

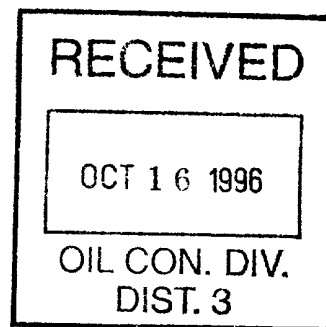
BURLINGTON RESOURCES

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 #48 *K*
1650'FSL, 1650'FWL Section 19, T-27-N, R-5-W, Rio Arriba County, NM
API #30-039-06974



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.

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

48

K-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. 30-045-06974 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 OCT 16 1996 OIL CON. DIV. DIST. 3	Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3114-3152'		4726-5402'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 178 psi (Original) b. 1188 psi	a. b.	a. 604psi b. 1228 psi
6. Oil Gravity (°API) or Gas BTU Content	BTU 1138		BTU 1180
7. Producing or Shut-In?	producing		producing
Production Marginal? (yes or no)	yes		no
* If Shut-In 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 * If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: Rates: Date: 9-29-98 rates: 16 MCF/D	Date: Rates: Date: Rates:	Date: Rates: Date: 9-29-98 Rates: 520 MCF/D
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)			

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. NMOCD 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

Section A.

Date **FEBRUARY 13, 1959**

Operator **EL PASO NATURAL GAS COMPANY** Lease **SAN JUAN 27-5 UNIT** SF **079392**
 Well No. **48(PM)** Unit Letter **K** Section **19** Township **27-N** Range **5-W** NEPM
 Located **1650** Feet From **SOUTH** Line **1650** Foot From **WEST** Line
 County **RIO ARriba** G. L. Elevation **6565** Deducted Acreage **321.82 & 160.83** Acres
 Name of Producing Formation **MESA VERDE & PICTURED CLIFF** Paid **MV BLANCO, PC - SO. BLANCO PC EX**

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

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

Owner

Land Description

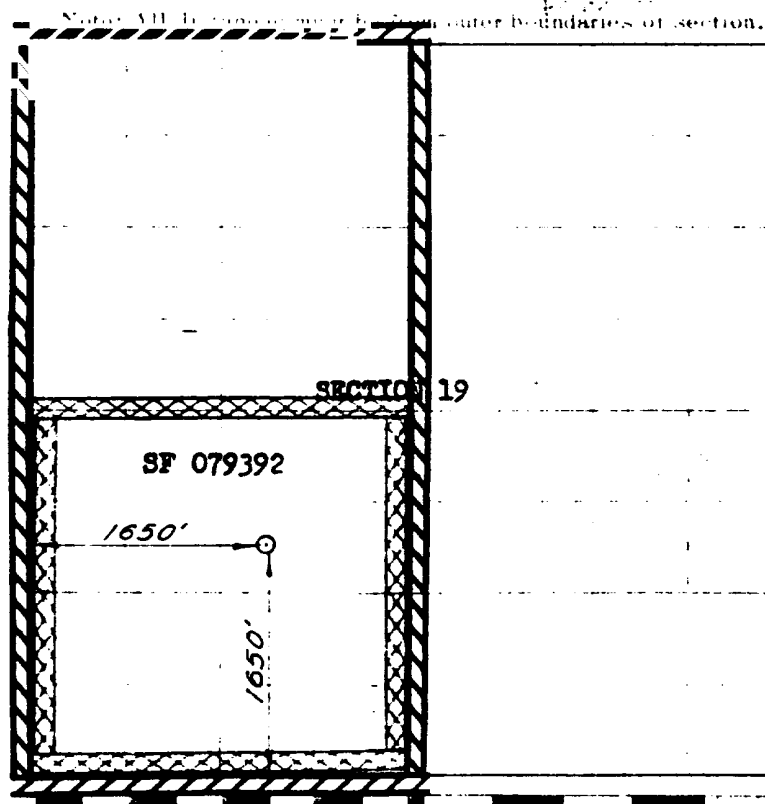
Section B.

