

BURLINGTON RESOURCES

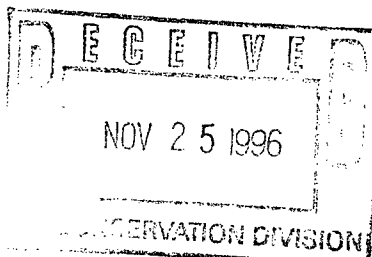
SAN JUAN DIVISION

DHC 12/16/96
Release Dab,
11/2/96 No other

1414

November 22, 1996

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



Re: San Juan 27-5 Unit #49
1090'FNL, 800'FEL Section 18, T-27-N, R-5-W, Rio Arriba County, NM
API #30-039-07089

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 Order #R-10694 issued November 12, 1996.

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

49

A-18-27N-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. 30-039-07089 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		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3312-3342'		5005-5608'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	(Current) a. 277 psi	a.	a. 489 psi
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1184 psi	b.	b. 1279 psi
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	BTU 1149		BTU 1224
7. Producing or Shut-in?	producing		Shut-in
Production Marginal? (yes or no)	yes		yes
* If Shut-in and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: 8-21-96 Rates: 76 MCF/D
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: 9-29-96 Rates: 23 MCF/D	Date: Rates:	Date: Rates:
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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10694

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

Well Location and Acreage Dedication Plat

Date MAY 10, 1960

Section A.

Operator EL PASO NATURAL GAS COMPANY Lease SAN JUAN 27-5 UNIT SF 079391
 Well No. 19(PM) Unit Letter A Section 18 Township 27-N Range 5-W NMPM
 Located 1090 Feet From NORTH Line, 800 Feet From EAST Line
 County RIO ARriba G. L. Elevation 6551 Dedicated Acreage 160 & 320 Acres
 Name of Producing Formation PICTURED CLIFFS & MESA VERDE Pool SO. BLANCO FC EXT. & BLANCO MV

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?

Yes _____ No X2. 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:

Owner

Land Description

Section B.

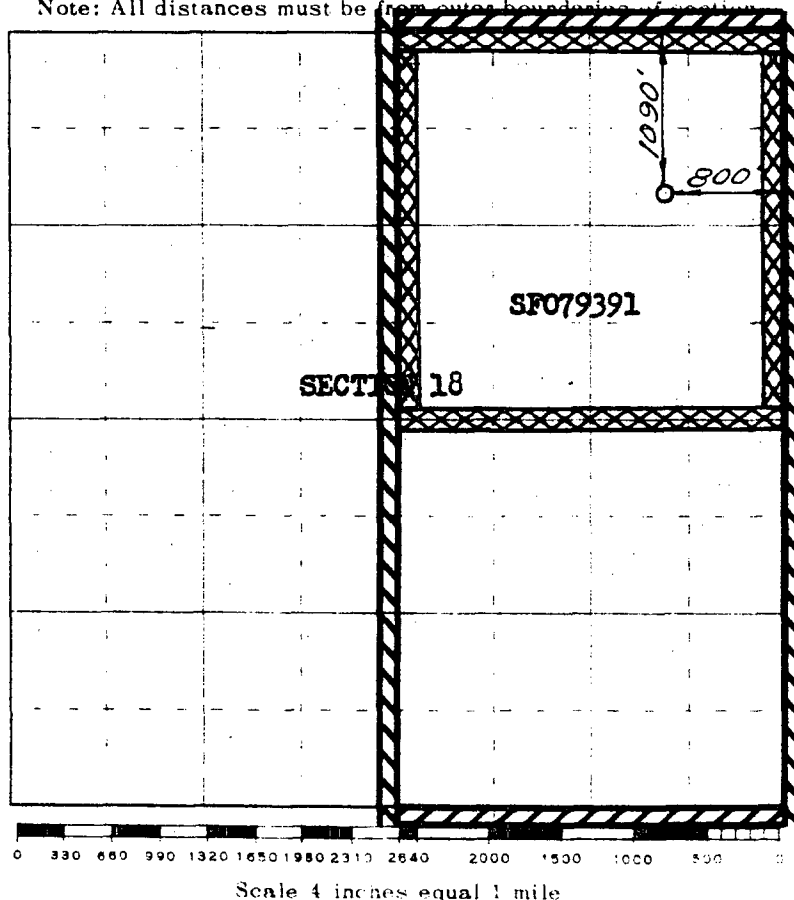
Note: All distances must be from outer boundaries of section.

