

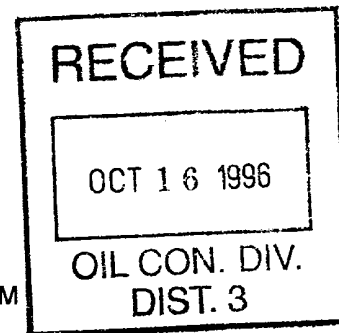
# BURLINGTON RESOURCES

SAN JUAN DIVISION

October 15, 1996

Mr. William LeMay  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: San Juan 27-5 Unit #50  
1650'FNL, 1840'FEL Section 19, T-27-N, R-5-W, Rio Arriba County, NM  
API #30-039-06996



Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the South Blanco Pictured Cliffs and Blanco Mesa Verde pools in the subject well. This is currently a Pictured Cliffs/Mesa Verde dual completion.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas Company is submitting the following for your approval of this commingling:

1. Form C107A - Application for Downhole Commingling;
2. C-102 plat for each zone showing its spacing unit and acreage dedication;
3. Production curve for both the Pictured Cliffs and Mesa Verde for at least one year;
4. Notification list of offset operators - Burlington is the offset operator;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Pictured Cliffs and Mesa Verde.

Notification of Pictured Cliffs and Mesa Verde interest owners is covered under Case #11626 before the New Mexico Oil Conservation Division.

Because we are adding pay in the Mesa Verde, a fixed percent allocation cannot be calculated at this time. Allocation will be based on percentage of pitot gauge obtained during workover.

Please let me know if you require additional data.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield  
Regulatory/Compliance Administrator

encs.

## Well Location and Acreage Dedication Plat

Section A.

Date FEBRUARY 10, 1960

Operator EL PASO NATURAL GAS COMPANY Lease SAN JUAN 27-5 UNIT SB-000607  
 Well No. 50 (PM) Unit Letter G Section 19 Township 27-N Range 5-W NMPM  
 Located 1650 Feet From NORTH Line, 1840 Feet From EAST Line  
 County RIO ARriba G. L. Elevation 6412 Dedicated Acreage 160 & 320 Acres  
 Name of Producing Formation PICTURED CLIFFS & MESA VERDE Pool SO. BLANCO P. C. & BLANCO M. V.

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?  
 Yes \_\_\_\_\_ No X
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes X No \_\_\_\_\_. If answer is "yes", Type of Consolidation.

**Unit Agreement.**

3. If the answer to question two is "no", list all the owners and their respective interests below:

OwnerLand Description

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |

## Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

El Paso Natural Gas Company

(Operator)

ORIGINAL SIGNED B. H. MEANS

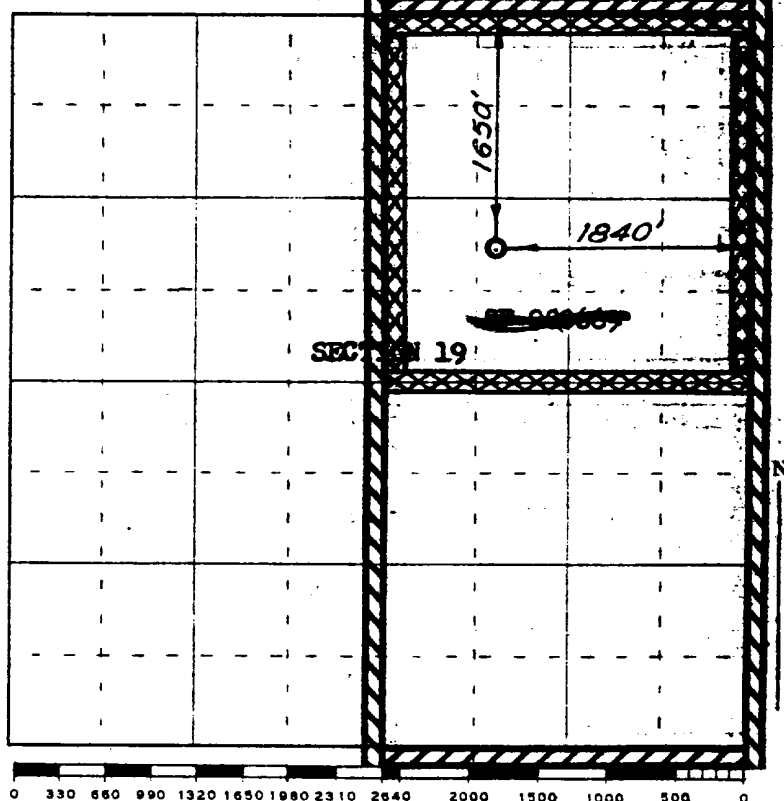
(Representative)

