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	THIS COVERSHE	ET IS MANDATORY FOR ALL AD	MINISTRATIVE APPLICATIONS F	OR EXCEPTIONS TO I	Division rules a	ND REGULATIONS
Applic	ation Acronyms:	INSO Non Standard	Proration Unit) [NS	I -Non-Standar	d Location)	
	(PC-Po	[DD-Directiona mhole Commingling] ool Commingling] [O [WFX-Waterflood Expansion]	Il Drilling] [SD-Simul [CTB-Lease Comming LS - Off-Lease Storage ansion] [PMX-Pressu Disposal] [1PI-Inject	Itaneous Dedic Jing] [PLC-P 3] [OLM-Off-L are Maintenanc ion Pressure I	ation] ool/Lease Co ease Measu e Expansion] ncrease]	rement]
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[1]	TYPE OF A [A]	PPLICATION - Ch Location - Spacing NSL NSI	Unit - Directional D			7 1998
	Check	Cone Only for [B] ar	nd [C]	۴	1993 (1993) 1993 (1993)	JOS DIVERON
	[B]	Commingling - Sto	orage - Measurement	PC 🖸 OI	LS 🗖 OI	.M
	[C]	Injection - Disposa	l - Pressure Increase X ISWD	- Enhanced C IPI DEC		
[2]	NOTIFICAT	<b>FION REQUIRED</b>	<b>TO:</b> - Check Those To or Overriding Roy			Not Apply
	[B]	Offset Operators	s, Leaseholders or Su	urface Owner	-	
	[C]	Application is C	one Which Requires	Published Leg	gal Notice	
	[D]	V.S. Bureau of Land	l/or Concurrent Appr Management - Commissioner of	roval by BLM Public Lands, State I	or SLO	
	[E]	G For all of the ab	ove, Proof of Notific	cation or Publ	ication is A	tached, and/or,
	[F]	Waivers are Att	ached			

4

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

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, information or notification is cause to have the application package returned with no action taken.

	Note: Statement must be con	mpleted by an individual with supervisory capacity.	
Pegge Bradfield	Statined	Regulatory/Compliance Administrator	1/2
Print or Type Name	Signature	Title	/ D

26/98 ate

DISTRICT |

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

, (and/or) Fee

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

\_\_\_ Federal \_\_\_\_x\_\_, State \_\_\_

**EXISTING WELLBORE** \_YES \_\_X\_NO

<b>Burlington Resources Oil &amp; Ga</b>	is Company	PO Box 4289, Farmington, NM 87499				
Operator		Address				
San Juan 28-6 Unit	170M	1 05-27N-06W	Rio Arriba			
Lease	Well No.	Unit Ltr Sec - Twp - Rge	County			
			Spacing Unit Lease Types: (check 1 or more)			

OGRID NO. \_\_14538\_\_\_\_\_ Property Code \_\_7462\_\_\_\_ API NO. \_\_30-039-25772\_\_\_

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	will be supplied upon completion		will be supplied upon completion
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. 632 psi (see attachment)	a.	a. 1058 psi (see attachment)
Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1252 psi (see attachment)	b.	b. 2500 psi (see attachment)
6. Oil Gravity (□API) or Gas BTU Content	BTU 1169		BTU 1101
7. Producing or Shut-In?	shut in		shut in
Production Marginal? (yes or no)	no		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: n/a Rates:	Date: Rates:	Date: n/a Rates:
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: n/a Rates:	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

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? \_X\_Yes \_\_

Vill cross-flow occur? \_x\_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. \_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). \_\_\_\_Reference Order \_R-10696\_\_\_\_ attached

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	ian aboliseston	TITLE:	Production Engineer	<b>DATE:</b> <u>1/26/98</u>

TYPE OR PRINT NAME Sean Woolverton TELEPHONE NO. (505) 326-9700

-No

er	requ	ired	data.	
	Yes Yes	_x_ _x_	_No _No	

District 1 PO Box 1980. Hobbs. NM 88241-1980 District 11 PO Drawer DD. Artesia. NM 88211-0719 District 111 1000 Hio Brazos Rd., Aztee. NM 87410 District 1V PO Box 2088. Santa Fe. NM 87504-2088

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State of New Mexico Energy, Minerais & 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

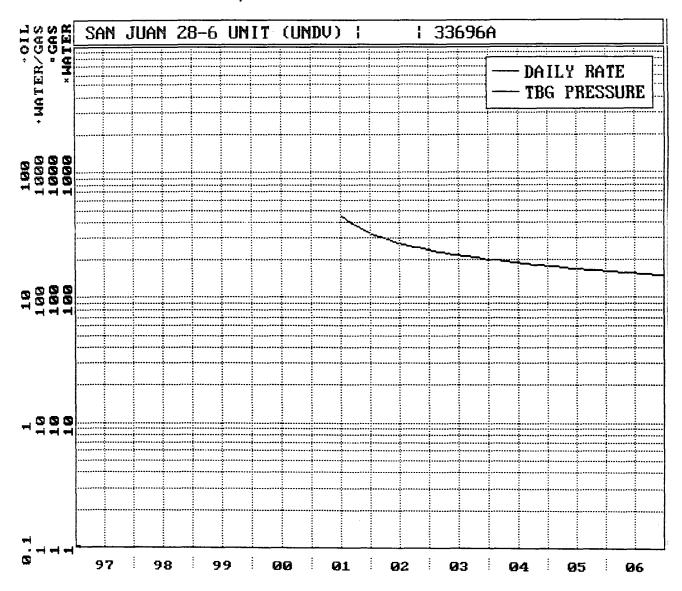
AMENDED REPORT

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### San Juan 28-6 Unit #170M

