DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107-A New 3-12-96

OIL CONSERVATION DIVISION

2040 S. Pacheco Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS :

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

X Administrative ___Hearing

1000 Rio Brazos Rd, Aztec, NM 87410-1693

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE _X_YES __NO

Burlington Resources Oil & (PO Box 4289, Farmingto	UN, N M 8/499
perator	Addr		io Arriba
SAN JUAN 27-5 UNIT	• • • • • • • • • • • • • • • • • • • •		County
ease			nit Lease Types: (check 1 or more)
OGRID NO14538 Property (Code7454 API NO30	-039-06888FederalX , Stat	(8, (and/or) Fee
The following facts are submitted in support of downhole commingling:	Upper Zone	intermediate Zone	Lower Zone
Pool Name and Pool Code	Blanco Pictured Cliffs - 72359	1.00	Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3192-3260'	WEO EUNED	3760-5474'
3. Type of production (Oil or Gas)	Gas	NEGENACIONEIN CONTRACTOR DE CO	Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing	JAN 1 9 1993 1	Flowing
5. Bottomhole Pressure	(Current) a. 463 psi	WILL GOIN, DIN	a. 619 psi
Oil Zones - Artificial Lift: Estimated Current		DIST. 3	
Gas & Oil - Flowing: Current All Gas Zones: Estimated Current Estimated or Measured	(Original) b. 1124 psi	b.	b. 1250 psi
6. Oil Gravity (°API) or Gas BTU Content	BTU 1180		BTU 1233
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	Date:	Date:	Date:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Rates:	Rates:	Rates:
* If Producing, give data and oil/gas/water water of recent test (within 60 days)	Date: 10/98 Rates: 20 MCFD	Date: Rates:	Date: 10/98 Rates: 60 MCFD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: Gas: % To Be Supplied Upon Completion	Oil: Gas: %	Oil: Gas: % To Be Supplied Upon Completion
O. Are all working, overriding, and If not, have all working, overrid Have all offset operators been Will cross-flow occur?x_ production be recovered, and Are all produced fluids from all Will the value of production be If this well is on, or communing Bureau of Land Management has NMOCD Reference Cases for Referenc	orting data and/or explaining med royalty interests identical in all ling, and royalty interests been regiven written notice of the proposition of the allocation formula be released by commingling?	commingled zones? notified by certified mail? notified by certified mail? notified by certified mail? notified by certified mail? npatible, will the formations not iablexYesNo (If N with each other?x_YesYes _x_No (If Yes, attach is, either the Commissioner of applicationxYesNo	yesx_NoYesx_NoYesx_NoYesx_NoYesx_No be damaged, will any cross-flo, attach explanation) No explanation) Public Lands or the United Sion.
l hereby certify that the inform			
SIGNATURE Jamy	Kablen_TITLE_I	Production Engineer	_DATE01-18-99
TYPE OR PRINT NAMEJeni			

Well Location and Acreage Designation Plat

Date FEBRUARY 10, 1960
Township 27-N Range 5-W NMPM Line Dedicated Acreage 160 & 320 Acres Pool SO. BLANCO P.C. EXT.& BLANCO M.V on the plat below?
all the owners been consolidated by communitization over is "yes", Type of Consolidation.
their respective interests below:
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

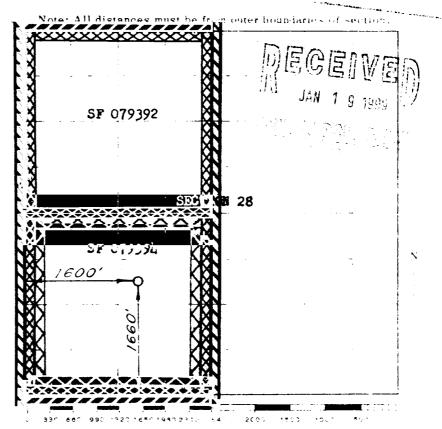
A. C. M. anally
(Representative)

Box 990

(Address)