Box 997

(Address)

Farmington, New Mexico

Note: All distances must be from outer boundary of



Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

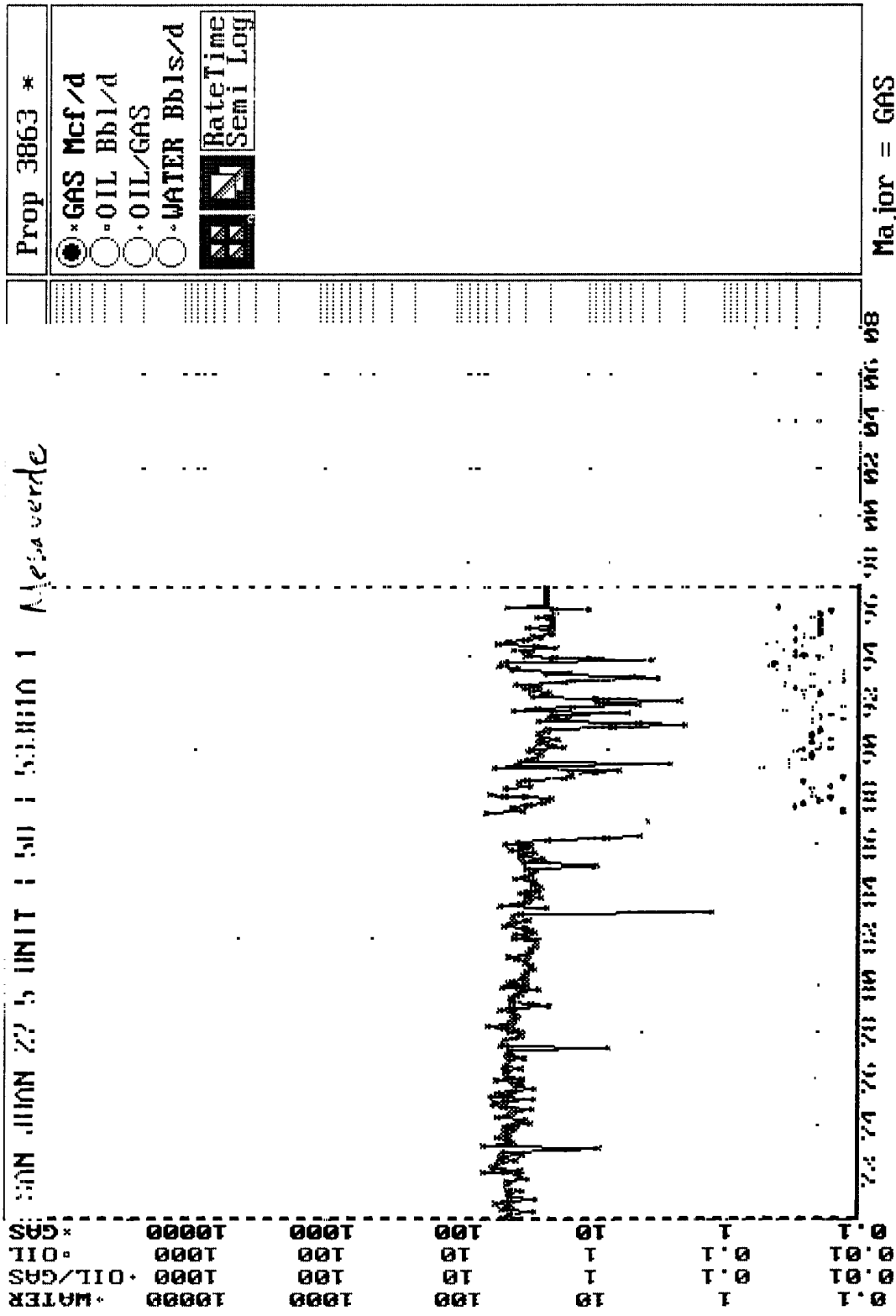
(Seal)

