

DATE IN 4/18/00	SUSPENSE 5/8/00	ENGINEER DC	LOGGED MN	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

2735

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

**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

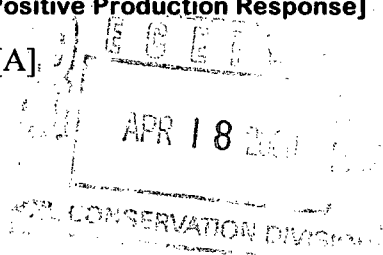
Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

X 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] X 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** - 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 completed by an individual with supervisory capacity.

Peggy Cole

*Peggy Cole*

Regulatory/Compliance Administrator

Print or Type Name

Signature

Title

Date

## DISTRICT I

1825 N. French Dr., Hobbs, NM 88240

## DISTRICT II

811 South First St., Artesia, NM 88210

## DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410

## DISTRICT IV

2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

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

## APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A  
Revised March 17, 1999

## APPROVAL PROCESS:

☒ Administrative ☐ Hearing

## EXISTING WELLBORE

☒ YES ☐ NO

BURLINGTON RESOURCES OIL &amp; GAS COMPANY

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 28-6 Unit

#92

G, Sec. 2, T27N, R6W

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. 30-039-07190 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	Blanco Picured Cliffs South - 72439		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3238'-3304'		5396'-5522'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	a. 213 psia (Current)	a.	a. 358 psia
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	b. 1083 psia (Original)	b.	b. 1240
6. Oil Gravity (EAPI) or Gas BTU Content	BTU 1137		BTU 1236
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: 2/00 Rates: 18 mcf/d 0.0 bopd	Date: Rates:	Date: 2/00 Rates: 50 mcf/d 0.0 bopd
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)			
8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)	Oil: 50 % Gas: 26 %	Oil: % Gas: %	Oil: 50 % Gas: 74 %

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 ☒ No11. 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 ☐ No13. 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-10696

## 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.
- \* 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 Operations Engineer DATE 4/12/00TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

# Well Location and Acreage Dedication Plat

Section A.

Date **APRIL 23, 1959**

Operator **EL PASO NATURAL GAS COMPANY**

Lease **SAN JUAN 28-6 UNIT**

**E-290-3**

Well No. **92(PM)** Unit Letter **G** Section **2**

Township **27-N** Range **6-W** NMPM

Located **1790** Feet From **NORTH** Line, **1550**

Feet From **EAST** Line

County **RIO ARRIBA** G. L. Elevation **6462**

Dedicated Acreage **160<sup>32</sup> & 320<sup>32</sup>**

Acres

Name of Producing Formation **PICTURED CLIFF AND MESA VERDE** Pool **SO. BLANCO PG & BLANCO MV**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?

Yes ☐ No ☒

2. If the answer to question one is "no", have the interests of all the owners been consolidated by community agreement or otherwise? Yes ☒ No ☐ If answer is "yes", Type of Consolidation,

**Unit Agreement**

3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

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**

(Operator)

**Original Signed C. D. COX**

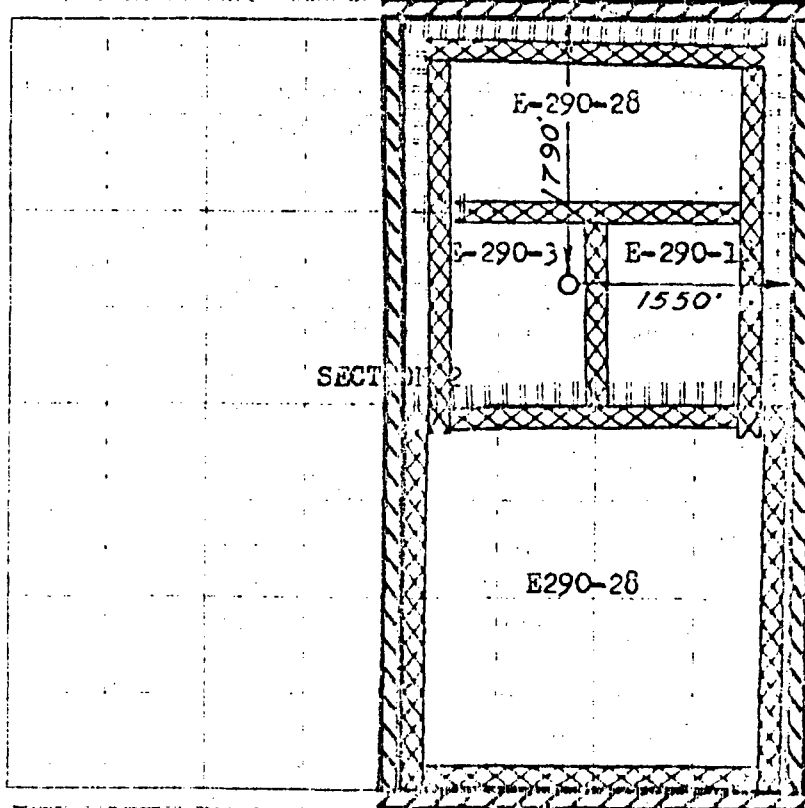
(Representative)

