

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 2040 South Pacheco, Santa Fe, NM 87505



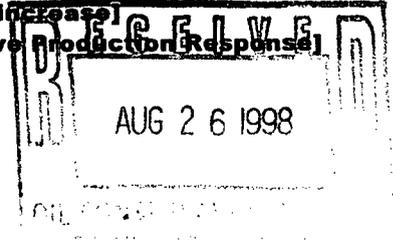
2104

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]



[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Directional Drilling  
 NSL  NSP  DD  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

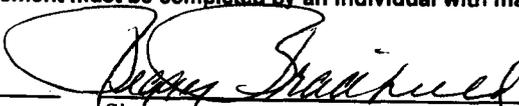
[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Certification

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. *I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.*

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name \_\_\_\_\_ Signature  Title \_\_\_\_\_ Date \_\_\_\_\_

**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 **San Juan 27-5 Unit** Address **138E O 19-27N-05W 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. 30-039-23758 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	Wildcat Cereza Canyon Gallup - 96766		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	6750' - 7151'		7560' - 7748'
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. 1570	a.	a. 864
	(Original) b. 1570	b.	b. 2741
6. Oil Gravity (°API) or Gas BTU Content	BTU 1224		BTU 1219
7. Producing or Shut-In?	producing		Shut-in
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	Date: n/a Rates:	Date: Rates:	Date: n/a Rates: 3/110/0
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: n/a Rates: 160 MCF/D	Date: Rates:	Date: n/a Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

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). 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 Jennifer Dobson TITLE Production Engineer DATE 08-17-98

TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

00241-1980

88211-0719

Aztec, NM 87410

Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

57 DEC -2 PM 1:39

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>10-039-23758</b>		Pool Code <b>96766/71599</b>	Pool Name <b>WC:Cereza Canyon Gallup/Basin Dakota</b>
Property Code <b>7454</b>	Property Name <b>SAN JUAN 27-5 UNIT</b>		Well Number <b>138E</b>
GRID No. <b>14538</b>	Operator Name <b>BURLINGTON RESOURCES OIL &amp; GAS COMPANY</b>		Elevation <b>6603'</b>

<sup>10</sup> Surface Location

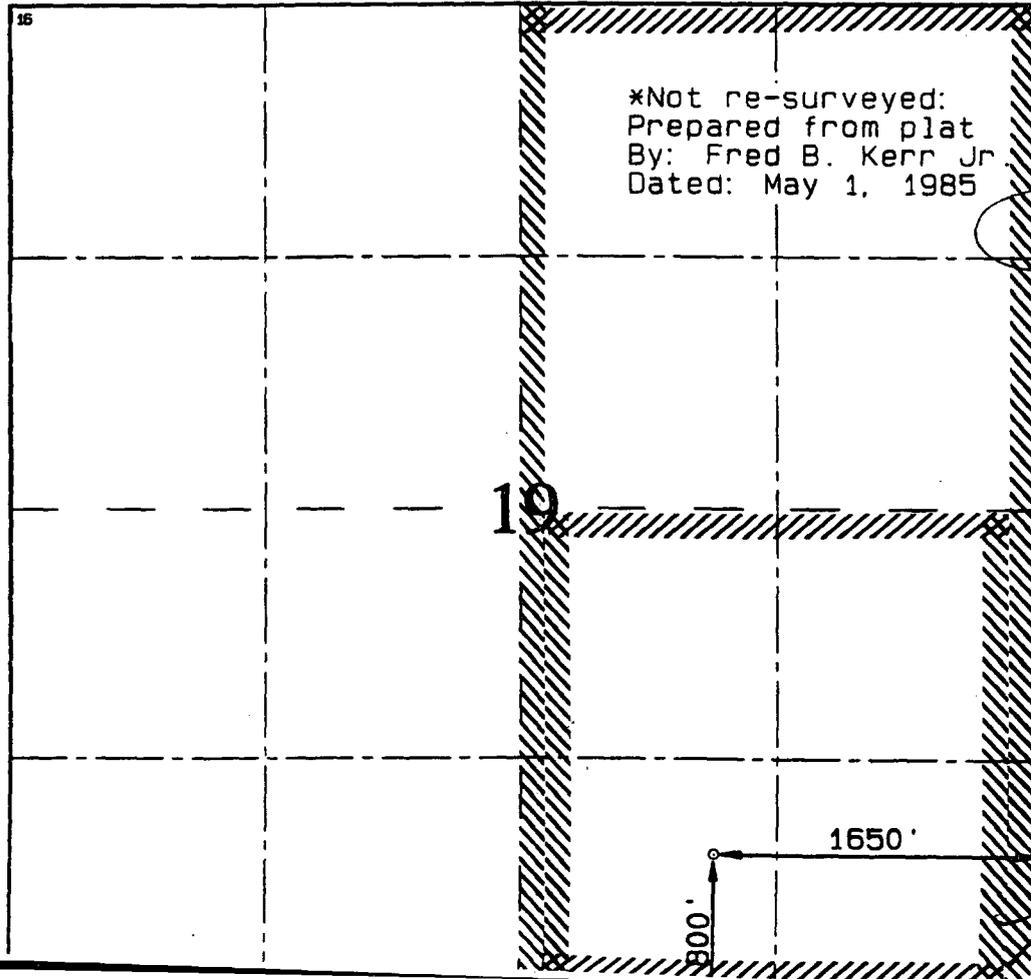
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	27N	5W		800	South	1650	East	RIO ARRIBA

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>Gal - 160 DK E/320</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



\*Not re-surveyed:  
Prepared from plat  
By: Fred B. Kerr Jr  
Dated: May 1, 1985

<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Peggy Bradfield*  
Signature

Peggy Bradfield  
Printed Name  
Regulatory Administrator  
Title

12-2-97  
Date

<sup>18</sup> 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 belief.