Farmington, New Mexico

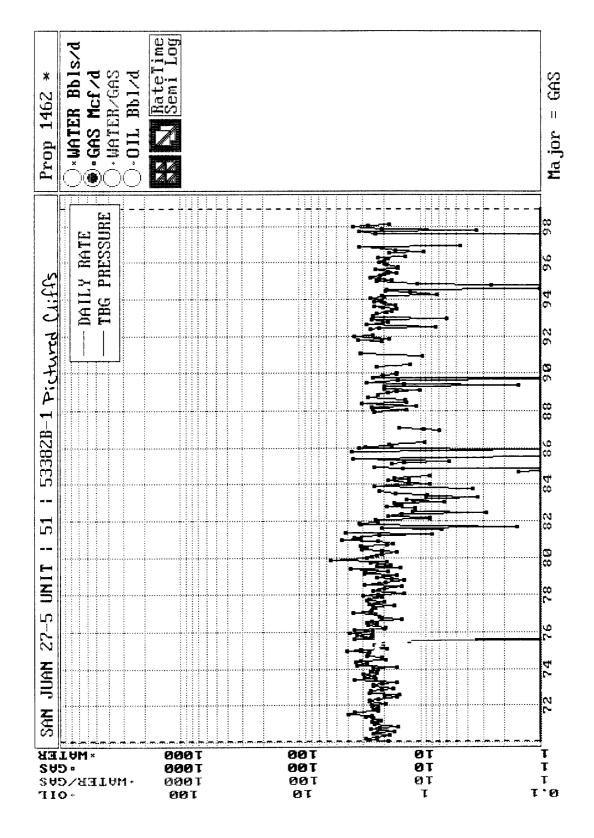
NOTE: THIS PLAT IS RE-ISSUED TO SHOW CORRECTED LEASE INFORMATION. 5/25/60

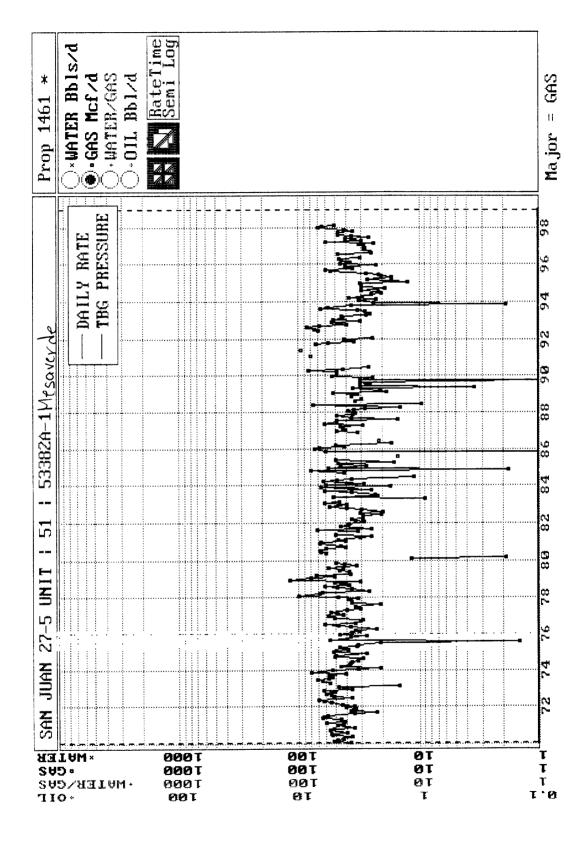


Scale 4 inches equal 1 mile.

This is to certify that the above that was prepared from field notes of active process made by me or under my supervision and that the same are true and a process of my knowledge and belief.

(Seal .	rand Chamer	_
Farming on New Most	hand a taken	/





FARMINGTON

1998 MONTHLY PRODUCTION FOR 53382A PHS030

SAN JUAN 27-5 UNIT 51

BLANCO MESAVERDE (PRORATED GAS FIELD MESAVERDE ZONE

			DAYS	=====	OIL ===	====		=====	GAS	=====	=====		
MO	Т	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD
1	2	F					01	1941	31	1250	15.025		
2	2	F					01	1559	28	1250	15.025		
3	2	F					01	1475	31	1250	15.025		
4	2	F					01	1615	30	1250	15.025		
5	2	F					01	1149	28	1250	15.025		
6	2	F					01	1765	30	1250	15.025		
7	2	F					01	1078	25	1233	15.025		
8	2	F					01	1308	31	1233	15.025		
9	2	F					01	1299	30	1233	15.025		
10	2	F					01	1855	31	1233	15.025		
11													
12													

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTI

00/00/00 00:00:00:0 PRS 12/05/98

FARMINGTON 1998 MONTHLY PRODUCTION FOR 53382B PHS030

SAN JUAN 27-5 UNIT 51

BLANCO P.C. SOUTH (GAS) FIELD PICTURED CLIFFS ZONE

			DAYS	=====	OIL ===	====	======	=	GAS	========	==
MO	Т	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU PRES	SS WATER PROD
1	2	F					01	840	31	1171 15.02	25
2	2	F					01	564	28	1171 15.02	25
3	2	F					01	767	31	1171 15.02	25
4	2	F					01	636	30	1171 15.02	25
5	2	F					01	577	28	1171 15.02	25
6	2	F					01	784	30	1171 15.02	25
7	2	F					01	611	25	1180 15.02	25
8	2	F					01	600	31	1180 15.02	25
9	2	F					01	568	30	1180 15.02	25
10	2	F					01	617	31	1180 15.02	25
11											
12											

