DATEI						TYPE					
UAIEI	6/3/97	623 97	B5/AC		KV		DHC				
· * *			ABOVE THIS LINE FOR DIVI	SION USE ONLY				159f			
	NEW MEXICO OIL CONSERVATION DIVISION										
	- Engineering Bureau -										
	ADMINISTRATIVE APPLICATION COVERSHEET										
	THIS COVERSH	EET IS MANDATORY FOR ALL	ADMINISTRATIVE APPLICAT	IONS FOR EXCER	TIONS TO DIVISIO	N RULES AND RE	GULATIONS				
Appli	- (PC-P	[NSP-Non-Standa [DD-Directio vnhole Commingling] ool Commingling] [[WFX-Waterflood E:	[CTB-Lease Com [OLS - Off-Lease Sto (pansion] [PMX-Po er Disposal] [IPI-I	Simultaneou nmingling] prage] [O ressure Mai njection Pre	IS Dedication [PLC-Pool/L LM-Off-Lease Intenance Expessure Increa) ease Commi Measureme pansion] ase]	nt]				
[1]	TYPE OF A	PPLICATION - C	heck Those Whic	h Apply fo	r [A]	E G	EIVE	D			
[-]	[A]		ng Unit - Direction			JUN	- 3 1997				
	Checl [B]	k One Only for [B] Commingling - S	torage - Measuren	nent PC	OLS		WATION DIVIS	ION			
	[C]	Injection - Dispos	sal - Pressure Incr MX 🔲 SWD	ease - Enha	anced Oil Re	ecovery		·			
[2]	NOTIFICA [A]	TION REQUIREI	TO: - Check Thalty or Overriding				Apply	·			
	[B]	Giffset Operato	ors, Leaseholders o	or Surface	Owner						
	[C]	Application is	One Which Requ	ires Publis	hed Legal N	otice					
	[D]		nd/or Concurrent A nd Management - Commissio								
	[E]	Given For all of the a	bove, Proof of No	otification	or Publicatio	on is Attach	ed, and/or,				
	[F]	U Waivers are A	ttached					·			
6a -											

[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.

\frown	Note: Statement must be completed	d by an individual with supervisory capacity.	
Peggy Bradfield	Stadpuld	Regulatory/Compliance Administrator	6/2/97
Print or Type Name	Signature	Title	Date



SAN JUAN DIVISION

June 2, 1997

SENT FEDERAL EXPRESS

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

Re: San Juan 29-7 Unit #128M 790'FNL, 790'FWL Section 27, T-29-N, R-7-W, Rio Arriba County, NM API #30-039-25652

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota in the subject well. This well is planned to be drilled and completed as a Mesa Verde/Dakota commingle in 1997.

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 Dakota and expected production curve for the Mesa Verde;
- 4. Notification list of offset operators Burlington is the surrounding operator;
- 5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
- 6. Nine-section plats for the Mesa Verde and Dakota.

Notification of Mesa Verde and Dakota interest owners is covered under Order R-10697 dated November 8, 1996 attached.

We will consult with the Supervisor of the Aztec District Office of the New Mexico Oil Conservation Division to establish an allocation formula.

Please let me know if you require additional data.

Sincerely,

(mahund

Peggy Bradfield Regulatory/Compliance Administrator

xc: Bureau of Land Management - hand delivered

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** _ YES _xNO

APPLICATION FOR DOWNHOLE COMMINGLING

PO Box 4289, Farmington, NM 87499 **Burlington Resources Oil & Gas Company** Operator Address SAN JUAN 29-7 UNIT 128M D 27--29N-7W **Rio Arriba** Well No Unit Ltr. - Sec - Twp - Rge Lease County

OGRID NO. 14538

Spacing Unit Lease Types: (check 1 or more) ____ Property Code ____7465_____ API_NQ_30-039-25652__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	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. 637 psi (see attachment)	а.	a. 905 psi (see attachment)
Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Original) b. 1248 psi (see attachment)	Ь.	b. 3157 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content	BTU 1155		BTU 1027
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: 6as: % % 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. 9.