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 J.J. TILLERSON
 (Representative)

Box 997
 (Address)

Farmington, New Mexico



0 330 660 990 1320 1650 1980 2310 2640 2970 3300

Scale: 1 inch equals 1 mile

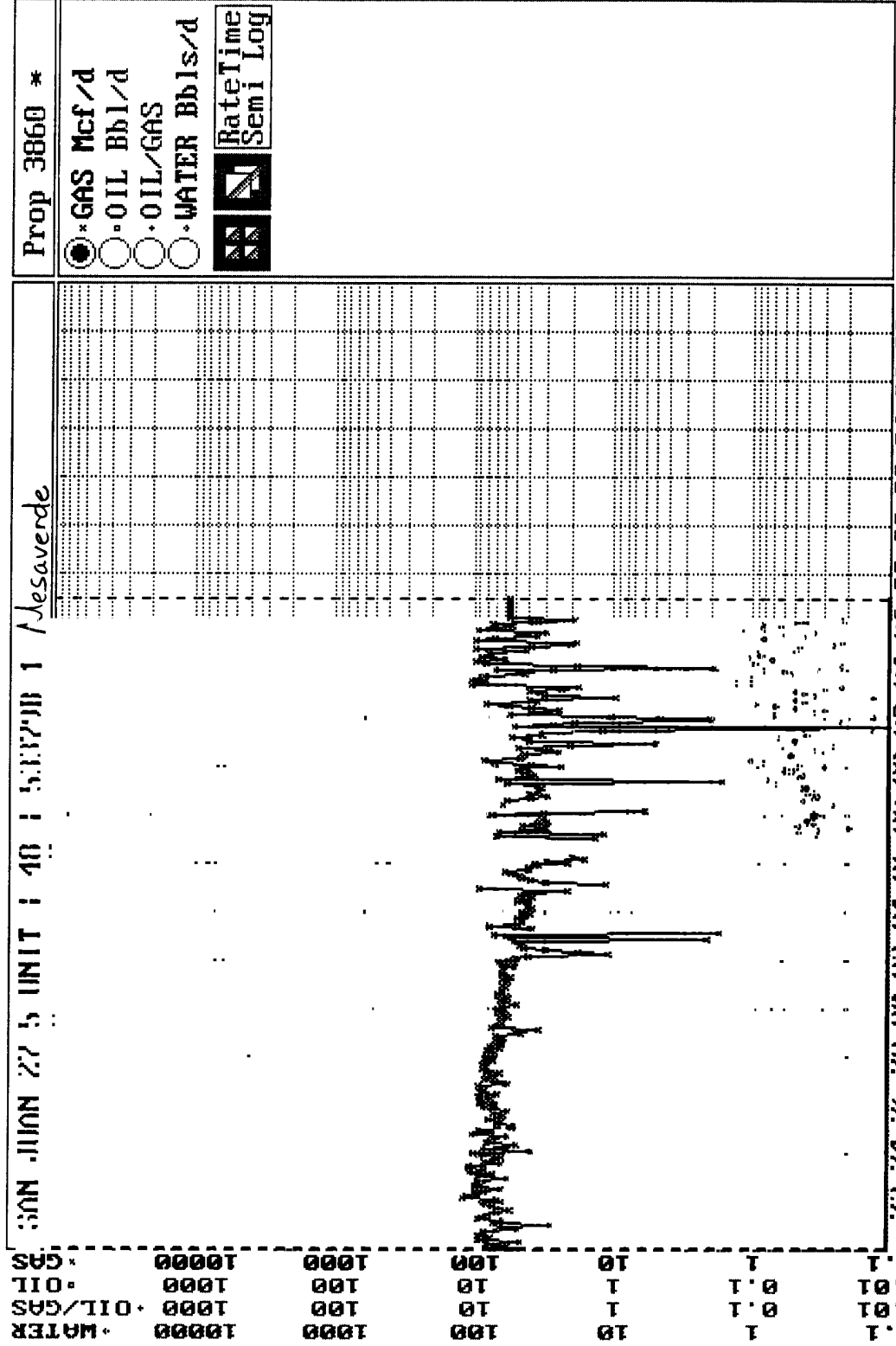
This is to certify that the above plat was prepared from field notes of actual survey made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Seal:

Date Surveyed **FEBRUARY 14, 1959**

Farmington, New Mexico

Registered Professional Engineer and/or Land Surveyor



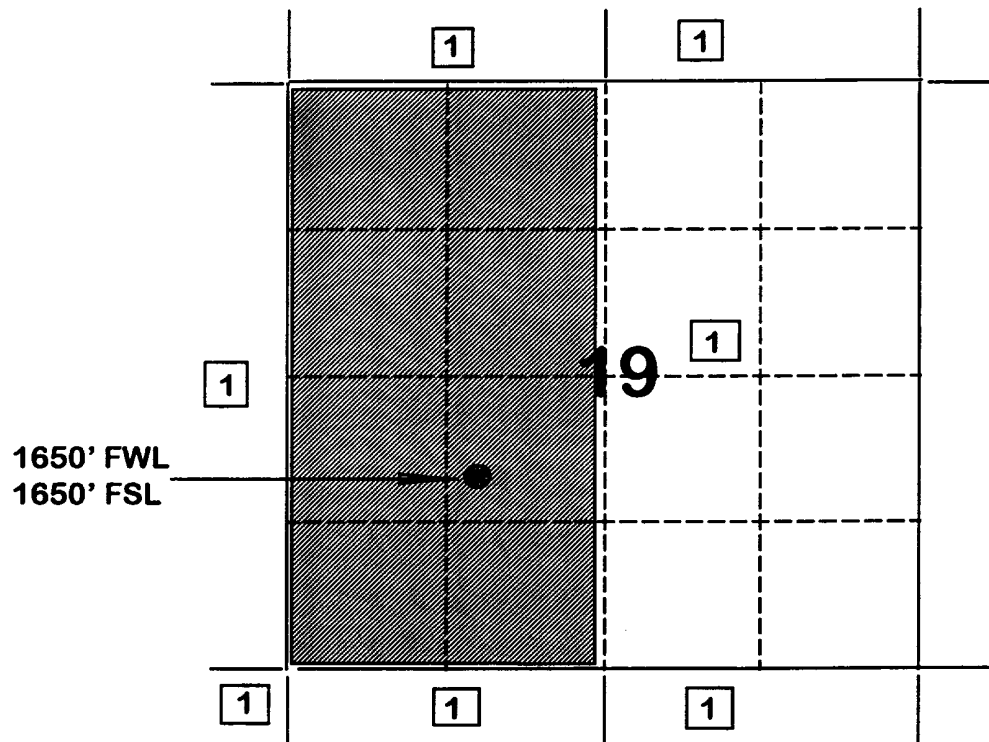
Major = GAS

San Juan 27-5 Unit #48

OFFSET OPERATOR \ OWNER PLAT

Mesaverde (W/2) / Pictured Cliffs (SW/4) Formations Commingle Well

Township 27 North, Range 5 West



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

27-5 #48 Initial PC

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.65
COND. OR MISC. (C/M)	M
%N2	0.31
%CO2	0.31
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	3114
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	100
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	1089
BOTTOMHOLE PRESSURE (PSIA)	1188.2

27-5 #48 Current PC

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.65
COND. OR MISC. (C/M)	M
%N2	0.31
%CO2	0.31
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	3114
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	100
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	153
BOTTOMHOLE PRESSURE (PSIA)	178.2

27-5 # 48 Initial MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.639
COND. OR MISC. (C/M)	M
%N2	0.2
%CO2	1.29
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	4726
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	1084
BOTTOMHOLE PRESSURE (PSIA)	1228.2

