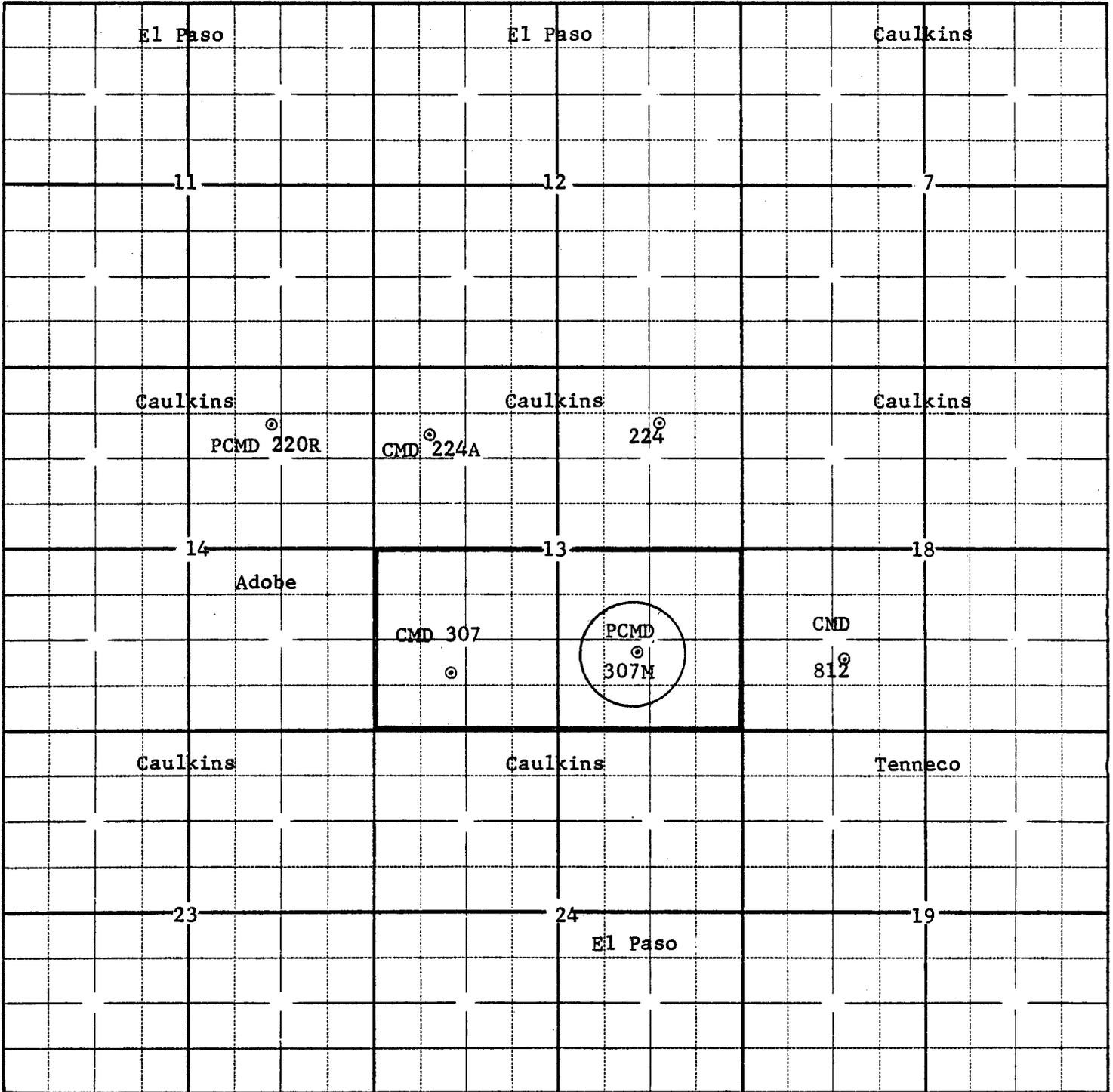
 Supt.
CAULKINS OIL COMPANY

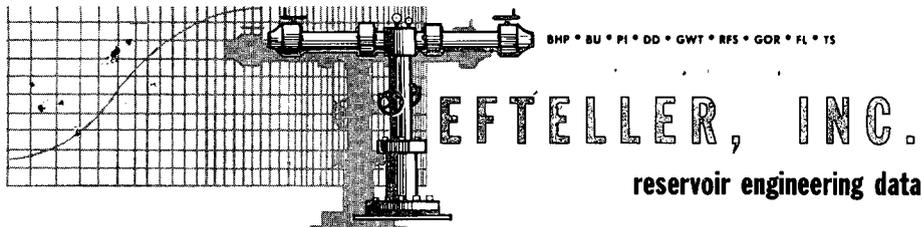
Copy: BLM, Farmington, New Mexico
El Paso Natural Gas Company
Tenneco

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SEP 30 1983
OIL CON. DIV.
DIST. 3