NOVEMBER 20, 1997  
Date of Survey

*C. Edwards*  
Signature and Seal of Professional Surveyor  
**NEALE C. EDWARDS**  
NEW MEXICO  
6857  
6857  
Certification

0.1  
0.01  
0.001

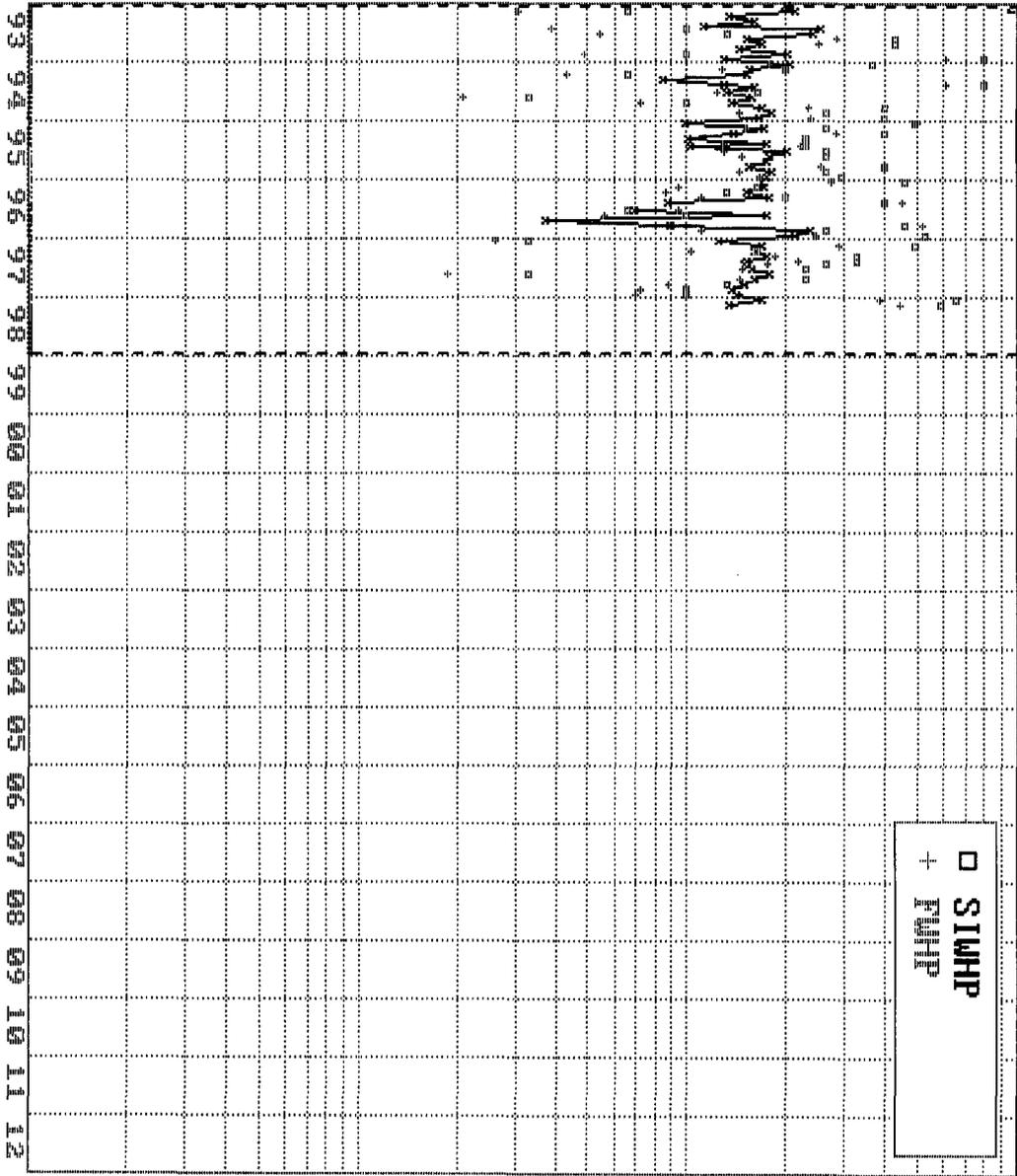
1  
0.1  
0.01  
10

10  
1  
0.1  
100

• WATER  
• OIL/GAS  
• OIL  
• GAS

SAN JUAN 27-5 UNIT | 130E | 54075A-1

R



□ SIWHP  
+ FWHP

PROP 1362 \*

- GAS MCF/D
- OIL BBL/D
- OIL/GAS
- WATER BBL/D
- RateTime  
Semi Log

Major = GAS

+ WATER  
 + OIL/GAS  
 \* OIL  
 \* GAS

10  
 1  
 100  
 100

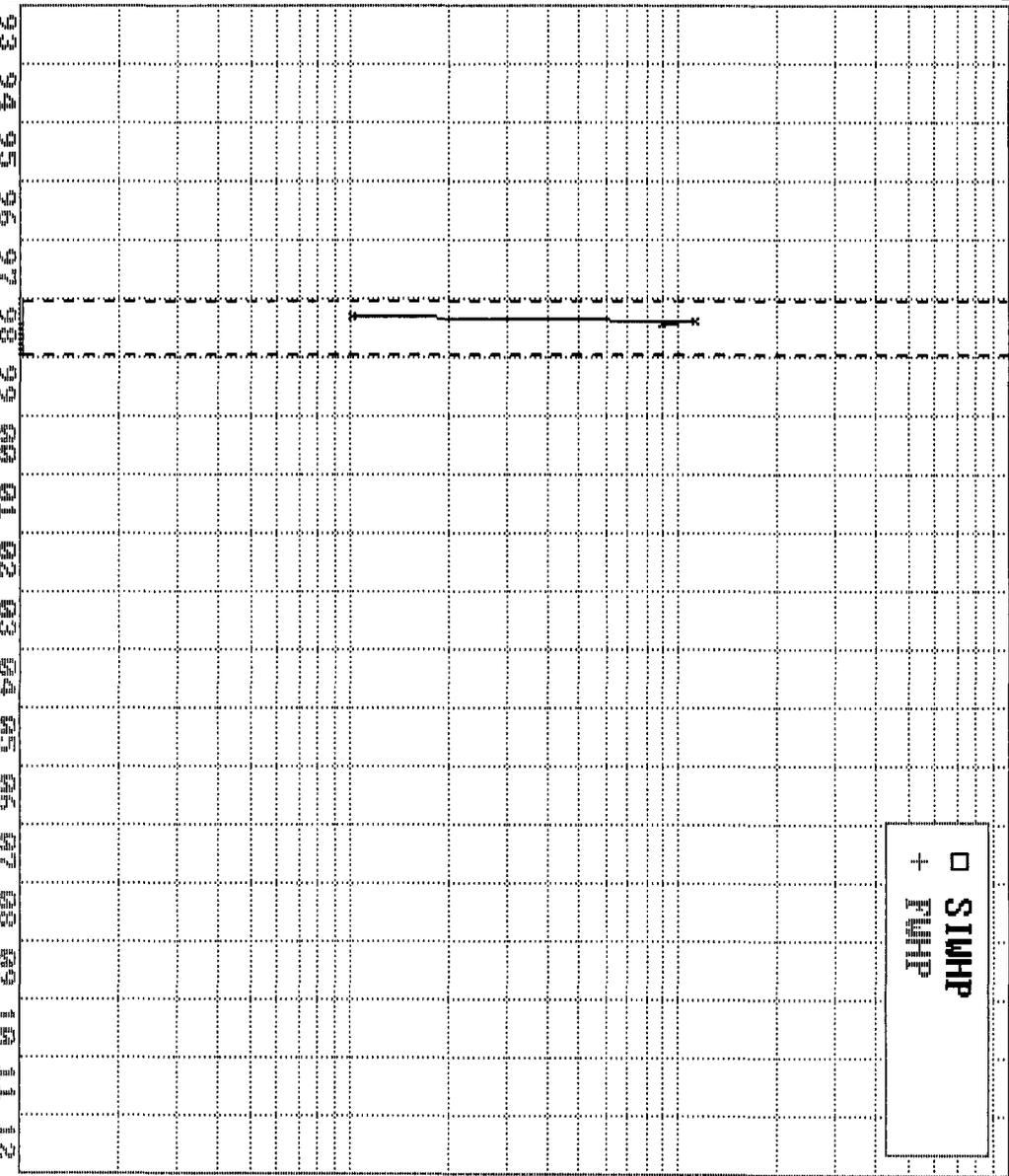
1  
 0.1  
 10  
 10

0.1  
 0.01  
 1  
 1

SAN JUAN 27-5 UNIT | 138E | 54075B-1

61

□ SIWHP  
 + FWHP



Prop 46

● \* GAS MCF/d  
 ○ - OIL Bbl/d  
 ○ - OIL/GAS  
 ○ - WATER Bbls/d

RateTime  
 Semi Log

Major = GAS

**SJ 27-5 #138E**

**Bottom Hole Pressures**

**Cullender and Smith Method**

Version 1.0 3/13/94

**Dakota**

**DK-Current**

GAS GRAVITY	<u>0.715</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>1.94</u>
%CO2	<u>0.54</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2</u>
DEPTH (FT)	<u>7767</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>145</u>
FLOWRATE (MCFPD)	<u>110</u>
SURFACE PRESSURE (PSIA)	<u>699</u>
BOTTOMHOLE PRESSURE (PSIA)	<input type="text" value="863.8"/>

**DK-Original**

GAS GRAVITY	<u>0.715</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>1.94</u>
%CO2	<u>0.54</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2</u>
DEPTH (FT)	<u>7767</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>145</u>
FLOWRATE (MCFPD)	<u>110</u>
SURFACE PRESSURE (PSIA)	<u>2145</u>
BOTTOMHOLE PRESSURE (PSIA)	<input type="text" value="2741.4"/>