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 ___Yes __x__No _x_Yes ___No

Will 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). _R-10697_

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	
TYPE OR PRINT NAME <u>Sean C. Woolverton</u> TELEPHONE NO. (505) 326-9700	-

District I PO Box 1980, Hobbs, NM 88241-1980 District II PO Drawer DD, Artesia, NM 88211-0719 District III 1000 Rio Brazos Rd., Aztee, NM 87410 District IV PO Box 2089, Santa Fe, NM 87504-2089

. .

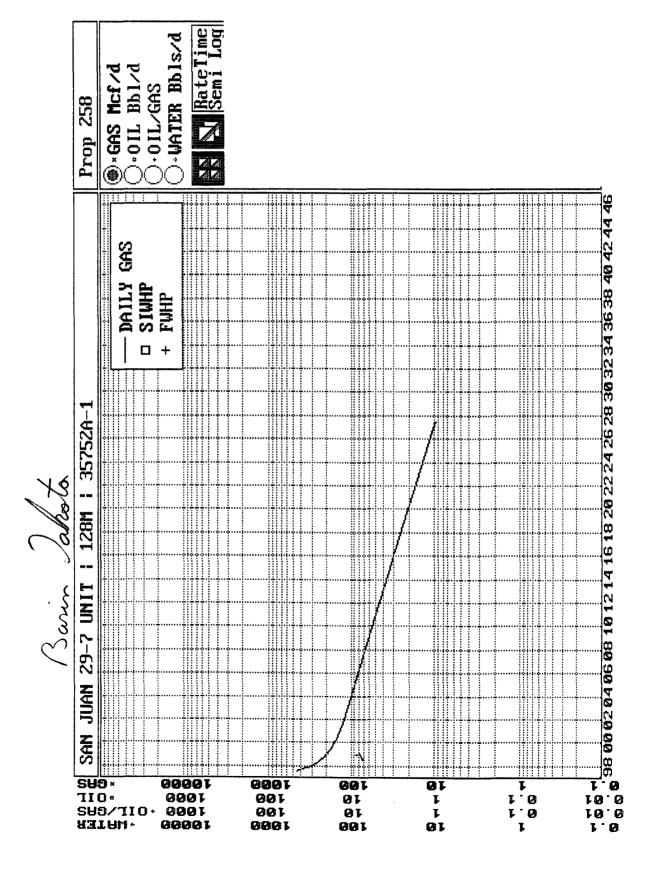
.

State of New Mexico Energy, Minerais & Natural Resources Department

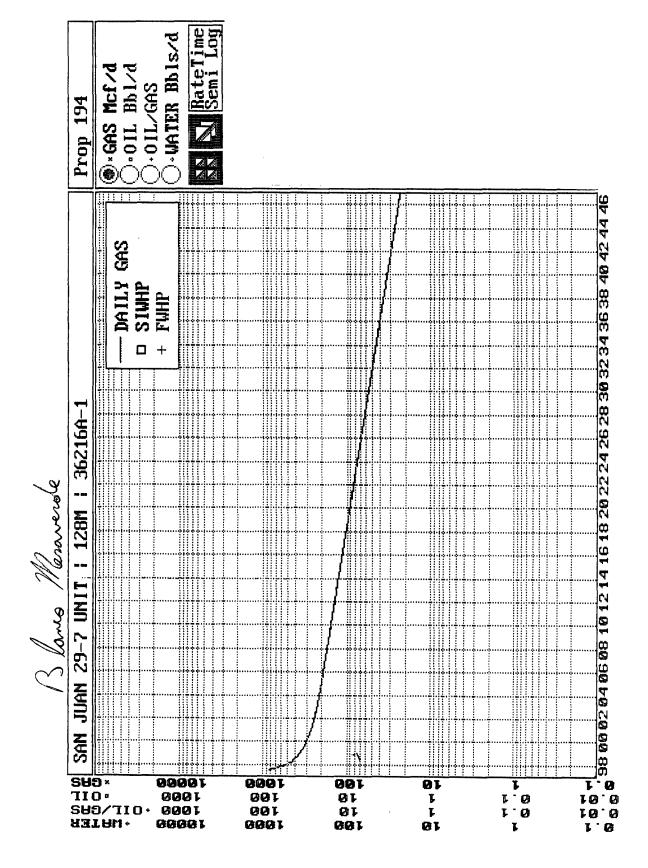
OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102 Revised February 21, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