Farmington, New Mexico

Date Surveyed FEBRUARY 8, 1960

David O. Kilven  
 Registered Professional Engineer and/or Land Surveyor



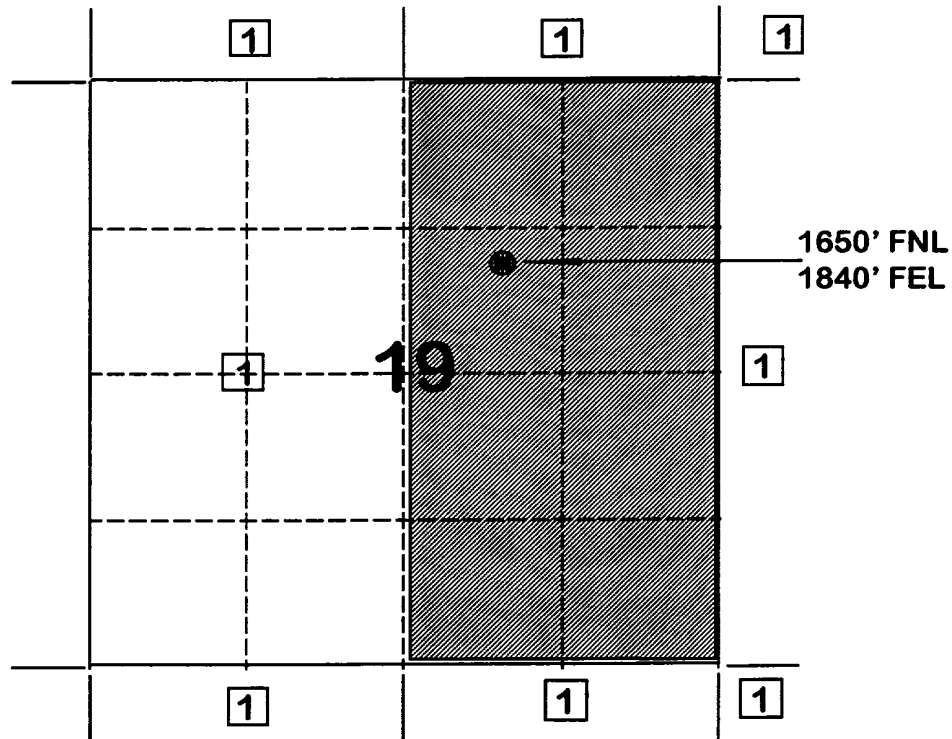


***BURLINGTON RESOURCES OIL AND GAS COMPANY***

**San Juan 27-5 Unit #50  
OFFSET OPERATOR \ OWNER PLAT**

**Mesaverde (E/2) / Pictured Cliffs (NE/4) Formations Commingle Well**

**Township 27 North, Range 5 West**



**1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.**

27-5 #50  
Initial PC

BHP.XLS

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

|                                |        |
|--------------------------------|--------|
| GAS GRAVITY                    | 0.679  |
| COND. OR MISC. (C/M)           | M      |
| %N2                            | 0.2    |
| %CO2                           | 0.99   |
| %H2S                           | 0      |
| DIAMETER (IN)                  | 2.441  |
| DEPTH (FT)                     | 3162   |
| SURFACE TEMPERATURE (DEG F)    | 60     |
| BOTTOMHOLE TEMPERATURE (DEG F) | 100    |
| FLOWRATE (MCFPD)               | 1000   |
| SURFACE PRESSURE (PSIA)        | 1082   |
| BOTTOMHOLE PRESSURE (PSIA)     | 1188.7 |

27-5 #50 Current KC

BHP.XLS

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

|                                |       |
|--------------------------------|-------|
| GAS GRAVITY                    | 0.679 |
| COND. OR MISC. (C/M)           | M     |
| %N2                            | 0.2   |
| %CO2                           | 0.99  |
| %H2S                           | 0     |
| DIAMETER (IN)                  | 2.441 |
| DEPTH (FT)                     | 3162  |
| SURFACE TEMPERATURE (DEG F)    | 60    |
| BOTTOMHOLE TEMPERATURE (DEG F) | 100   |
| FLOWRATE (MCFPD)               | 1000  |
| SURFACE PRESSURE (PSIA)        | 263   |
| BOTTOMHOLE PRESSURE (PSIA)     | 293.0 |

27-5 #50 Initial MV

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**  
VERSION 1.0 3/13/94

|                                |        |
|--------------------------------|--------|
| GAS GRAVITY                    | 0.666  |
| COND. OR MISC. (C/M)           | M      |
| %N2                            | 0.24   |
| %CO2                           | 1.08   |
| %H2S                           | 0      |
| DIAMETER (IN)                  | 2.441  |
| DEPTH (FT)                     | 4800   |
| SURFACE TEMPERATURE (DEG F)    | 60     |
| BOTTOMHOLE TEMPERATURE (DEG F) | 120    |
| FLOWRATE (MCFPD)               | 1000   |
| SURFACE PRESSURE (PSIA)        | 1075   |
| BOTTOMHOLE PRESSURE (PSIA)     | 1229.9 |