Page No.: 1

Print Time: Tue Aug 11 11:28:16 1998

Property ID: 1362

Property Name: SAN JUAN 27-5 UNIT | 138E | 54075A-1

Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

--DATE--	---CUM GAS--	M FWHP-	M FBHP-	M SIWHP	M SIBHP
.....	.....Mcf.....	.....Psi.....	.....Psi.....	.....Psi.....	.....Psi.....
08/23/85	0			2145.0	<i>orig</i>
05/05/86	49213	328.0		1284.0	0.0
08/31/87	199243	291.0		847.0	0.0
06/28/88	265301	302.0		1001.0	0.0
07/31/90	416587	278.0		1096.0	0.0
07/28/92	554344	342.0		699.0	<i>curr.</i> 0.0

08/11/98

LAND WELL REPORT  
COMPANY OWNERSHIP

APPROVED 03/12/98

LWR210NL  
<WELLSTAT>

INQUIRY

WELL: 54075B SAN JUAN 27-5 UNI 138E

=====

OWNER	PROD	INTEREST %	I-TYPE	TRUST	EVENT	AUTH	INIT	REVISED
21 BROG	ALL	1.976751	ORI		CUR	FW	LKD	03/12/98
21 BROG	ALL	10.312500	NPI		CUR	FW	LKD	03/12/98
21 BROG	ALL	64.164834	NWI		CUR	FW	LKD	03/12/98
21 BROG	ALL	90.275556	GWI		CUR	FW	LKD	03/12/98
21 BROG	ALL	50.414833	NWI		APO1	FW	LKD	03/12/98
21 BROG	ALL	73.608889	GWI		APO1	FW	LKD	03/12/98

TOTAL COMPANY NET/GROSS REVENUE INTEREST:      NET: OIL 76.454085 GAS 76.454085  
 GROSS: OIL 90.275556 GAS 90.275556

\*\* CONTAINS OWNERSHIP REMARKS \*\*

BLOCK POSTING:

=====

PF17=PRIOR PF18=REASON PF20=TOP PF21=RMKS PF11=BACK PF12=MENU PF24=HELP

08/11/98

LAND WELL REPORT  
COMPANY OWNERSHIP

APPROVED 03/12/98

LWR210NL  
<WELLSTAT>

INQUIRY

WELL: 54075A SAN JUAN 27-5 UNI 138E

=====

OWNER	PROD	INTEREST %	I-TYPE	TRUST	EVENT	AUTH	INIT	REVISED
21 BROG	OIL	0.024120	RI		CUR	DOU		
21 BROG	OIL	0.040185	UMI		CUR	DOU		
21 BROG	GAS	2.102238	NWI		CUR	DOU		
21 BROG	GAS	2.754308	GWI		CUR	DOU		
21 BROG	GAS	0.024120	RI		CUR	DOU		
21 BROG	GAS	0.040185	UMI		CUR	DOU		
21 BROG	ALL	36.366404	NWI		CUR	DOU	WMB	07/02/98
21 BROG	ALL	52.408291	GWI		CUR	DOU	WMB	07/02/98
21 BROG	ALL	0.004126	RI		CUR	DOU		
21 BROG	ALL	0.914594	ORI		CUR	DOU		

TOTAL COMPANY NET/GROSS REVENUE INTEREST:      NET: OIL 44.088527 GAS 46.190765  
 GROSS: OIL 52.448476 GAS 55.202784

\*\* NO OWNERSHIP REMARKS \*\*

BLOCK POSTING:

=====

PF17=PRIOR PF18=REASON PF20=TOP PF21=RMKS PF11=BACK PF12=MENU PF24=HELP

FDG055M4 1153

WELL PRODUCTION 8/8'S VOLUME

07/22/98 17:19:55

DP NO: 54075B

*GL*

DATE: 980709 (YYMMDD FORMAT)

SAN JUAN 27-5 UNIT

138E

SCROLL FORWARD BY DATE: \_

S

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-	
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD MCFM)	(BWPD BWPM)
_	07/09/98	24.0	0.00	0.00	129 1289 0.00 0.00	
_	07/08/98	24.0	0.00	0.00	129 1160 0.00 0.00	
_	07/07/98	24.0	0.00	0.00	129 1031 0.00 0.00	
_	07/06/98	24.0	0.00	0.00	129 902 0.00 0.00	
_	07/05/98	24.0	0.00	0.00	129 773 0.00 0.00	
_	07/04/98	24.0	0.00	0.00	161 644 0.00 0.00	
_	07/03/98	24.0	0.00	0.00	161 483 0.00 0.00	
_	07/02/98	24.0	0.00	0.00	161 322 0.00 0.00	
_	07/01/98	24.0	0.00	0.00	161 161 0.00 0.00	
_	06/30/98	24.0	0.00	0.00	161 4581 0.00 0.00	
_	06/29/98	24.0	0.00	0.00	161 4420 0.00 0.00	

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI      PF10=BROWSE MENU      PF11=INQ/UPDATE MENU  
 PF12=MAIN MENU      ENTER=BACKWARDS      PF24=HELP

DP NO: 54075B

DATE: 980628 (YYMMDD FORMAT)