AMENDED REPORT

		WE	LL LOO	CATION	I AND ACR	EAGE DEDI	CAI	TION PL	AT		
· /	PI Numbe	r		² Pool Code				' Pool Na	me		
30-039-			7231	9/7159	9Bla	nco Mesave	erde	e/Easin	Dako	ta	
' Propersy Code					' Property	Nume				· Well Number	
7465				Sar	<u>1 Juan 29</u>					128M	
'OGRID	No.				' Operator						* Elevation
14538		8		TON RI		OIL & GAS	COM	IPANY	ANY 6856'		
					¹⁰ Surface	Location		<u> </u>		_	
UL or iot no.	Section	Township	Range	Lot idn	Feet from the	North/South line	Fee	t from the	East/Wes	t üne	County
D	27	29-N	7-W		790	North		790	We	st	R.A.
		<u>_</u>	¹¹ Boti	om Hol	e Location I	f Different Fro	om	Surface	-		
UL or iot no.	Section	Township	Range	Lot idn	Feet from the	North/South line	Fee	t from the	East/Wes	t übe	County
					L						
4V -W/32 0 DK-W/32		or Infill '4 (Consolidatio	n Code '' C	erder No.						
NO ALLO	VABLE					ON UNTIL ALL				EN COI	NSOLIDATED
16			52	289. Z	4.			¹⁷ OPEF	ATOR	CERT	TIFICATION
	ò		·	11							contained herein is
	067							true and com	piete to the t	est of my	knowledge and belief
790'	. 0										
	SE	0784	-74					Signature			
			<u> </u>						v Brad	field	3
							•	Printed Nan			
0							0	Regn Tille	atory	Admi	inistrator
							0		_		
80.00			(っフ			80	Date			
N ===			(27°			2	¹⁸ SURV	/EYOR	CERT	TIFICATION
N				11			S	I hereby cert			n chana an shis plat
"								was piotted f or under my	rom field not supervision.	us of active and that if	el surveye made by me he same is true and
	i							correct to the	t best of my	beiief.	
	SF-	0784	-25						11/2	2/96	
	- •		<u> </u>					Date of Surv		<u>, Ç. E</u>	DW
								Signature and		M	DWARDS
									NEA	4	ETICOS
									1 2	Z(68	57 5
		ł								\sim	
				705 -	,a			6857 Génifique N	HAC.		
L'			- 5	285.2	$\mathcal{L}_{\mathbf{L}}$					PROF	EBSIONA



١.



. 1.

.

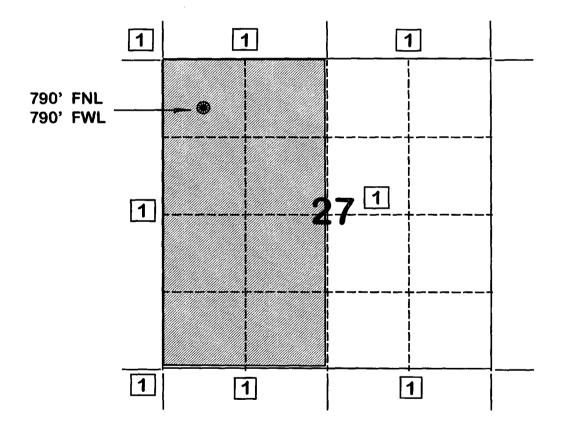
0

BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 29-7 Unit #128M OFFSET OPERATOR \ OWNER PLAT