27-5 #48 Current MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.639
COND. OR MISC. (C/M)	M
%N2	0.2
%CO2	1.29
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	4726
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	535
BOTTOMHOLE PRESSURE (PSIA)	604.5

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782

O008 CHROMATOGRAPH TEST MAIN SCREEN

18:25:48.3 10/01/9

FUNCTION (A,C,D,I) i ** DATA AT TEST PRESSURE UNLESS NOTED **
 MP NUMBER 72429 SAN JUAN 27-5 UNIT 48 (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 19950209 --- (AT 14.73 PSIG) --
 SAMPLE LINE PRESSURE (PSIG) WET 1130.006 DRY 1150.000
 SAMPLE LINE TEMPERATURE (DEG F) -----
 TEST DATE ----- BTU/CF -----
 TEST PRESSURE (PSIG) 14.730 WET 1130.006 DRY 1150.000
 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

O008 CHROMATOGRAPH GAS SAMPLE DETAIL

18:26:05.8 10/01/9

GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
 MOL % (AT 14.73)
 HYDROGEN ----- MP NUMBER 72429
 HELIUM ----- EFFECTIVE DATE 19950301
 NITROGEN 0.31
 OXYGEN -----
 HYDROGEN SULFIDE ----- -- GASOLINE CONTENT (GPM) --
 CARBON DIOXIDE 0.31 26/70 GASOLINE -----
 METHANE 89.03 100% PROPANE -----
 ETHANE 5.60 1.4980 EXCESS BUTANES -----
 PROPANE 2.73 0.7524 TOTAL -----
 ISO-BUTANE 0.51 0.1668
 N-BUTANE 0.67 0.2113
 ISO-PENTANE 0.24 0.0878 ----- SPECIFIC GRAVITY -----
 N-PENTANE 0.18 0.0652 CALCULATED 0.6500
 HEXANE ----- MEASURED -----
 HEXANE PLUS 0.42 0.1832
 HEPTANE PLUS -----
 TOTALS 100.00 2.9647 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

18:34:45.0 10/01/96

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
 MP NUMBER 72430 SAN JUAN 27-5 UNIT 48 (MV)
 EFFECTIVE DATE 19940901
 REGION CD 42 SAN JUAN
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

 SAMPLE TYPE CODE (GAS, LIQ, BTU) GAS ----- BTU/CF -----
 SAMPLE DATE 19940822 --- (AT 14.73 PSIG) --
 SAMPLE LINE PRESSURE (PSIG) WET 1090.701 DRY 1110.000
 SAMPLE LINE TEMPERATURE (DEG F) -----
 TEST DATE ----- BTU/CF -----
 TEST PRESSURE (PSIG) 14.730 WET 1090.701 DRY 1110.000
 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

18:35:17.7 10/01/96

GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
 MOL % (AT 14.73)
 HYDROGEN ----- MP NUMBER 72430
 HELIUM ----- EFFECTIVE DATE 19940901
 NITROGEN 0.20
 OXYGEN -----
 HYDROGEN SULFIDE -----
 CARBON DIOXIDE 1.29
 METHANE 89.62
 ETHANE 5.67 1.5167
 PROPANE 1.81 0.4988
 ISO-BUTANE 0.38 0.1243
 N-BUTANE 0.45 0.1419
 ISO-PENTANE 0.17 0.0622
 N-PENTANE 0.11 0.0398
 HEXANE -----
 HEXANE PLUS 0.30 0.1309
 HEPTANE PLUS -----
 TOTALS 100.00 2.5146