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

Scale 4 inches equal 1 mile

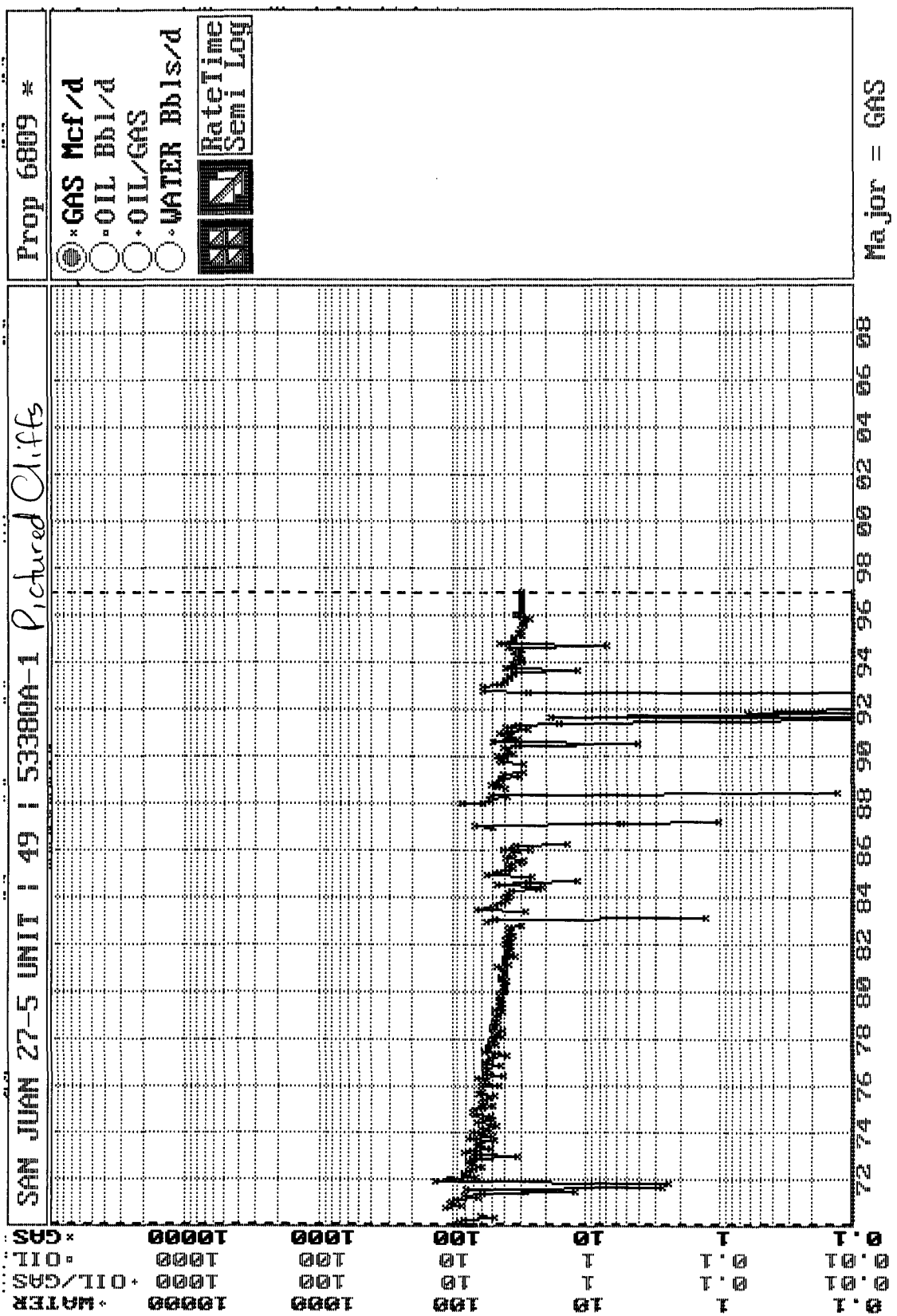
This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