**Box 997**

(Address)

**Farmington, New Mexico**

Note: All distances must be



Scale 1 inch equals 1 mile

This is to certify that the above plat was prepared from field notes of actual survey, made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

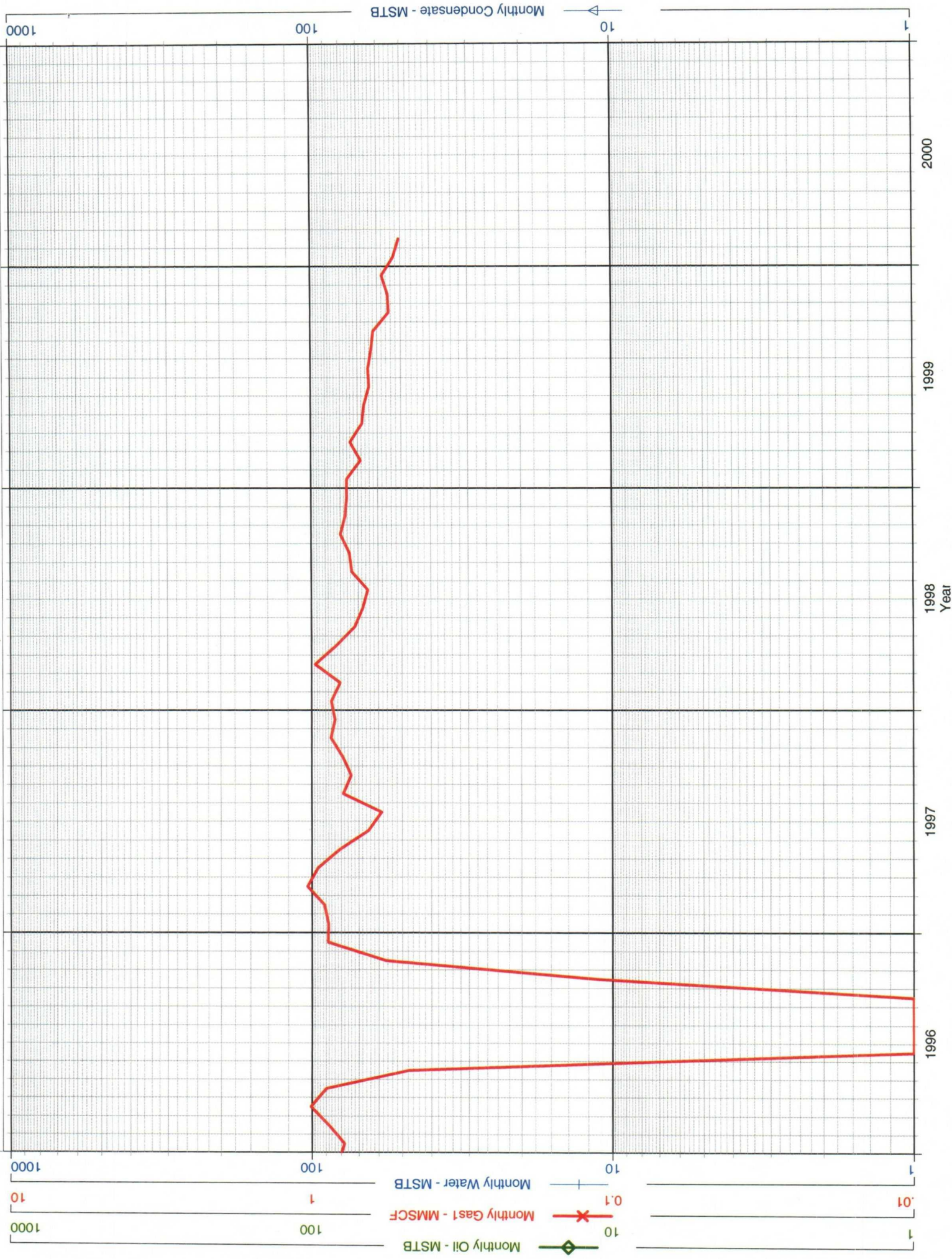
(Signed)