PF6 - RETURNS TO ANNUAL DISPLAY PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTI

00/00/00 00:00:00:0 PRS 12/05/98

San Juan 27-5 Unit #51 Bottom Hole Pressures Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

Mesaverde
MV-Current
GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 619.3
MV-Original
GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA) 1089

Page No.: 2

Print Time: Tue Dec 22 09:11:01 1998

Property ID: 1462

Property Name: SAN JUAN 27-5 UNIT | 51 | 53382B-1 Dictured Ciffs
Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

DATE	CUM_GAS Mcf		
04/11/60 05/05/60 10/14/60 05/28/61 07/13/62 07/16/63 10/22/64 05/10/65 04/19/66 08/04/67 05/02/68 08/28/70 04/08/71 07/25/72 05/09/73 02/22/84 06/21/84 11/06/85 10/11/88 05/29/90	0 6000 14000 28000 36000 46000 48000 58000 68000 74000 93064 98665 110371 117355 203743 205473 210129 219963 228115	1024.0-Initial Pressure 1011.0 761.0 722.0 726.0 697.0 706.0 699.0 625.0 591.0 595.0 522.0 497.0 472.0 472.0 435.0 393.0 435.0 394.0	
05/28/92 06/17/94	234627 249505		و

Page No.: 1

Print Time: Tue Dec 22 09:11:00 1998

Property ID: 1461
Property Name: SAN JUAN 27-5 UNIT | 51 | 53382A-1 - Mesaverde
Table Name: Q:\PUBLIC\GENTITY\GDPNOS\TEST.DBF

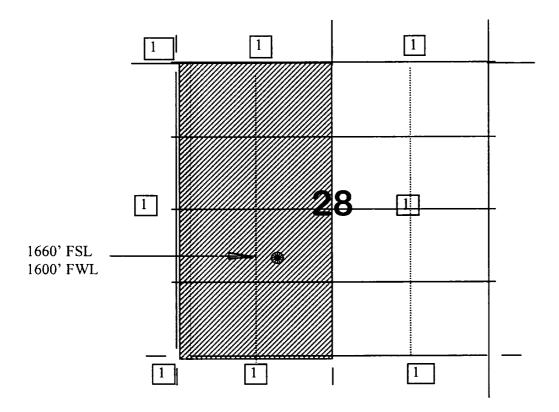
	CUM_GAS			
04/11/60 04/27/60 10/14/60 05/28/61 07/13/62 04/19/63 05/07/64 10/25/65 09/02/66 05/16/67 05/02/68 08/28/70 04/08/71 07/25/72 12/06/83 04/07/86 09/08/89	0 0 26000 47000 76000 89000 110000 141000 160000 177000 195000 234018 245659 267240 439434 468070 503021		Initial	Pressure
05/06/91 05/20/91	519293 519257	559.0 547.0 -	Current	Pressure

BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 27-5 Unit #51

OFFSET OPERATOR/OWNER PLAT Pictured Cliffs (SW/4) & Mesaverde (W/2) Formations Commingle well

Township 27 North, Range 5 West



1) Burlington Resources

	NAME: SAN JUAN 27-6 UNIT #61		UNIT: K SEC: 28 TWN: 27N RNG: 6W					227 N		LEGEND COMPLETION DATE WELL NAME MEF/D-CUM(MMB) BOP/D-CUM(MBO)
					11/62	S.J. 27-5 Unit #80 69/1030 (98)				
		m .	nit #168		•	S.J. 27 69/				
		1/73	S.J. 27-6 Unit #166 37/366 (ees			:		r	[34]	
			23		_	nit # 42		[2]	<u> </u>	
		87/1	S.J. 27-6 Unit #166 102/1072 pen		6/69	S.J. 27-6 Unit # 42 76/862 pag				
-	06.		£1/7	S.J. 27-5 Unit #154 3/231 (98)			9/82 S.J. 27-6 Unit #71 - 87/802 (ee)			
80/4	S.J. 27-5 Unit #30 145/617 pen			S.J. 2)			2. L. &			
,	σ		[21]	£ 471				[28] (# 61 (8)	(33)	
				S.J. 27-5 Unit #41 104/477 (98)				28 4/80 8.J. 27-5 Unit # 61 49/612 [98]		
				Ø				6		
3/08	S.J. 27-6 Unit #37 63/897 (98)						9/63 5.J. 27-5 Unit #4 201/869 lest			
	S.J.						. τ.α.			
			[50]			88		[29]	[32]	
					19/4	S.J. 27-5 Unit #58 15/232 (08)				
						ω̈́				