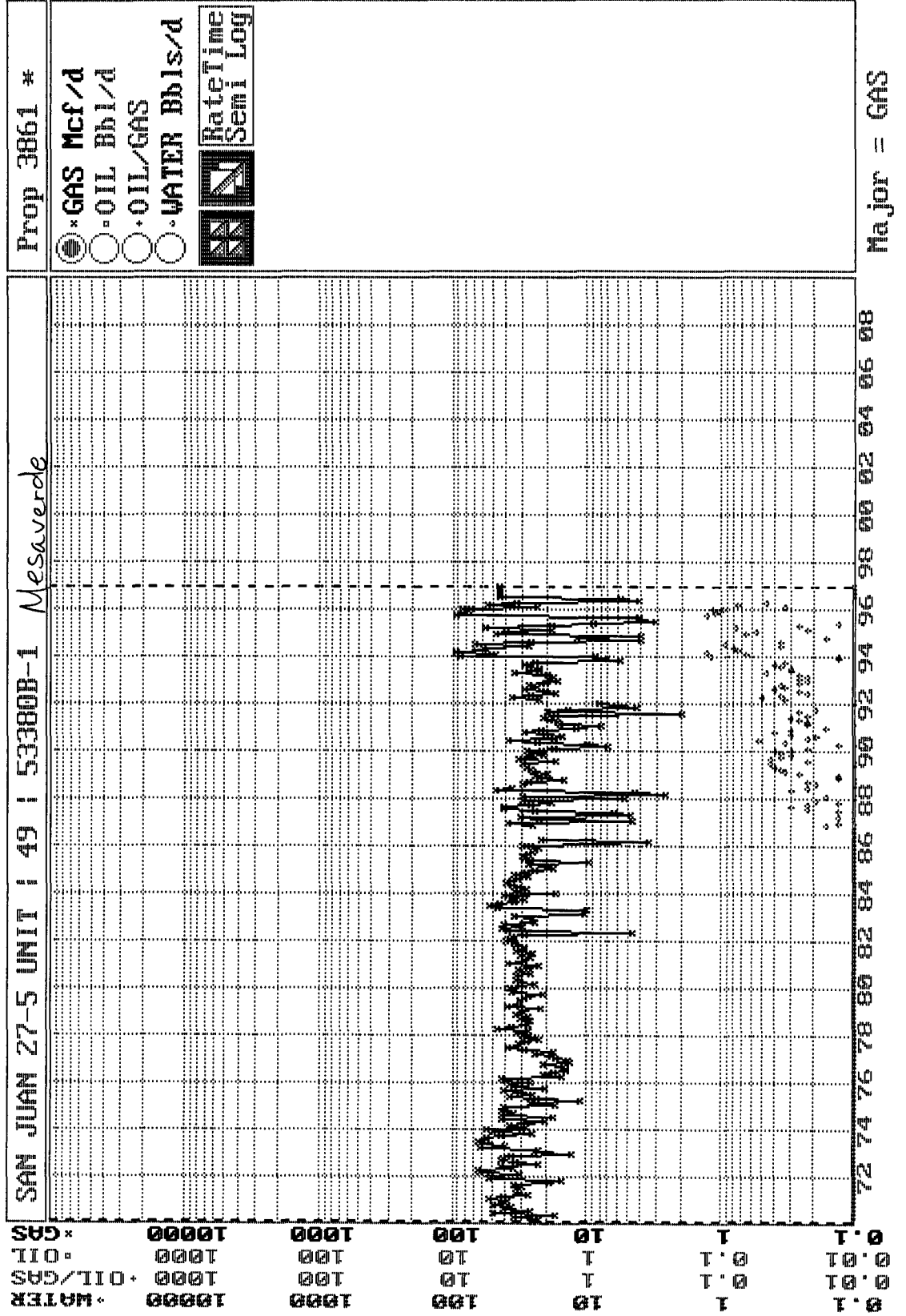
Date Surveyed FEBRUARY 15, 1960

David R. Tiller
 Registered Professional Engineer and/or Land Surveyor

Farmington, New Mexico



Major = GAS

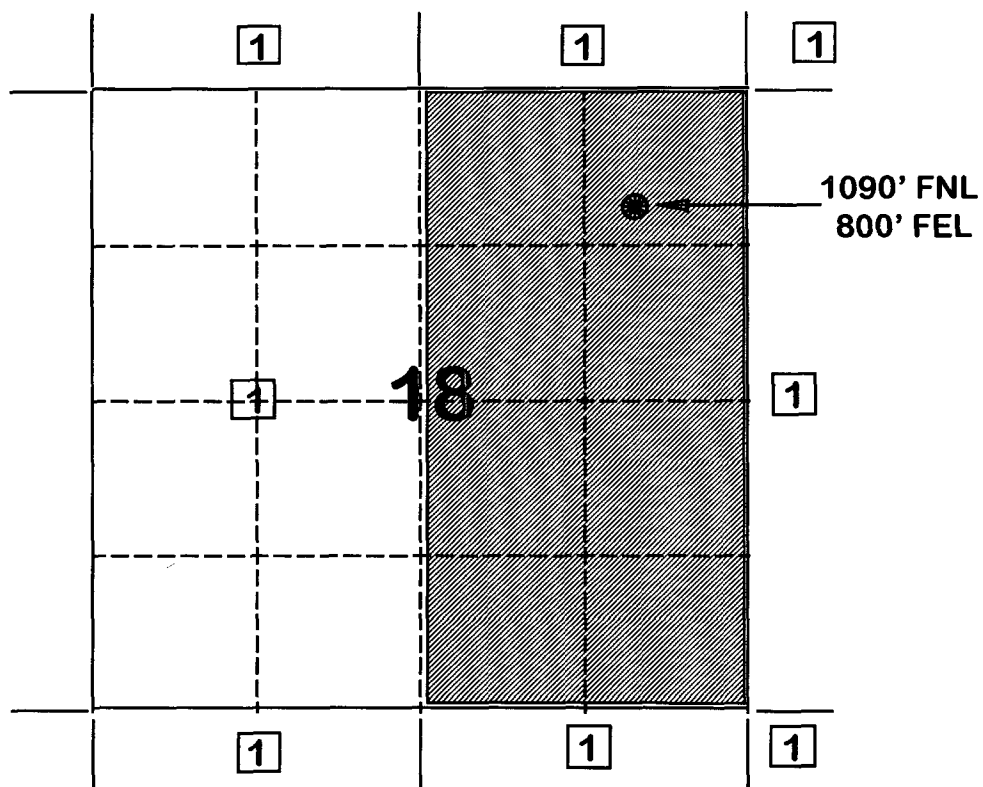


BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 27-5 Unit #49
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 # 49 Initial Pc

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	0.34
%CO2	0.43
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	3312
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	100
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	1082
BOTTOMHOLE PRESSURE (PSIA)	1184.3

27-5 #49 Current PC

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	0.34
%CO2	0.43
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	3312
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	100
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	248
BOTTOMHOLE PRESSURE (PSIA)	276.7

27-5 #49 Initial MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.702
COND. OR MISC. (C/M)	M
%N2	0.3
%CO2	0.79