SAN JUAN 27-5 UNIT

138E

SCROLL FORWARD BY DATE: \_

S

E L	DATE	HOURS	-OIL PRODN-		-GAS PRODN-		-WATER PRODN-	
	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD	BWPM)
—	06/28/98	24.0	0.00	0.00	161	4259	0.00	0.00
—	06/27/98	24.0	0.00	0.00	161	4098	0.00	0.00
—	06/26/98	24.0	0.00	0.00	161	3937	0.00	0.00
—	06/25/98	24.0	0.00	0.00	161	3776	0.00	0.00
—	06/24/98	24.0	0.00	0.00	161	3615	0.00	0.00
—	06/23/98	24.0	0.00	0.00	161	3454	0.00	0.00
—	06/22/98	24.0	0.00	0.00	161	3293	0.00	0.00
—	06/21/98	24.0	0.00	0.00	161	3132	0.00	0.00
—	06/20/98	24.0	0.00	0.00	161	2971	0.00	0.00
—	06/19/98	24.0	0.00	0.00	161	2810	0.00	0.00
—	06/18/98	24.0	0.00	0.00	161	2649	0.00	0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF6=NRI      PF10=BROWSE MENU      PF11=INQ/UPDATE MENU  
 PF12=MAIN MENU      ENTER=BACKWARDS      PF24=HELP



	MOL %	GPM (AT 14.73)
HYDROGEN	_____	
HELIUM	_____	
NITROGEN	__1.94	
OXYGEN	_____	
HYDROGEN SULFIDE	_____	
CARBON DIOXIDE	__0.54	
METHANE	__79.55	
ETHANE	__10.89	2.9131
PROPANE	__4.07	1.1217
ISO-BUTANE	__0.52	0.1701
N-BUTANE	__1.20	0.3784
ISO-PENTANE	__0.36	0.1317
N-PENTANE	__0.41	0.1485
HEXANE	_____	
HEXANE PLUS	__0.52	0.2269
HEPTANE PLUS	_____	
TOTALS	100.00	5.0904

\*\* DATA AT 14.730 PSIG UNLESS NOTED \*\*

MP NUMBER 85892

EFFECTIVE DATE 19980601

-- GASOLINE CONTENT (GPM) --

26/70 GASOLINE \_\_\_\_\_

100% PROPANE \_\_\_\_\_

EXCESS BUTANES \_\_\_\_\_

TOTAL

----- SPECIFIC GRAVITY -----

CALCULATED \_0.7150

MEASURED \_\_\_\_\_

SULPHUR GRAINS / 100 CU FT \_\_\_\_\_

03=MAIN SCREEN

24=HELP

PA1=TERMINATE

DATE: July 27, 1998

NAME: SAN JUAN 27-5 UNIT 138E

FORM: DAKOTA

LOCATION

UNIT: O

SEC: 19

TWN: 27N

RNG: 5W

<p>7/73 * San Juan 28-6 Unit 183 235/2873 (97) 0/6 [131]</p> <p>9/73 * San Juan 28-6 Unit 179 82/1339 (97) 0/0</p>	<p>11/85 * San Juan 27-5 Unit 163M 93/846 (97) 1/1</p> <p>4/72 * San Juan 27-5 Unit 137 73/1271 (97) 0/0 [181]</p> <p>11/73 * San Juan 27-5 Unit 163 107/1395 (97) 0/1</p> <p>12/85 * San Juan 27-5 Unit 137E 181/953 (97) 0/1</p>	<p>8/69 * San Juan 27-5 Unit 114 180/2306 (97) 1/9</p> <p>[17]</p> <p>8/71 * San Juan 27-5 Unit 123 133/1504 (97) 0/3</p>
<p>4/72 * San Juan 28-6 Unit 171 135/1448 (97) [241] 0/0</p> <p>11/69 * San Juan 28-6 Unit 146 103/1915 (97) 0/5</p>	<p>9/71 * San Juan 27-5 Unit 133 212/3013 (97) 0/4</p> <p>3/86 * San Juan 27-5 Unit 138E 155/866 (97) 0/1</p> <p>4/72 * San Juan 27-5 Unit 138 78/1960 (97) 0/3 [191]</p> <p>9/73 * San Juan 27-5 Unit 139 180/750 (97) 0/2</p> <p>4/72 * San Juan 27-5 Unit 139 152/1582 (97) 0/5</p>	<p>8/71 * San Juan 27-5 Unit 131 132/1387 (97) 0/4</p> <p>4/86 * San Juan 27-5 Unit 164 111/1216 (97) 0/3</p> <p>4/86 * San Juan 27-5 Unit 165M 135/719 (97) 0/2</p> <p>4/72 * San Juan 27-5 Unit 140 170/1534 (97) 0/5</p>
<p>11/62 * San Juan 28-6 Unit 110 104/1986 (97) 0/6</p> <p>[25]</p> <p>8/71 * San Juan 28-6 Unit 157 166/4001 (97) 0/5</p> <p>1/95 * San Juan 28-6 Unit 157M 261/323 (97) 1/0</p>	<p>4/72 * San Juan 27-5 Unit 141 146/2742 (97) 0/4</p> <p>[30]</p>	<p>9/73 * San Juan 27-5 Unit 165 172/1698 (97) 1/8</p> <p>[29]</p>

T  
27  
N

LEGEND  
COMPLETION DATE

WELL NAME  
MCFD-CUM(MMF)  
BOPD-CUM (MBO)