	3/68		4/68			DATE:	January 13,1999
rs	S.J. 27-6 Unit #37	s	S.J. 27-5 Unit #30			NAME:	SAN JUAN 27-6 UNIT #61
	(88) (88/80		140/01/488			FORM:	MESAVERDE
2/96	_				11/64	NO.F	
3.J. 27-6 Unit #139M 194/315 (98)					S.J. 27-5 Unit #9 29/284 teet	ONIT:	× 28
[50]		[21] 3/69	7/86		[22]	RNG	27N 6W
		S.J. 27-6 Unit #41 104/477 (98)	S.J. 27-5 Unit #125E 86/78 lost				
2/57			•••	89/9	4/97		
S.J. 27-6 Unit #19				S.J. 27-6 Unit # 42	S.J. 27-5 Unit #117		
78/1315 (98)			000	76/852 (98)	187/124 (98)		
1/80 8.J. 27-5 Unit #105M 169/689 [es	-		8.J. 27-6 Unit #71 67/802 (set				
					11/66		
					Ξ		
[29] 6/98		128]			[27] + 1/// (los) 27		
S.J. 27-5 Unit #140M 160/39 pag	_	8.J. 27-5 Unit # 51 49/612 (98)					
99/6	_			8/61			
S.J. 27-5 Unit #17 218/3898 (ee)				S.J. 27-5 Unit #66 57/676 (48)			
			8/61				
			S.J. 27-5 Unit #68 67/775 test				
1/81		1/81		3/20	11/63		
S.J. 27-5 Unit #8A		S.J. 27-5 Unit #35A		S.J. 27-6 Unit #60A	S.J. 27-6 Unit #6		
76/510 pes [32]		221/1306 (ae) (33)		92/618 test	103/545 (98)		
12/64	1/80		1/81	7/60	3/81		
S.J. 27-5 Unit #8 S.J. 87/2964 per	S.J. 27-5 Unit #24A 79/595 teel		S.J. 27-6 Unit #08A S.J. 27-5 Unit #50 108/886 ion 103/2156 ion	S.J. 27-5 Unit #58 103/2158 (108)	S.J. 27-5 Unit #6A 81/591 teel	LEGEND	
		o in the second				COMPLET	ON DATE
		8.J. 27-6 Unit #36				WELL NAME MCF/D-CUM(MMF)	1E M(MMF)
		46/531 (96)		100000000000000000000000000000000000000		BOP/D-CU	M(MBO)

R-6-W

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.

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. Stogne: respectively.

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

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division is 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 downhold commingling "reference case" to provide exceptions for (a) marginal economic criteria. (b) pressure criteria. (c) allocation formulas and (d) modification of notification rules a unit-wide basis for downhold commingling of Dakota. Mesaverde. Fruitland Coal : Pictured Cliffs gas production within existing or future drilled wells within the San J-27-5 Unit. San Juan County, New Mexico.
- (3) Division Rule No. 303.E., amended by Order No. R-10470-A, curre: 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-Mesaverd Gas Pool wells, eighty-seven (87) South Blanco-Pictured Cliffs and Tapacito-Picture 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;

- 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 applican 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 Dakota and Pictured Cliffs formations within the San Juan 27-5 Unit should be proper classified as "marginal".
 - (9) In support of its request to except pressure criteria within the Dakota : Pictured Cliffs formations within the San Juan 27-5 Unit, the applicant present 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 s 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 utilizer industry and approved by the Division and therefore the proposal to except alloca 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 prese evidence and testimony which indicates that:
 - a) the interest ownership between two zones within a given weilbore 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;
- 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 2' Unit for obtaining approval for subsequent downhole commingled wells without notice Unit interest owners, provided however that, all other provisions contained wit Division Rule No. 303.C. are complied with.
- (15) Approval of the proposed "reference cases" for marginal economic crite pressure criteria, allocation formulas and notice will lessen the burden on the applic insofar as providing the data required pursuant to Division Rule No. 303.D. and Form 107-A, will provide the applicant a streamlined method for obtaining down comminging approvals within the San Juan 27-5 Unit, and will not violate correlarights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Burlington Resources Oil & Gas Company to estait a "reference case" for (a) marginal economic criteria. (b) pressure criteria. (c) allocation and (d) modification of notification rules on a unit-wide basis for down commingling of Dakota. Mesaverde. Fruitland Coal and Pictured Cliffs gas production existing or future drilled wells within the San Juan 27-5 Unit. San Juan Coal 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 Frand 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 : the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISIO:

WILLIAM JE LEMAY

Director