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	5005
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	1098
BOTTOMHOLE PRESSURE (PSIA)	1279.3

27-5 #49 Current MV

BHP.XLS

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.702
COND. OR MISC. (C/M)	M
%N2	0.3
%CO2	0.79
%H2S	0
DIAMETER (IN)	2.441
DEPTH (FT)	5005
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120
FLOWRATE (MCFPD)	1000
SURFACE PRESSURE (PSIA)	422
BOTTOMHOLE PRESSURE (PSIA)	489.4

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED)

OPR008M1 0782

0008 CHROMATOGRAPH TEST MAIN SCREEN

18:26:29.6 10/01/96

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
MP NUMBER 72842 SAN JUAN 27-5 UNIT 49 (PC)
EFFECTIVE DATE 19950801
REGION CD 42 SAN JUAN
MP TYPE CODE 10 GAS METER - WELLHEAD SALES

SAMPLE TYPE CODE (GAS,LIQ,BTU) GAS ----- BTU/CF -----
SAMPLE DATE 19950801 --- (AT 14.73 PSIG) --
SAMPLE LINE PRESSURE (PSIG) WET 1109.371 DRY 1129.000
SAMPLE LINE TEMPERATURE (DEG F) -----
TEST DATE ----- BTU/CF -----
TEST PRESSURE (PSIG) 14.730 WET 1109.371 DRY 1129.000
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

