DHC

72/16/96

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November 22, 1996

SAN JUAN DIVISION

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

BURLINGTON

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.

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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;
- C-102 plat for each zone showing its spacing unit and acreage dedication; 2.
- Production curve for both the Pictured Cliffs and Mesa Verde for at least one year; 3.
- 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, Spanned

**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** : \_\_X\_ Administrative \_\_\_Hearing **EXISTING WELLBORE** 

#### **APPLICATION FOR DOWNHOLE COMMINGLING**

\_X\_\_ YES \_\_\_ NO

<b>Burlington Resources Oil &amp; Gas Com</b>	pany	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 \_X\_\_\_, 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 Mesavaerde - 72319
2. Top and Bottom of Pay Section (Perforations)	3162-3226'		4800-5410'
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	(Current) a. 293 psi	a.	a.620 psi
Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1189 psi	b.	b. 1230 psi
6. Oil Gravity ( <sup>°</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 Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date:9/29/96 Rates: 18 MCF/D, 0 BOPD	Date: Rates:	Date: 9-29-96 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: 6as: %

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? If not, have all working, overriding, and royalty interests been notified by certified mail? Have all offset operators been given written notice of the proposed downhole commingling?

\_\_\_\_Yes \_\_\_X\_No \_X\_Yes \_\_\_\_No \_X\_Yes \_\_\_\_No

Will cross-flow occur? \_X\_\_ \_ 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. \_X\_\_\_ Yes \_\_\_\_No (If No, attach explanation) 11. Will cross-flow occur?

12. Are all produced fluids from all commingled zones compatible with each other? \_X\_\_ Yes \_\_\_ No 13. Will the value of production be decreased by commingling? \_\_\_ Yes \_X\_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.\_X\_Yes \_\_\_\_ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10694

SIGNATURE/JUGA

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.