Mesaverde/Dakota Formations Commingle Well

Township 29 North, Range 7 West



1) Burlington Resources Oil and Gas Company

REQUESTED RECORD NOT FOUND (OPR008M1 S001 0008 CHRO	NEXT RECORD DISPLAYED) MATOGRAPH TEST MAIN SCREEN 20:05:04.5 05/20/97
FUNCTION (A,C,D,I) i MP NUMBER 95	** DATA AT TEST PRESSURE UNLESS NOTED ** 441 ^{\-} SAN JUAN 29-7 UNIT 128 SAN JUAN GAS METER - WELLHEAD SALES
REGION CD42MP TYPE CODE10	SAN JUAN GAS METER - WELLHEAD SALES
SAMPLE TYPE CODE (GAS,LIQ,B SAMPLE DATE SAMPLE LINE PRESSURE (PSIG) SAMPLE LINE TEMPERATURE (DE	GAS BTU/CF 19951102 (AT 14.73 PSIG) WET 1046.484 DRY 1065.000 GF)
TEST PRESSURE (PSIG) TEST TEMPERATURE (DEG F)	BTU/CF
TEST LIFE (MONTHS) TESTER SOURCE BA NUMBER TEST PURPOSE CODE	098795 EL PASO FIELD SERVICES
11=PREV SCR 12=MAIN MEN	NS 06=MP/DS LST 07=MP/WN LST J 20=NEXT REC J 24=HELP PA1=TERMINATE LU #3
OPR008M2 S001 O008 CHRO	MATOGRAPH GAS SAMPLE DETAIL 20:05:08.6 05/20/97
MOL % (A	GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** F 14.73)
HYDROGEN HELIUM NITROGEN0.11 OXYGEN	MP NUMBER 95441 EFFECTIVE DATE 19960701
HYDROGEN SULFIDE CARBON DIOXIDE 1.51 METHANE 92.75 ETHANE 4.02	GASOLINE CONTENT (GPM) 26/70 GASOLINE 100% PROPANE 1.0754 EXCESS BUTANES
PROPANE ISO-BUTANE N-BUTANE 0.16	0.2177 TOTAL 0.0785 0.0504
ISO-PENTANE 0.12 N-PENTANE 0.05 HEXANE	0.0439 SPECIFIC GRAVITY 0.0181 CALCULATED _0.6120 MEASURED
HEXANE PLUS0.25 HEPTANE PLUS TOTALS 100.00	0.1091 SULPHER GRAINS / 100 CU FT 1.5931
03=MAIN SCREEN B MY JOB	24=HELP PA1=TERMINATE NUM LU #3

· • •

.

REQUESTED RECORD NOT FOUND (NEXT RECORD DISPLAYED) OPR008M1 S001 O008 CHROMATOGRAPH TEST MAIN SCREEN 20:06:04.5 05/20/97 FUNCTION (A,C,D,I) i ** DATA AT 1221 72142 SAN JUAN 29-7 UNIT ** DATA AT TEST PRESSURE UNLESS NOTED ** MP NUMBER 7214 EFFECTIVE DATE 19960701 59 REGION CD42MP TYPE CODE10 SAN JUAN GAS METER - WELLHEAD SALES SAMPLE TYPE CODE (GAS, LIQ, BTU) GAS ----- BTU/CF -------- (AT 14.73 PSIG) --19960510 SAMPLE DATE SAMPLE LINE PRESSURE (PSIG) WET 1169.310 DRY 1190.000 SAMPLE LINE PRESSURE (FSIG, ______ SAMPLE LINE TEMPERATURE (DEG F) _____ TEST TEMPERATURE (DEG F)14.730WET _1169.310 DRY _1190.000TEST LIFE (MONTHS)_____6TESTER SOURCE BA NUMBER_____6 $\overline{098795}$ EL PASO FIELD SERVICES 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 #3 O008 CHROMATOGRAPH GAS SAMPLE DETAIL 20:06:09.4 05/20/97 OPR008M2 S001 GPM ** DATA AT 14.730 PSIG UNLESS NOTED ** MOL % (AT 14.73) MP NUMBER 72142 HYDROGEN EFFECTIVE DATE 19960701 HELIUM 0.17 NITROGEN OXYGEN -- GASOLINE CONTENT (GPM) --26/70 GASOLINE 84.73 100% PROPANE METHANE ___7.72 2.0651 0.9729 0.2257 EXCESS BUTANES ETHANE ___3.53 PROPANE TOTAL ISO-BUTANE N-BUTANE ___0.69 ___0.97 0.3058 ISO-PENTANE _0.38 ___0.38 ___0.30 0.1390 ---- SPECIFIC GRAVITY -----N-PENTANE 0.1087 CALCULATED 0.6870 HEXANE MEASURED 0.45 0.1963 HEXANE PLUS HEPTANE PLUS SULPHER GRAINS / 100 CU FT 100.00 4.0135 TOTALS -----_____ 03=MAIN SCREEN 24=HELP PA1=TERMINATE B MY JOB NUM LU #3