Blanco Mesaverde

### **Expected Production Curve**

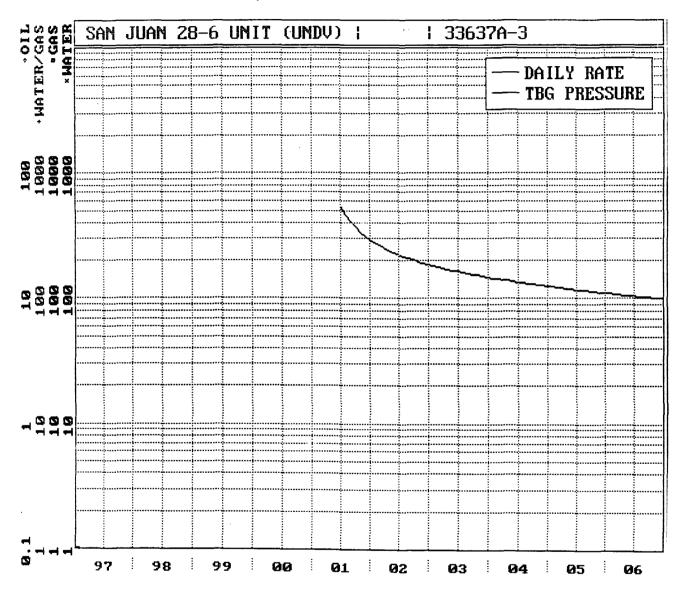


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## San Juan 28-6 Unit #170M

Basin Dakota

### **Expected Production Curve**



### **SJ 28-6 Unit #170M** Bottom Hole Pressures Flowing and Static BHP

Cullender and Smith Method Version 1.0 3/13/94

Mesaverde Dakota **MV-Current DK-Current** GAS GRAVITY 0.645 0.688 GAS GRAVITY Ċ COND. OR MISC. (C/M) С COND. OR MISC. (C/M) %N2 0.3 0.34 %N2 1.15 %CO2 1.11 %CO2 %H2S 0 %H2S 0 1.5 2 **DIAMETER (IN)** DIAMETER (IN) 7613 5431 DEPTH (FT) DEPTH (FT) SURFACE TEMPERATURE (DEG F) 60 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 137 BOTTOMHOLE TEMPERATURE (DEG F) 198 FLOWRATE (MCFPD) 0 FLOWRATE (MCFPD) 0 550 SURFACE PRESSURE (PSIA) 887 SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 631.6 **BOTTOMHOLE PRESSURE (PSIA)** 1058.3 **MV-Original DK-Original** GAS GRAVITY 0.688 GAS GRAVITY 0.645 COND. OR MISC. (C/M) С COND. OR MISC. (C/M) С %N2 0.3 %N2 0.34 %CO2 1.11 %CO2 1.15 %H2S 0 %H2S 0 DIAMETER (IN) 2 DIAMETER (IN) 1.5 5431 DEPTH (FT) DEPTH (FT) 7613 SURFACE TEMPERATURE (DEG F) 60 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 137 BOTTOMHOLE TEMPERATURE (DEG F) 198 FLOWRATE (MCFPD) 0 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 1076 SURFACE PRESSURE (PSIA) 2064 BOTTOMHOLE PRESSURE (PSIA) 1251.8 BOTTOMHOLE PRESSURE (PSIA) 2499.9

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# San Juan 28-6 Unit #170M Blanco Mesaverde / Basin Dakota 27N-06W-05

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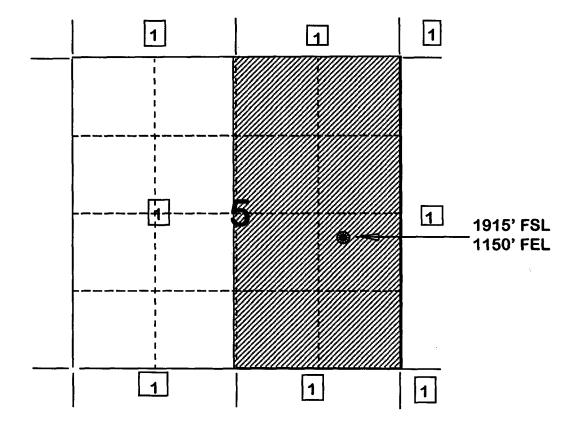
### BURLINGTON RESOURCES OIL AND GAS COMPANY

### San Juan 28-6 Unit #170M

### OFFSET OPERATOR \ OWNER PLAT

### Mesaverde / Dakota Formations Commingle Well

Township 27 North, Range 6 West



1) Burlington Resources

#### 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. 11628 ORDER NO. R-10696

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING "REFERENCE CASE" FOR ITS SAN JUAN 28-6 UNIT PURSUANT TO DIVISION RULE 303.E. AND THE ADOPTION OF SPECIAL ADMINISTRATIVE RULES THEREFOR. SAN JUAN COUNTY, NEW MEXICO.

#### 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 28-6 Unit, San Juan County, New Mexico.

(3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

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- 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 28-6 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 28-6 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 28-6 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 449 MMCFG and 186 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 254 MCFGD and 216 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 28-6 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 28-6 Unit, the applicant presented engineering evidence and testimony which indicates that:

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- c) providing notice to each interest owner within the San Juan 28-6 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 28-6 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 28-6 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 28-6 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 28-6 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 Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-6 Unit, San Juan County, New Mexico, is hereby approved.