Stathuld\_\_\_\_\_TITLE\_RegulatoryAdministrator\_DATE 10-2-96\_\_\_

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

EW MEXICO OIL CONSERVATION COMM

Well Location and Acreage Dedication Plat

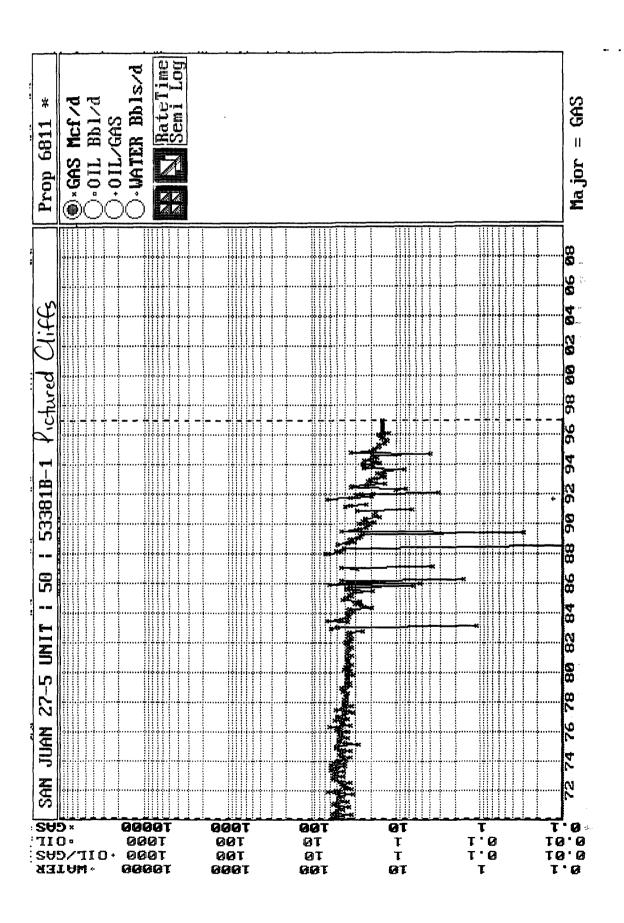
ON

ction A.			Date FEB	RUARY 10	, 1960	)
EL PASO NATURAL GAS COM	PANY	SAN JUAN	27-5 UNIT		-000ú	· •
	ction <b>19</b>	Township	27-N	Range	5-11	NMPM
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nty <b>RIO ARRIBA</b> G. L. Elevat		Dedicated	Acreage			_A ore s
ne of Producing Formation <b>PICTURED CL</b>			BLANCO F	<u>. U. K</u>	LANGU	M. V.
Is the Operator the only owner in the dedic YesNoX	ated acreage outline	a on the plat beid	)W?			
If the answer to question one is "no",	have the interests o	of all the owners	been conso	lidated by	communi	tizatio
agreement or otherwise? Yes X				-	•	
Unit Agreement.				,		٠.
If the answer to question two is "no", lis	st all the owners an	d their respective	interests b	elow:		
Owner		Land	Description		•••	
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tion B.	Note: All dista	nces must be from			15° 17° 17° 1	
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s is to certify that the information ection A above is true and complete	1	NO.				
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(Operator)	1 1		1			
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(Representative)	1		0-	1040		N
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(Address)	1	1		20007		
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		Scale 4 inches			•• ••	•
This is to c	ertify that the above	e plat was prepai	ed from fiel	ld notes of	actual	survey
	or under my supervi edge and belief.	sion and that the	same are t	rue and co	rrect to	une bes

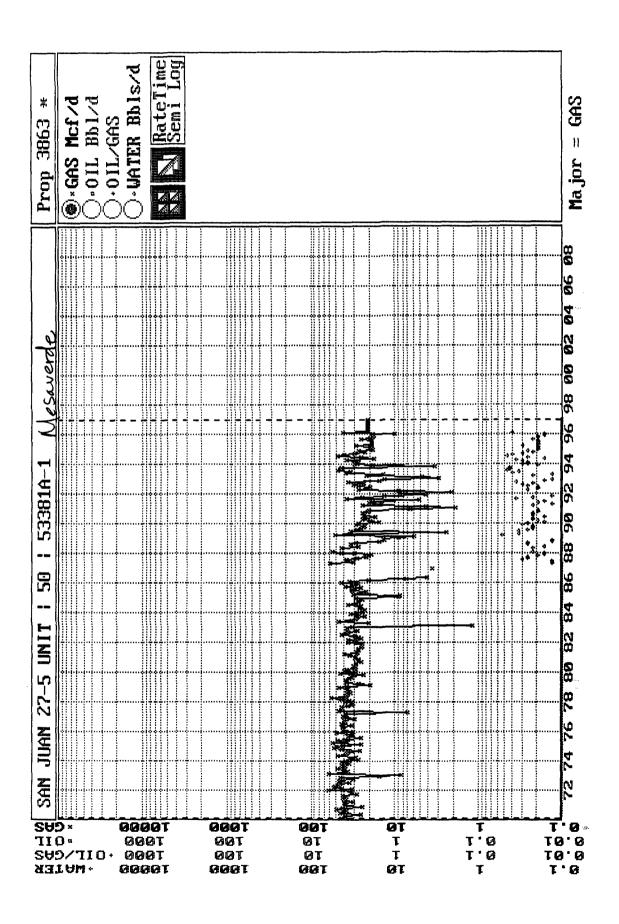
Date Surveyed FEBRUARY 8, 1960, Registered Professional Engineer and/or Land Surveyor

(Seal)

C-128 (6-57)



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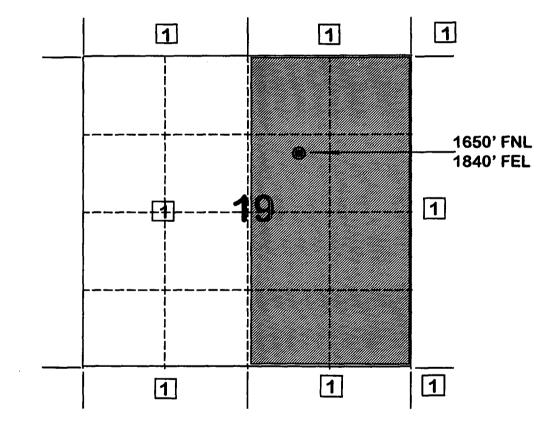