R-6-W

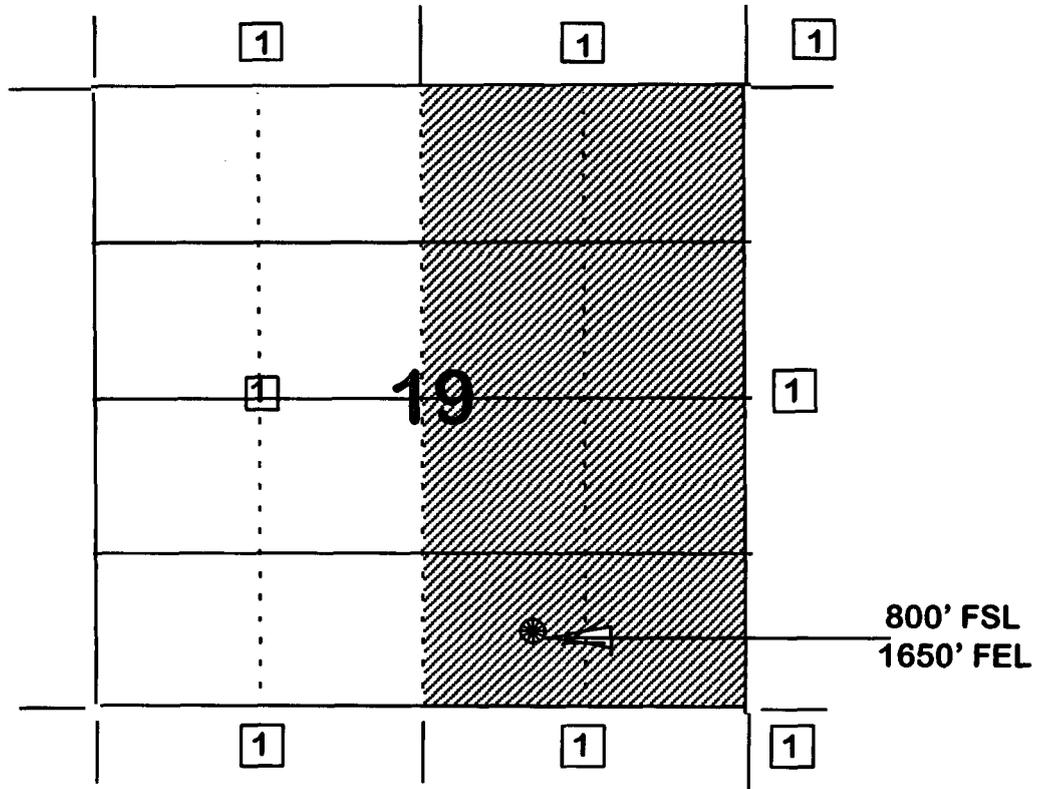
R-5-W

**BURLINGTON RESOURCES OIL AND GAS COMPANY**

**OFFSET OPERATOR \ OWNER PLAT  
San Juan 27-5 Unit #138E**

**Gallup (SE/4)/Dakota (E/2) Formations Commingle Well**

Township 27 North, Range 5 West



1) Burlington Resources

DATE: July 27, 1998

NAME: SAN JUAN 27-5 UNIT 138E

FORM: GALLUP

LOCATION

UNIT: O  
SEC: 19  
TWN: 27N  
RNG: 5W

T  
27  
N

[13]	[18]	[17]
[24]	[19] 4/98 * San Juan 27-5 Unit 138E 110/3 (ee) 0/0	[20]
[25]	[30]	[29]

R-6-W

R-5-W

LEGEND

COMPLETION DATE

WELL NAME  
MCFD-CUM(MMF)  
BOPD-CUM (MBO)

Company: BURLINGTON RESOURCES  
 Well: SAN JUAN 27-5 NO. 138-E  
 Field:  
 Engineer:  
 Gauge Type:  
 Gauge Range:  
 Gauge Depth: 7050 ft  
 Serial No.:

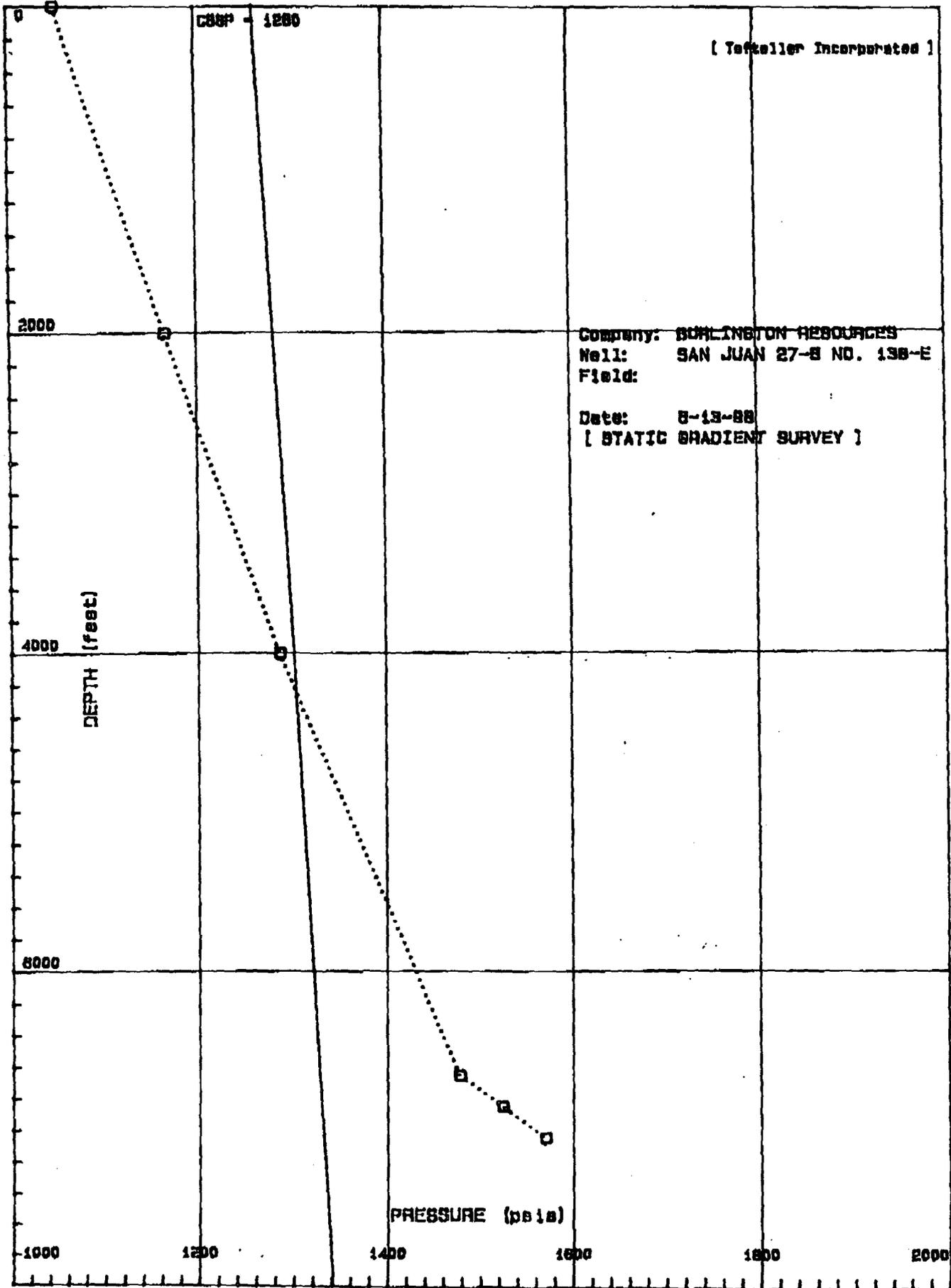
County: RIO ARRIBA  
 State: NEW MEXICO  
 Date: 5-13-98  
 Well Type:  
 Test Type: STATIC GRADIENTS  
 Status: SHUT IN 5 DAYS  
 File Name: 33748

Tubing: 1.5 TO 7111  
 Tubing: TO  
 Casing: TO Oil Level  
 Perfs.: H2O Level

Shut-in BHP 1570 @ 7050 ft Shut-in BHT 0 F @ 0 ft  
 Shut-in WHP 1050 Shut-in WHT 0 F  
 Casing CSGP 1260

[ Tefteller Incorporated ]

#	MD	TVD	PRESSURE	PSI/ft
1	0	0	1050.00	
2	2000	2000	1166.00	0.058
3	4000	4000	1286.00	0.060
4	6650	6650	1478.00	0.072
5	6850	6850	1524.00	0.230
6	7050	7050	1570.00	0.230



Williams Field Services  
Salt Lake City, Utah  
CERTIFICATE OF ANALYSIS  
For production month 05/98

06/10/98 14:47:11

PAGE 1

Station ID: 85892  
Station Name: SJ 27-5 UNIT #138E COMMINGLE  
Analysis Source: 85892

Lab Identifier: K001  
Effective Date: 05/01/98

Operator: 005080  
Analysis ID: 238298  
Analyzed Date: 05/05/98

Sample On Date: 05/04/98  
Sample Off Date: 05/04/98  
Sample Type: S

Component	Mol %	GPM
Helium	0.0000	
CO	0.0000	
CO2	0.5380	
N2	2.9250	
Methane (C1)	78.1969	
Ethane (C2)	10.7771	2.882
Propane (C3)	4.1440	1.142
I-butane (IC4)	0.5500	0.180
N-butane (NC4)	1.2820	0.404
I-pentane (IC5)	0.4020	0.147
N-pentane (NC5)	0.4010	0.145
Hexanes (C6)	0.7840	0.342
Heptanes (C7)		
Octanes (C8)		
Nonanes (C9)		
Decanes (C10)		
TOTAL	100.0000	5.242

## Calculation Parameters:

Specific Gravity @ 60 deg.F (AIR-1)  
Ideal Gravity: 0.7266  
Sample Gravity: 0.7288  
Z Factor: 0.9966

BTU Calculated/cubic ft @ 60 deg.F  
Ideal BTU: 1219.6631  
Dry BTU @ 14.730: 1223.8575

Remark: C6

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 11626  
ORDER NO. R-10694

APPLICATION OF BURLINGTON RESOURCES  
OIL & GAS COMPANY FOR THE ESTABLISHMENT  
OF A DOWNHOLE COMMINGLING "REFERENCE  
CASE" FOR ITS SAN JUAN 27-5 UNIT PURSUANT  
TO DIVISION RULE 303.E AND THE ADOPTION  
OF SPECIAL ADMINISTRATIVE RULES THEREFOR.  
~~SAN JUAN~~ COUNTY, NEW MEXICO.