18:27:05.1 10/01/96

GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
MOL % (AT 14.73)
HYDROGEN ----- MP NUMBER 72842
HELIUM ----- EFFECTIVE DATE 19950801
NITROGEN 0.34
OXYGEN -----
HYDROGEN SULFIDE ----- -- GASOLINE CONTENT (GPM) --
CARBON DIOXIDE 0.43 26/70 GASOLINE -----
METHANE 89.86 100% PROPANE -----
ETHANE 5.22 1.3964 EXCESS BUTANES -----
PROPANE 2.57 0.7083 TOTAL -----
ISO-BUTANE 0.46 0.1505
N-BUTANE 0.57 0.1797
ISO-PENTANE 0.18 0.0659
N-PENTANE 0.12 0.0435
HEXANE -----
HEXANE PLUS 0.25 0.1091
HEPTANE PLUS -----
TOTALS 100.00 2.6534

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

18:35:33.7 10/01/96

FUNCTION (A,C,D,I) I ** DATA AT TEST PRESSURE UNLESS NOTED **
 MP NUMBER 72843 SAN JUAN 27-5 UNIT 49 (MV)
 EFFECTIVE DATE 19930901
 REGION CD 42 SAN JUAN
 MP TYPE CODE 10 GAS METER - WELLHEAD SALES

 SAMPLE TYPE CODE (GAS, LIQ, BTU) GAS ----- BTU/CF -----
 SAMPLE DATE 19930803 --- (AT 14.73 PSIG) --
 SAMPLE LINE PRESSURE (PSIG) WET 1196.823 DRY 1218.000
 SAMPLE LINE TEMPERATURE (DEG F) -----
 TEST DATE ----- BTU/CF -----
 TEST PRESSURE (PSIG) 14.730 WET 1196.823 DRY 1218.000
 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

18:36:14.2 10/01/96

GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
 MOL % (AT 14.73)
 HYDROGEN ----- MP NUMBER 72843
 HELIUM ----- EFFECTIVE DATE 19930901
 NITROGEN 0.30
 OXYGEN -----
 HYDROGEN SULFIDE ----- -- GASOLINE CONTENT (GPM) --
 CARBON DIOXIDE 0.79 26/70 GASOLINE -----
 METHANE 82.43 100% PROPANE -----
 ETHANE 9.40 2.5145 EXCESS BUTANES -----
 PROPANE 4.20 1.1575 TOTAL -----
 ISO-BUTANE 0.72 0.2355
 N-BUTANE 1.05 0.3311
 ISO-PENTANE 0.39 0.1427
 N-PENTANE 0.28 0.1014
 HEXANE -----
 HEXANE PLUS 0.44 0.1920
 HEPTANE PLUS -----
 TOTALS 100.00 4.6747

 ----- SPECIFIC GRAVITY -----
 CALCULATED 0.7020
 MEASURED -----
 SULPHUR GRAINS / 100 CU FT -----

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

The map displays the following sections and details:

- Section 12:** S.J. 28-6 Unit. Contains mineral rights (circles with a cross) for 81 P, 80 P, and 193. NM 4217 .22.
- Section 7:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 46 P, 69 M, and 174. NM 2106, 22.
- Section 8:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 63 P, 70 M, and 176. NM 2106, 22.
- Section 13:** S.J. 28-6 Unit. Contains mineral rights (circles with a cross) for 68 P, 82 P, and 194. NM 4219 .22, NM 9689.22.
- Section 17:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 26, 3, and 179. NM 2101, 22.
- Section 18:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 47 P, 49A P, and 186. NM 2106, 22.
- Section 19:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 48 P, 50 P, and 198. NM 2101 (1/2), 22.
- Section 20:** S.J. 27-5 Un. Contains mineral rights (circles with a cross) for 37 P, 139M M, and 58. NM 2101, 22.
- Section 24:** S.J. 28-6 Unit. Contains mineral rights (circles with a cross) for 69A, 86 P, and 199. NM 4219 .22, NM 9689.22.

Additional symbols include stars (e.g., 193, 194, 195, 198, 199) and squares with a cross (e.g., 69 M, 70 M, 139M M). The map also shows a 'Fee' area and a 'NWPC' (Northwest Petroleum Company) area.



FRUITLAND SAND WELL



 MESAVERDE WELL



FRUITLAND COAL WELL

 DAKOTA WELL

☀ PICTURED CLIFFS WELL


GALLUP WELL