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## BURLINGTON RESOURCES OIL AND GAS COMPANY

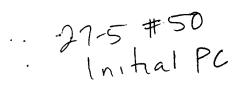
## San Juan 27-5 Unit #50 OFFSET OPERATOR \ OWNER PLAT

## 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.



#### 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

1188.7

BOTTOMHOLE PRESSURE (PSIA)

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### FLOWING AND STATIC BHP CULLENDER AND SMITH METHOD

VERSION 1.0 3/13/94

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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

1229.9

BOTTOMHOLE PRESSURE (PSIA)

BHP.XLS

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FLOWING AND STATIC BHP CULLENDER AND SMITH METHOD

VERSION 1.0 3/13/94

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27.5 #50 Current MV

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

619.5

BOTTOMHOLE PRESSURE (PSIA)

BHP.XLS

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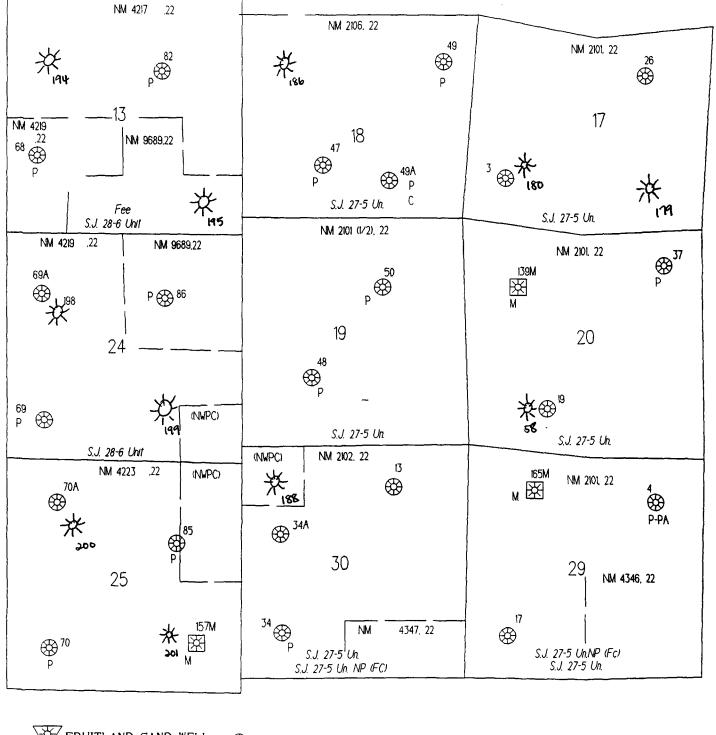
MP NUMBER EFFECTIVE DATE	7499 19950301	** DATA AT TEST PRESSURE UNLESS NOTED ** 4 SAN JUAN 27-5 UNIT 50 (PC)
	42 10	SAN JUAN GAS METER - WELLHEAD SALES
SAMPLE LINE TEM TEST DATE TEST PRESSURE ( TEST TEMPERATUR TEST LIFE (MONT	IPERATURE (DEG PSIG) EE (DEG F) FHS) EA NUMBER	GAS       BTU/CF         19950208       (AT 14.73 PSIG)         WET 1158.502       DRY 1179.000         F)          14.730       WET 1158.502 DRY _1179.000         60       VAPOR FACTOR         6       888029         EL PASO NATURAL GAS
11=PREV SCR	12=MAIN MENU	06=MP/DS LST 07=MP/WN LST 20=NEXT REC 24=HELP PA1=TERMINATE LU #2
OPR008M2 0782		TOGRAPH GAS SAMPLE DETAIL 18:28:04.3 10/01
		PM ** DATA AT 14.730 PSIG UNLESS NOTED * 14.73)
HYDROGEN HELIUM NITROGEN OXYGEN	G MOL % (AT  0.20	PM ** DATA AT 14.730 PSIG UNLESS NOTED *
HYDROGEN HELIUM NITROGEN	G MOL % (AT  DE 0.20  0.99 84.72 8.47 2	PM ** DATA AT 14.730 PSIG UNLESS NOTED * 14.73) MP NUMBER 74994
HYDROGEN HELIUM NITROGEN OXYGEN HYDROGEN SULFID CARBON DIOXIDE METHANE ETHANE PROPANE ISO-BUTANE N-BUTANE	MOL % (AT   	<pre>** DATA AT 14.730 PSIG UNLESS NOTED * 14.73)</pre>
HYDROGEN HELIUM NITROGEN OXYGEN HYDROGEN SULFID CARBON DIOXIDE METHANE ETHANE PROPANE ISO-BUTANE	MOL % (AT    0.20   0.20  0.99  84.72  8.47 2  3.43 0  0.63 0 0.79 0  0.26 0 0 0 0 0 0 0 0 0 0 0 0 0	** DATA AT 14.730 PSIG UNLESS NOTED * 14.73) MP NUMBER 74994 EFFECTIVE DATE 19950301 GASOLINE CONTENT (GPM) 26/70 GASOLINE 100% PROPANE 2657 EXCESS BUTANES .9453 TOTAL