*Rio* ARRIBA

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 17 and November 7, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 12th day of November, 1996, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Burlington Resources Oil & Gas Company (Burlington), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 27-5 Unit, San Juan County, New Mexico.
- (3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

"If sufficient data exists on a lease, pool, formation, geographic area, etc., so as to render it unnecessary to repeatedly provide such data on Form C-107-A, an operator may except any of the various criteria required under Paragraph 303.D. of this rule by establishing a "reference case". The Division, upon its own motion, or by application from an operator, may establish "reference cases" either administratively or by hearing. Upon Division approval of such "reference cases" for specific criteria, subsequent applications to downhole commingle (Form C-107-A) will be required only to cite the Division order number which established such exceptions and shall not be required to submit data for those criteria."

(4) The applicant is the current operator of the San Juan 27-5 Unit which encompasses some 23,043 acres in Township 27 North, Range 5 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 27-5 Unit, the applicant currently operates one hundred and one (101) Basin-Dakota Gas Pool wells, one hundred and five (105) Blanco-Mesaverde Gas Pool wells, eighty-seven (87) South Blanco-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pool wells, and four (4) Basin-Fruitland Coal Gas Pool wells.

(6) According to its evidence and testimony, Burlington seeks to:

- a) establish a "reference case" for marginal economic criteria in the Dakota and Pictured Cliffs formations whereby these formations and/or pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit. The applicant further proposes that the data provided in the immediate case serve as supplemental data or confirmation that these formations and/or pools should be classified as "marginal";
- b) establish a "reference case" for pressure criteria in the Dakota and Pictured Cliffs formations whereby the Division may utilize data provided in the immediate case to verify the pressure data provided on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit;

- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit; and.
- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 27-5 Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicates that within the San Juan 27-5 Unit:

- a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;
- b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 583 MMCFG and 426 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 393 MCFGD and 63 MCFGD, respectively; and.
- d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(8) The evidence and testimony presented by the applicant indicates that the Dakota and Pictured Cliffs formations within the San Juan 27-5 Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota and Pictured Cliffs formations within the San Juan 27-5 Unit, the applicant presented engineering evidence and testimony which indicates that:

- a) the average shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations at the time of initial development were approximately 3,141 psi and 1,118 psi, respectively; and.
  - b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations are approximately 1,032 psi and 441 psi, respectively.
- (10) There is sufficient pressure data available within the San Juan 27-5 Unit so as to except pressure criteria as proposed by the applicant.
- (11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 27-5 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:
- a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a zone with a well established decline rate is commingled with a newly completed zone;
  - b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.
- (12) The allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore the proposal to except allocation formulas should be approved.
- (13) In support of its request to establish a "reference case" or administrative procedure for providing notice within the San Juan 27-5 Unit the applicant presented evidence and testimony which indicates that:
- a) the interest ownership between two zones within a given wellbore in the San Juan 27-5 Unit is generally not common;
  - b) pursuant to Division Rule No. 303.D., applicant is currently required to notify all interest owners within the San Juan 27-5 Unit every time a Form C-107-A is submitted to the Division. There is a considerable number of such interest owners within the unit;

- c) providing notice to each interest owner within the San Juan 27-5 Unit of subsequent downhole comminglings is unnecessary and is an excessive burden on the applicant;
- d) the downhole commingling of wells within the San Juan 27-5 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 27-5 Unit should not violate the correlative rights of any interest owner;
- e) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

(14) An administrative procedure should be established within the San Juan 27-5 Unit for obtaining approval for subsequent downhole commingled wells without notice to Unit interest owners, provided however that, all other provisions contained within Division Rule No. 303.C. are complied with.

(15) Approval of the proposed "reference cases" for marginal economic criteria pressure criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule No. 303.D. and Form C 107-A, will provide the applicant a streamlined method for obtaining downhole commingling approvals within the San Juan 27-5 Unit, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Picured Cliffs gas production within existing or future drilled wells within the San Juan 27-5 Unit, San Juan County, New Mexico, is hereby approved.

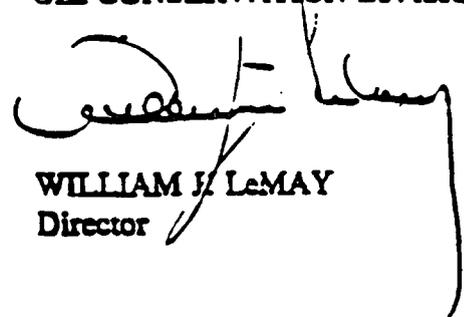
(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 27-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify the Pictured Cliffs and Dakota pressure information provided, and support or justification for utilizing a given method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

(3) In order to obtain Division authorization to downhole commingle wells within the San Juan 27-5 Unit, the applicant shall file a Form C-107-A with the Santa Fe and Aztec Offices of the Division. Such application shall contain all the information required under Rule No. 303.C. of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the San Juan 27-5 Unit of such proposed commingling.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LeMAY  
Director

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