Farmington, New Mexico

Date surveyed **DECEMBER 21, 1958**

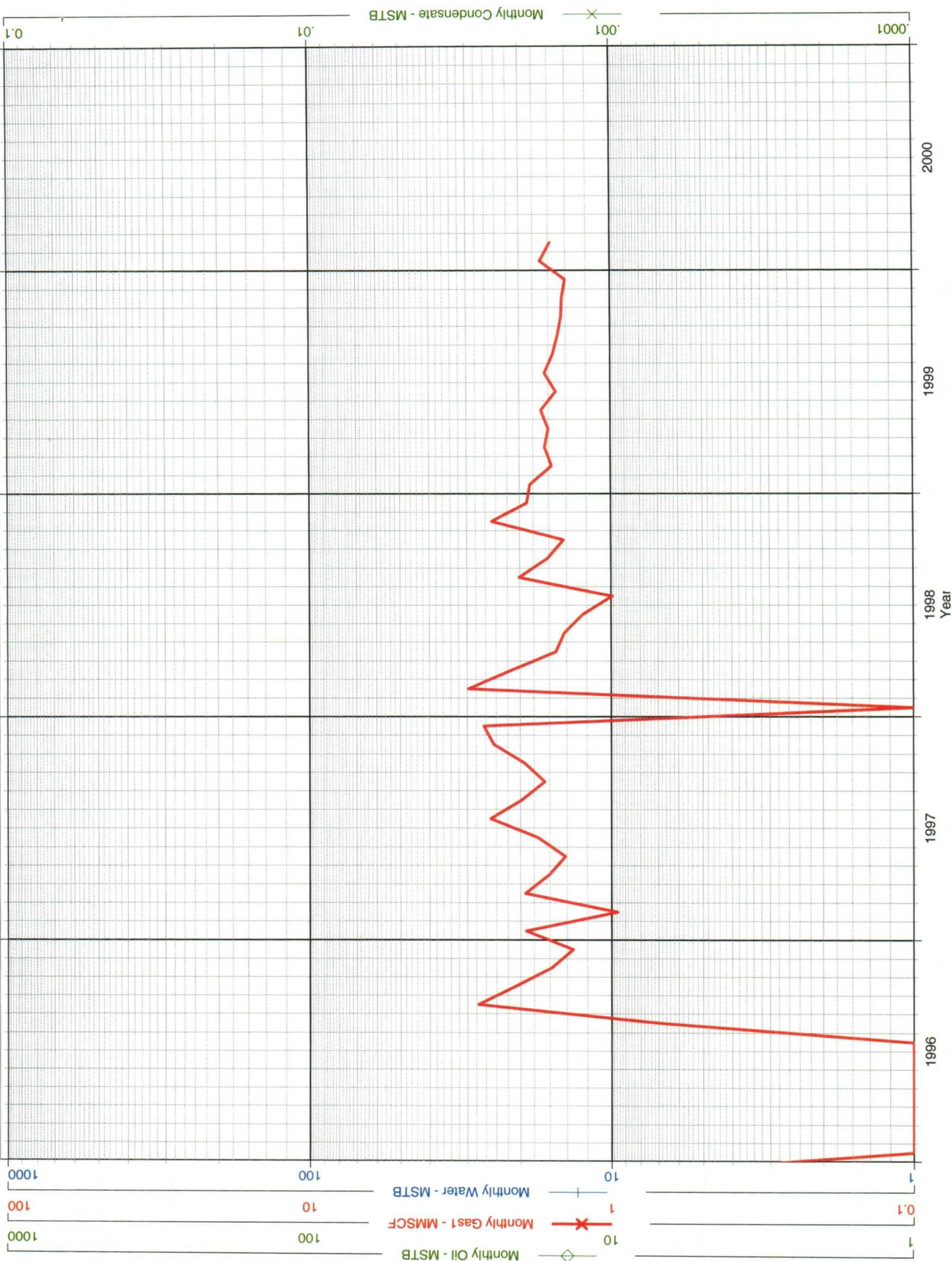
*David A. Kilmer*  
Registered Professional Engineer and/or Land Surveyor