-- GASOLINE CONTENT (GPM) --
 26/70 GASOLINE -----
 100% PROPANE -----
 EXCESS BUTANES -----
 TOTAL -----

----- SPECIFIC GRAVITY -----
 CALCULATED 0.6390
 MEASURED -----

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 |

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM

Sundry Notices and Reports of Wells 2 AM 7:49

1. Type of Well

GAS

2. Name of Operator

**BURLINGTON
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

1650' FSL, 1650' FWL, Sec. 19, T-27-N, R-5-W, NMPM

K

070 FARMINGTON, NM

5. Lease Number

SF-079392

6. If Indian, All. or

Tribe Name

7. Unit Agreement Name

San Juan 27-5 Unit

8. Well Name & Number

San Juan 27-5 U #48

9. API Well No.

30-039-06974

10. Field and Pool

So Blanco Pict. Cliffs/
Blanco Mesaverde

11. County and State

Rio Arriba Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Type of Action

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other - Pay add

☒ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut off

☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to add pay to the Mesaverde formation of the subject well by setting a cast iron bridge plug above the Point Lookout, perforating and fracture treating the Cliff House/Menefee. The well will be down-hole commingled after the workover and returned to production. Application is being made for down-hole commingling from the New Mexico Oil Conservation Division.

RECEIVED
OCT 18 1996

OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct.

Signed [Signature] Title Regulatory Administrator Date 10/1/96

(This space for Federal or State Office use)

APPROVED BY _____ Title _____

CONDITION OF APPROVAL, if any:

Date **APPROVED**

OCT 15 1996

DISTRICT MANAGER

NMOC

San Juan 27-5 Unit #48 **Unit K, Sec 19, T-27-N, R-5-W**

Location: 1650' FSL, 1650' FWL
 Rio Arriba County, NM

Latitude: 36-33-25
Longitude: 107-24-12

Current Field: Blanco MV / So. Blanco PC
Spud: 2/20/59
Elev GL: 6363'
TD: 5471'

Logs Run: ES, GRN, Ind, ML, TS
Completed: 3/24/59
Elev KB: 6373'
PBTD: 5420'

CASING RECORD:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Depth Set</u>	<u>Cmt Vol</u>	<u>Cmt Top</u>
13-3/4"	10-3/4"	32.75#	SW	171'	72 sks	Surf (Circ)
9-5/8"	7-5/8"	26.4#	J-55	3272'	118 sks	2750' (TS)

LINER RECORD:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Depth Set</u>	<u>Cmt Vol</u>	<u>Cmt Top</u>
6-3/4"	5-1/2"	15.5#	J-55	3271' - 5468'	334 sks	3221' (TS)

TUBING RECORD:

<u>Tubing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Depth Set</u>	<u>Joints</u>	<u>Other</u>	<u>Depth</u>
2-3/8"	4.7#	J-55	5391'	172		
1-1/4"		EUE	3161'	102		
					Baker EGJ Pkr	3286'

FORMATION TOPS:

Ojo Alamo	2503'	Pictured Cliffs	3076'	Pt Lookout	5255'
Kirtland	2612'	Cliffhouse	4721'	Gallup	—
Fruitland	2813'	Menefee	4880'	Dakota	—

Completions:

Mesaverde - PL
 Perfs: 5254-64, 5270-88, 5334-44, 5364-74, 5392-5402
 Frac: 60,660 gal water & 65,000# sand + balls.
 SIWHP: 1071 psi AOF: 3211 MCFD

Pictured Cliffs

Perfs: 3114-24, 3134-52
 Frac: 34,765 gal water & 35,000# sand + balls.
 SIWHP: 1088 psi AOF: 1741 MCFD

Cementing Information

10-3/4" casing cemented w/ 72 sks regular cement, 2% gel, 36 cu ft Strat-Crete "6".
 7-5/8" casing cemented w/ 34 sks regular cement, 34 sks Pozmix, 2% gel, 13 cu ft Strata-Crete "6" followed by 50 sks neat.
 5-1/2" casing cemented w/ 142 sks regular cement, 142 sks Pozmix, 1/4 cu ft Gilsonite /sk, 2% gel followed by 50 sks neat.

Workover History:

LLL:rjp 9/20/96

SAN JUAN 27-5 UNIT #48

Unit K, Section 19, T-27-N, R-5-W
Lat. 36-33-25, Long. 107-24-12

CURRENT WELLBORE SCHEMATIC