Township 26 North, Range 7 West, County Rio Arriba, State New Mexico

Caulkins Oil Company
Breech 307-M
SE 1/4, Section 13, 26 North, 7 West
Rio Arriba County, New Mexico





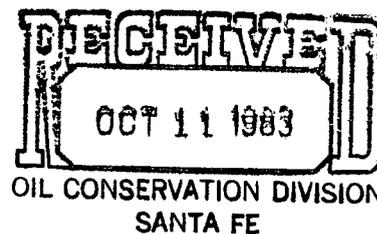
MIDLAND, TEXAS / FARMINGTON, NEW MEXICO
GRAND JUNCTION, COLORADO

P. O. Box 5247
Midland, Texas 79704
(915) 682-5574

September 19, 1983

Caulkins Oil Company
Box 340
Bloomfield, New Mexico 87413

Attention: Mr. Charles Verquer



Subject: Bottom Hole Pressure Measurements
Breech No. 307-M
Basin Dakota Field
Rio Arriba County, New Mexico
Our File No. 2-13899-P

Gentlemen:

Attached hereto are the results of bottom hole pressure measurements which were conducted on the above captioned well September 10, 1983.

The data presented are in tabular and graphical form.

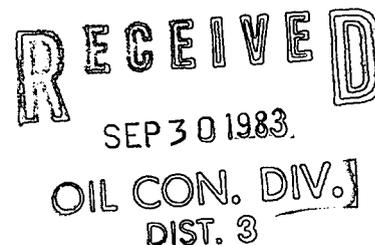
It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

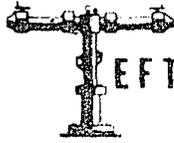
Respectfully submitted,

TEFTELLER, INC.

G. W. Taylor
Operations Manager

GWT/ar





EFTELLER, INC.

reservoir engineering data
MIDLAND, TEXAS

Company CAULKINS OIL COMPANY Lease BREECH Well No. 307-M
Field BASIN DAKOTA County RIO ARRIBA State NEW MEXICO
Formation DAKOTA Test Date SEPTEMBER 10, 1983

Status of Well Shut-in 15½ hours

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
10	887	
2000	937	0.025
4000	998	0.031
6000	1775	0.389
6335	1920	0.433
6535	2007	0.435
6735*	2094	0.435

*Mid-Perf

Datum Pressure Psig

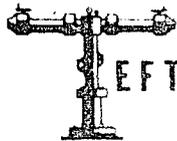
WATER
LEVEL
4221

PRESSURE POUNDS PER SQUARE INCH GAUGE

2400
2000
1600
1200
800
400
0

0 1000 2000 3000 4000 5000 6000 7000
DEPTH: FEET

Elev.	Datum	Ft.
Total Depth 6830	Perf. 6652-6818	Ft.
Tubing 1¼	in. to 6751	Ft.
Casing 5½	in. to 6830	Ft.
Casing Press. PKR.	Tubing Press. 887	
Oil Level	Water Level 4221	
Temperature	°F @	Ft.
Element No. 31196	Range 0-3000	
Last Test Date		
Pressure Last Test Date		Psig
B.H.P. Change	Psi	



EFTELLER, INC.

reservoir engineering data
MIDLAND, TEXAS

Company CAULKINS OIL COMPANY Lease BREECH Well No. 307-M
Field _____ County RIO ARRIBA State NEW MEXICO
Formation MESA VERDE Test Date SEPTEMBER 10, 1983

Status of Well

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
10	525	
2000	557	0.016
4000	775	0.109
4245	870	0.388
4445	961	0.445
4645*	1050	0.445

*Mid-Perf

Datum Pressure Psig

PRESSURE POUNDS PER SQUARE INCH GAUGE

2400
2000
1600
1200
800
400
0

OIL LEVEL
3398'

WATER LEVEL
4117'

Elev.	Datum	Ft.
Total Depth 6830	Perf. 4534-4756	Ft.
Tubing 1 1/4	in. to 4835	Ft.
Casing 5 1/2	in. to 6830	Ft.
Casing Press.	Tubing Press. 525	
Oil Level 3398	Water Level 4117	
Temperature	°F @	Ft.
Element No. 31196	Range 0-3000	
Last Test Date		
Pressure Last Test Date		Psig
B.H.P. Change	Psi	

0 1000 2000 3000 4000 5000 6000 7000
DEPTH: FEET



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
 AZTEC, NEW MEXICO 87410
 (505) 334-6178

OIL CONSERVATION DIVISION
 BOX 2088
 SANTA FE, NEW MEXICO 87501

DATE 10-5-83

RE: Proposed MC _____
 Proposed DHC x _____
 Proposed NSL _____
 Proposed SWD _____
 Proposed WFX _____
 Proposed PMX _____

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 OCT 11 1983
 OIL CONSERVATION DIVISION
 SANTA FE

Gentlemen:

I have examined the application dated 9-30-83
 for the Cambins Oil Company Breach #307M 0-13-26A-1W
 Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Frank J. Lang