FUNCTION (A,C,D	,I) I	** DATA AT TEST PRESSURE UNLESS NOTED ** 04 SAN JUAN 27-5 UNIT 50 ( $MV$ )
MP NUMBER	726(	04 SAN JUAN 27-5 UNIT 50 $(MV)$
REGION CD MP TYPE CODE	19950301 42 10	SAN JUAN GAS METER - WELLHEAD SALES
SAMPLE LINE TEM TEST DATE TEST PRESSURE (1 TEST TEMPERATUR)	PERATURE (DEG PSIG) E (DEG F) HS) A NUMBER	BTU/CF            14.730         WET 1135.901 DRY 1156.000         1156.000           60         VAPOR FACTOR         1156.000
03=DETAIL SCR	04=MP-NM BRW	S 06=MP/DS LST 07=MP/WN LST
21=PREV SCR 21=REFRESH SCR 3 MY JOB	22=PREV MENU	20=NEXT REC 24=HELP PA1=TERMINATE LU #2
8 MY JOB	0008 CHROM	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/
8 MY JOB	O008 CHROMA	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
8 MY JOB	0008 CHROM	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED **
MY JOB OPR008M2 0782 HYDROGEN HELIUM NITROGEN OXYGEN	0008 CHROMA MOL % (AT 	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** 14.73) MP NUMBER 72604 EFFECTIVE DATE 19950301
MY JOB OPR008M2 0782 HYDROGEN HELIUM NITROGEN OXYGEN HYDROGEN SULFIDI	0008 CHROMA MOL % (AT  0.24 E	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** 14.73) MP NUMBER 72604 EFFECTIVE DATE 19950301 GASOLINE CONTENT (GPM)
MY JOB OPR008M2 0782 HYDROGEN HELIUM NITROGEN OXYGEN HYDROGEN SULFIDI CARBON DIOXIDE METHANE	0008 CHROMA MOL % (AT   E    85.96	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** 14.73) MP NUMBER 72604 EFFECTIVE DATE 19950301 GASOLINE CONTENT (GPM) 26/70 GASOLINE 100% PROPANE
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MY JOB OPR008M2 0782 HYDROGEN HELIUM NITROGEN OXYGEN HYDROGEN SULFID CARBON DIOXIDE METHANE ETHANE PROPANE ISO-BUTANE N-BUTANE ISO-PENTANE	O008 CHROMA MOL % (AT    E   E      	LU #2 ATOGRAPH GAS SAMPLE DETAIL 18:37:14.9 10/01/ GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** 14.73) MP NUMBER 72604 EFFECTIVE DATE 19950301 GASOLINE CONTENT (GPM) 26/70 GASOLINE 100% PROPANE 2.1266 EXCESS BUTANES 0.8130 TOTAL
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# SAN JUAN 27-5 UNIT #50 SECTION 19, T27N, R5W RIO ARRIBA CO., NEW MEXICO



FRUITLAND SAND WELL MESAVERDE WELL  $\swarrow$  FRUITLAND COAL WELL DAKOTA WELL  $\overleftrightarrow{}$  PICTURED CLIFFS WELL GALLUP WELL