• • •

San Juan 29-7 Unit #128M Bottom Hole Pressures Flowing and Static BHP Cullender and Smith Method

. . .

Version 1.0 3/13/94

Mesaverde	Dakota					
<u>MV-Current</u>	<u>DK-Current</u>					
GAS GRAVITY 0.687 COND. OR MISC. (C/M) C %N2 0.17 %CO2 1.06 %H2S 0.00 DIAMETER (IN) 2.375 DEPTH (FT) 5434 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 142 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 555 BOTTOMHOLE PRESSURE (PSIA) 636.9	GAS GRAVITY0.612COND. OR MISC. (C/M)C%N20.11%CO21.51%H2S0.00DIAMETER (IN)2.375DEPTH (FT)7997SURFACE TEMPERATURE (DEG F)60BOTTOMHOLE TEMPERATURE (DEG F)197FLOWRATE (MCFPD)0SURFACE PRESSURE (PSIA)762BOTTOMHOLE PRESSURE (PSIA)905.0					
<u>MV-Original</u>	<u>DK-Original</u>					
GAS GRAVITY 0.687 COND. OR MISC. (C/M) C %N2 0.17 %CO2 1.06 %H2S 0.00 DIAMETER (IN) 2.375 DEPTH (FT) 5434 SURFACE TEMPERATURE (DEG F) 60 BOTTOMHOLE TEMPERATURE (DEG F) 142 FLOWRATE (MCFPD) 0 SURFACE PRESSURE (PSIA) 1074 BOTTOMHOLE PRESSURE (PSIA) 1247.9	GAS GRAVITY0.612COND. OR MISC. (C/M)C%N20.11%CO21.51%H2S0.00DIAMETER (IN)2.375DEPTH (FT)7997SURFACE TEMPERATURE (DEG F)60BOTTOMHOLE TEMPERATURE (DEG F)197FLOWRATE (MCFPD)0SURFACE PRESSURE (PSIA)2621BOTTOMHOLE PRESSURE (PSIA)3156.8					

Page No.: 1 Print Time: Tue May 20 10:17:46 1997 Property ID: 2096 Property Name: SAN JUAN 29-7 UNIT | 128 | 1474-1 Table Name: K:\ARIES\RR98PDP\TEST.DBF DIC

· .

--DATE-- ---CUM GAS-- M_SIWHP Mcf - initia 2621.0 *<* 09/20/85 0 12/09/85 45737 1425.0 10/04/86 76784 1339.0 11/23/87 156265 1012.0 10/10/88 199995 900.0 07/31/90 265515 833.0 05/28/92 329433 826.0 11/02/92 curre 350683 762.0 E

MV

Page No.: 1 Print Time: Tue May 20 10:15:41 1997 Property ID: 4444 Property Name: SAN JUAN 29-7 UNIT 59 | 69656-1 Table Name: K:\ARIES\RR98PDP\TEST.DBF --DATE-- ---CUM_GAS-- M_SIWHP 1074.0 emilial)7/09/57 0)9/26/57 0 1073.0 12/06/58 75000 832.0)3/29/59 106000 757.0