27-5 #50 Current MV

BHP.XLS

**FLOWING AND STATIC BHP  
CULLENDER AND SMITH METHOD**  
VERSION 1.0 3/13/94

|                                |       |
|--------------------------------|-------|
| GAS GRAVITY                    | 0.666 |
| COND. OR MISC. (C/M)           | M     |
| %N2                            | 0.24  |
| %CO2                           | 1.08  |
| %H2S                           | 0     |
| DIAMETER (IN)                  | 2.441 |
| DEPTH (FT)                     | 4800  |
| SURFACE TEMPERATURE (DEG F)    | 60    |
| BOTTOMHOLE TEMPERATURE (DEG F) | 120   |
| FLOWRATE (MCFPD)               | 1000  |
| SURFACE PRESSURE (PSIA)        | 544   |
| BOTTOMHOLE PRESSURE (PSIA)     | 619.5 |

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782

0008 CHROMATOGRAPH TEST MAIN SCREEN

18:27:22.5 10/01/96

FUNCTION (A,C,D,I) I \*\* DATA AT TEST PRESSURE UNLESS NOTED \*\*  
 MP NUMBER 74994 SAN JUAN 27-5 UNIT 50 (PC)  
 EFFECTIVE DATE 19950301  
 REGION CD 42 SAN JUAN  
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

-----  
 SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----  
 SAMPLE DATE 19950208 --- (AT 14.73 PSIG) ---  
 SAMPLE LINE PRESSURE (PSIG) WET 1158.502 DRY 1179.000  
 SAMPLE LINE TEMPERATURE (DEG F) -----  
 TEST DATE ----- BTU/CF -----  
 TEST PRESSURE (PSIG) 14.730 WET 1158.502 DRY 1179.000  
 TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR -----  
 TEST LIFE (MONTHS) 6  
 TESTER SOURCE BA NUMBER 888029 EL PASO NATURAL GAS  
 TEST PURPOSE CODE -----

-----  
 03=DETAIL SCR 04=MP-NM BRWS 06=MP/DS LST 07=MP/WN LST  
 11=PREV SCR 12=MAIN MENU 20=NEXT REC  
 21=REFRESH SCR 22=PREV MENU 24=HELP PA1=TERMINATE  
 B MY JOB LU #2

OPR008M2 0782

0008 CHROMATOGRAPH GAS SAMPLE DETAIL

18:28:04.3 10/01/96

GPM \*\* DATA AT 14.730 PSIG UNLESS NOTED \*\*  
 MOL % (AT 14.73)  
 HYDROGEN  
 HELIUM  
 NITROGEN 0.20  
 OXYGEN  
 HYDROGEN SULFIDE  
 CARBON DIOXIDE 0.99  
 METHANE 84.72  
 ETHANE 8.47 2.2657  
 PROPANE 3.43 0.9453  
 ISO-BUTANE 0.63 0.2061  
 N-BUTANE 0.79 0.2491  
 ISO-PENTANE 0.26 0.0951  
 N-PENTANE 0.17 0.0616  
 HEXANE  
 HEXANE PLUS 0.34 0.1483  
 HEPTANE PLUS  
 TOTALS 100.00 3.9712  
 MP NUMBER 74994  
 EFFECTIVE DATE 19950301  
 -- GASOLINE CONTENT (GPM) --  
 26/70 GASOLINE  
 100% PROPANE  
 EXCESS BUTANES  
 TOTAL  
 ----- SPECIFIC GRAVITY -----  
 CALCULATED 0.6790  
 MEASURED  
 SULPHUR GRAINS / 100 CU FT

-----  
 03=MAIN SCREEN 24=HELP PA1=TERMINATE  
 B MY JOB NUM LU #2

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782

0008 CHROMATOGRAPH TEST MAIN SCREEN

18:36:29.0 10/01/96

FUNCTION (A,C,D,I) I \*\* DATA AT TEST PRESSURE UNLESS NOTED \*\*  
 MP NUMBER 72604 SAN JUAN 27-5 UNIT 50 (MV)  
 EFFECTIVE DATE 19950301  
 REGION CD 42 SAN JUAN  
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----  
 SAMPLE DATE 19950208 --- (AT 14.73 PSIG) ---  
 SAMPLE LINE PRESSURE (PSIG) WET 1135.901 DRY 1156.000  
 SAMPLE LINE TEMPERATURE (DEG F) -----  
 TEST DATE ----- BTU/CF -----  
 TEST PRESSURE (PSIG) 14.730 WET 1135.901 DRY 1156.000  
 TEST TEMPERATURE (DEG F) 60 VAPOR FACTOR -----  
 TEST LIFE (MONTHS) 6  
 TESTER SOURCE BA NUMBER 888029 EL PASO NATURAL GAS  
 TEST PURPOSE CODE -----