• ,

) 9/06/60	266000	657.0	
10/05/61	362000	6 16 .0	
)3/13/62	386000	6 68. 0	
02/12/63	448000	6 90 .0	
02/07/64	519000	6 30 .0	
02/25/65	578000	6 46 .0	
02/28/66	631000	652.0	
01/10/67	0	0.0	
03/03/67	690000	614.0	
03/05/68	755000	6 04 .0	
05/27/69	826023	583.0	
08/18/70	911787	533.0	
03/30/71	941027	5 71. 0	
06/12/72	989933	627.0	
08/21/74	1055421	652.0	
0 4/20/7 6	1100007	651.0	
05/16/78	1179653	5 96. 0	
0 7/29/ 80	1324662	4 66. 0	
05/13/82	1416864	4 92. 0	
07/05/84	1495661	474.0	
10/04/86	1558511	494. 0	
05/21/89	1649163	514.0	
07/10/91	1694881	5 67 .0	C
07/30/91	1694881	555.0 🧲	current

ക്	(024485-T) NM 8952 22 (TEXACO)	NM 326 79A	⁵⁰ ⊕ ¹⁴⁴ 326	MOL \$	32 32	ila (Tenne BB	00) 🛞 83	93A PM		85A WOI	sa (⊕
88 00 10 12	€9 6 €0 €0 222-7 Unr	reaces	5 <u>B</u> B ⁹⁰⁴ 	ур 34 34 8 8 8 3 3 3 3 3 3 3 3 3 3 3 2 8 3 3 3 2 8 3 3 3 2 7 2 1 2 1 2 1 2 1 2 1 2 7 2 1 2 1 2 7 2 1 2 1	82A 838	S J 78-7 U	NN 40, 22 83A 9 P		2 &	ו פא ווע <i>רפנ</i> נצ	** &
107- Nu Nu Nu Nu Nu Nu Nu Nu Nu Nu Nu Nu Nu	440-1) A 8409 MPU SS ¹⁰¹	00 NA 83388 100 100 100 100 100 100 100 100 100 1	22 48 90 92	NM 874 A-B 80A	NN 5328.0x.22 35 6 9 M 325 NM 328 Z2.30	NM 401 22 60LACK V22 40 P NM 328, 22,30 NM 328, 22,30	NM 850	NM 9328.		NN 327 2230 37A S	(TENECO) 38 1020-08- T-(T-2 NM 8078 A 8 6
کی دی <i>یرد</i>	8 7 Uzz EN ECO:	25 ************************************	48A (55) (M) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107) (107)	08	≫⊼∧ ⊗	5.J.29-7 U w20408-	63A 63A	57 300 POW SJ29-7 NM 9328, 022	64A () () () () () () () () () ()	22 57 5.128+7 Unit	** *
*	* ***	86A 1233 14	\$		⊕ [∎]	\$ ^{22∧}	54 600 0400	54A (1) (1) (1) (1) (1) (1) (1) (1)	⇔ ⁶⁷	234	NGCV22 02048- 17 22 11-2 31 22 11-2 31 32 NM 88278 A & B
76R 60 76 76 78 78 78 70	-G 40, 22	96 ∰ € SJ28-7	7 88 N	6) وم الع معرفي علي محدر 2	29-7 un		56A	54 (NAPO 14 (S) NAPO 14 (S)	624	29 30 13 13 13 13 13 13 13 13 13 13	
ITENNECO) 94A 🚱	NU 360	SA BA V	49 8297,90.22 49 8 8 9 8 9	NJ 5327.		<u>SJ297</u> (J NM 328,	22.30 55	NAI 328. (NAIP 22,30	° •••••° *⊛	NAPO 734 NAPO	
₩ **	ели EA	21	*** 13 14	ත 21 ි සි		₩ 892 22 65 69	554 ^{NM} 3337.01.22	NM 8327 9.22 MAP MO10 87	F)	2 NM 9337 04 -	NN 830 00
5.129-7 NM 350 78A	88 88 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80		ан и на 1 2 2 2 2 3 2 3 3 2 3 3 3 3 3 3 3 3 3 3	5.238-7 U (TENNECO) 1744 183 14	₩ ₩ 8377,0.22 40 ₩ ₩ ₩ 00E	5.379-7 U NJ 83270C	2 53	S.129-7 (INAPO M(01 M 9329 0122	72 0122 72 0122 NM 857	5,1,29-7 Uni Nui 8,129.0 158 158	⁸⁹
78 888855 ⁸⁶ 87.5	30 1094 125 14	29 ng 🕸 BB	ka XX v	24 41 555 075NV 5.129-7 Uni	404 図 M	27 59 28 59 28 59 52	(TENECO)	2 ************************************	NN 9329523 0122 V	25 هه <i>دري</i> هه درورر	E C C C C C C C C C C C C C C C C C C C
wn wn ₩	₩€00 20 82 83 83 83 83 83 83 83 83 83 83 83 83 83	S.129-7 (NW 304 NW 1 NW 304 NW 1 J2A M M	89°, 89°	ITEN•€CO MIM K	NN 401 22 77E 17 17E	NH 602 64 10 10 10 10 10 10 10 10 10 10 10 10 10	80122 60 39	NM 8591 704 823 N	NM 9339.01.22 30 50E	NM 307 05M 년 년	\$ 8 8 8
ы В В В В В В В В В В В В В В В В В В В	w Kangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Mangarang Man	NM 10324 32E 322 32E 32 32 32 32 32 53 53 53 53 53 53 53 53 53 53 53 53 53	2 88 9 10 11	м 33 97 🕅	77A (1) (1) (1) (1) (1) (1) (1) (1)	34 🛞 5.129-7 Uni	88 88 8	70€ ⁷⁰ ⊠∰	30A ₩	36 33 39 50 51 51 51 51 51 51 51 51 51 51 51 51 51	₽^ 839