03=DETAIL SCR 04=MP-NM BRWS 06=MP/DS LST 07=MP/WN LST  
 11=PREV SCR 12=MAIN MENU 20=NEXT REC  
 21=REFRESH SCR 22=PREV MENU 24=HELP PA1=TERMINATE  
 B MY JOB LU #2

OPR008M2 0782







0008 CHROMATOGRAPH GAS SAMPLE DETAIL

18:37:14.9 10/01/96

MOL % GPM \*\* DATA AT 14.730 PSIG UNLESS NOTED \*\*  
 (AT 14.73)  
 HYDROGEN ----- MP NUMBER 72604  
 HELIUM ----- EFFECTIVE DATE 19950301  
 NITROGEN 0.24  
 OXYGEN -----  
 HYDROGEN SULFIDE ----- -- GASOLINE CONTENT (GPM) --  
 CARBON DIOXIDE 1.08 26/70 GASOLINE -----  
 METHANE 85.96 100% PROPANE -----  
 ETHANE 7.95 2.1266 EXCESS BUTANES -----  
 PROPANE 2.95 0.8130 TOTAL -----  
 ISO-BUTANE 0.46 0.1505  
 N-BUTANE 0.73 0.2302  
 ISO-PENTANE 0.24 0.0878 ----- SPECIFIC GRAVITY -----  
 N-PENTANE 0.16 0.0580 CALCULATED 0.6660  
 HEXANE ----- MEASURED -----  
 HEXANE PLUS 0.23 0.1003  
 HEPTANE PLUS -----  
 TOTALS 100.00 3.5664 SULPHUR GRAINS / 100 CU FT -----

03=MAIN SCREEN 24=HELP PA1=TERMINATE  
 B MY JOB NUM LU #2

[illegible]

- |   |                      |   |                |
|---|----------------------|---|----------------|
|  | FRUITLAND SAND WELL  |  | MESAVERDE WELL |
|  | FRUITLAND COAL WELL  |  | DAKOTA WELL    |
|  | PICTURED CLIFFS WELL |  | GALLUP WELL    |

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980  
DISTRICT II  
811 South First St., Artesia, NM 88210-2835  
DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico  
Energy, Minerals and Natural Resources Department  
**OIL CONSERVATION DIVISION**  
2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

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

APPROVAL PROCESS :

☒ Administrative  
☐ Hearing

**APPLICATION FOR DOWNHOLE COMMINGLING**

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 27-5 Unit

50

G-19-27N-5W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7454 API NO. 30-039-06996 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  | South Blanco Pictured Cliffs-72439                       | RECEIVED              | Blanco Mesavaerde - 72319                |
| 2. Top and Bottom of Pay Section (Perforations)   | 3162-3226'   | OCT 16 1996           | 4800-5410'                               |
| 3. Type of production (Oil or Gas)  | Gas  |                       | Gas                                      |
| 4. Method of Production (Flowing or Artificial Lift)  | Flowing  | OIL CON. DIV. DIST. 3 | Flowing                                  |
| 5. Bottomhole Pressure<br>Oil Zones - Artificial Lift:<br>Estimated Current<br>Gas & Oil - Flowing:<br>Measured Current<br>All Gas Zones:<br>Estimated or Measured Original                                   | (Current)<br>a. 293 psi<br><br>(Original)<br>b. 1189 psi | a.<br><br>b.          | a. 620 psi<br><br>b. 1230 psi            |
| 6. Oil Gravity ( <sup>o</sup> API) or Gas BTU Content   | BTU 1148   |                       | BTU 1261                                 |
| 7. Producing or Shut-In?  | producing  |                       | producing                                |
| Production Marginal? (yes or no)  | yes  |                       | yes                                      |
| * If Shut-In and oil/gas/water rates of last production<br><br><small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.</small> | Date:<br>Rates:  | Date:<br>Rates:       | Date:<br>Rates:                          |
| * If Producing, give data and oil/gas/water of recent test (within 60 days)   | Date: 9/29/96<br>Rates: 18 MCF/D, 0 BOPD                 | Date:<br>Rates:       | Date: 9-29-96<br>Rates: 42 MCF/D, 0 BOPD |
| 8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)  | Oil: % Gas: %  | Oil: % Gas: %         | Oil: % Gas: %                            |

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 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 for Rule 303(D) Exceptions: ORDER NO(S). Case #11626

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 Peggy Bradfield TITLE Regulatory Administrator DATE 10-2-96

TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. ( 505 ) 326-9700