• • •

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. 11629 ORDER NO. R-10697

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING "REFERENCE CASE" FOR ITS SAN JUAN 29-7 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 8th 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 29-7 Unit, San Juan County, New Mexico.

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

CASE NO. 11629 Order No. R-10697 Page -2-

> "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 29-7 Unit which encompasses some 22,500 acres in Township 29 North, Range 7 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 29-7 Unit, the applicant currently operates fifty-five (55) Basin-Dakota Gas Pool wells, one hundred thirty-one (131) Blanco-Mesaverde Gas Pool wells, thirteen (13) Blanco-Pictured Cliffs and South Blanco-Pictured Cliffs Gas Pool wells, and forty-nine (49) 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 29-7 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 29-7 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 29-7 Unit; and. CASE NO. 11629 Order No. R-10697 Page -3-

3

d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 29-7 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 29-7 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 245 MMCFG and 76 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 218 MCFGD and 238 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 29-7 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 29-7 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 was approximately 3,209 psi and 1,148 psi, respectively; and,
- b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations is approximately 952 psi and 655 psi, respectively.

CASE NO. 11629 Order No. R-10697 Page -4-

(10) There is sufficient pressure data available within the San Juan 29-7 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 29-7 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 29-7 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 29-7 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 29-7 Unit every time a Form C-107-A is submitted to the Division. There are a considerable number of such interest owners within the unit;
- c) providing notice to each interest owner within the San Juan 29-7 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 29-7 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 29-7 Unit should not violate the correlative rights of any interest owner;

CASE NO. 11629 Order No. R-10697 Page -5-

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 29-7 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 29-7 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 29-7 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 29-7 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 29-7 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 29-7 Unit of such proposed commingling.

:

CASE NO. 11629 Order No. R-10697 Page -6-

. . .

(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

S E A L