SAN JUAN 28-6 UNIT 92 5344501 (41939781363.8618) Data: Jun. 1959-Feb. 2000





SAN JUAN 28-6 UNIT 92 5344502 (73113188896.8886) Data: Jan. 1959-Feb. 2000



**San Juan 28-6 Unit #92  
Production Allocation**

**Gas**

*Pictured Cliffs 3 month average	18 Mcfd	26%
*Mesaverde 3 month average	51 Mcfd	74%
Total:	<u>69</u>	<u>100.0%</u>

**Oil**

*Pictured Cliffs 3 month average	0.0 Bopd	50%
*Mesaverde 3 month average	0.0 Bopd	50%
Total:	<u>0</u>	

\*Allocation Formula Basis: The fixed percentages are based on 3 month averages (12/99 - 02/00)

**San Juan 28-6 Unit 92**  
**Bottom Hole Pressures**  
**Flowing and Static BHP**  
**Cullender and Smith Method**

Version 1.0 3/13/94

<b>Gallup</b>		<b>Dakota</b>	
<b><u>PC-Current</u></b>		<b><u>MV-Current</u></b>	
GAS GRAVITY	0.635	GAS GRAVITY	0.71
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.99	%N2	0.77
%CO2	0.37	%CO2	0.8
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	7.625
DEPTH (FT)	3271	DEPTH (FT)	5459
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	115	BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	198	SURFACE PRESSURE (PSIA)	312
BOTTOMHOLE PRESSURE (PSIA)	213.1	BOTTOMHOLE PRESSURE (PSIA)	357.6
<b><u>PC-Original</u></b>		<b><u>MV-Original</u></b>	
GAS GRAVITY	0.642	GAS GRAVITY	0.715
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.25	%N2	0.27
%CO2	0.48	%CO2	0.8
%H2S	0	%H2S	0
DIAMETER (IN)	1.25	DIAMETER (IN)	7.625
DEPTH (FT)	3271	DEPTH (FT)	5459
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	115	BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	995	SURFACE PRESSURE (PSIA)	1057
BOTTOMHOLE PRESSURE (PSIA)	1083.1	BOTTOMHOLE PRESSURE (PSIA)	1239.5

# Gas Meter Vol. History (Act.)

Friday, January 01, 1999 Through Sunday, April 30, 2000

Select By : Gas Meters

Pressure Base : 15.025

Page No : 1

Sort By :

Units :

Report Number : R\_040

Print Date :

Rounded (yn) : No

04/06/2000, 8:02:57 PM

Meter	Volume Date	Ticket #	Volume	Heat Value	Period		Disp.	Prod.	Purchaser	Gatherer
SAN JUAN 28-6 UNIT Pictured Cl. 45	01/01/1999	6100000087	762.72	899.66	01/01/1999	01/31/1999	20	100		WILLIAMS FIELD SERV
	02/01/1999	22000000626	684.30	807.86	02/01/1999	02/28/1999	20	100		WILLIAMS FIELD SERV
	03/01/1999	03000003339	740.18	873.14	03/01/1999	03/31/1999	20	100		WILLIAMS FIELD SERV
	04/01/1999	8800001560	676.45	800.72	04/01/1999	04/30/1999	20	100		WILLIAMS FIELD SERV
	05/01/1999	7800001660	665.67	787.46	05/01/1999	05/31/1999	20	100		WILLIAMS FIELD SERV
	06/01/1999	7700000448	639.20	755.84	06/01/1999	06/30/1999	20	100		WILLIAMS FIELD SERV
	07/01/1999	70000006066	644.10	761.96	07/01/1999	07/31/1999	20	100		WILLIAMS FIELD SERV
	08/01/1999	9700000175	628.41	743.60	08/01/1999	08/31/1999	20	100		WILLIAMS FIELD SERV
	09/01/1999	02000000052	618.61	731.36	09/01/1999	09/30/1999	20	100		WILLIAMS FIELD SERV
	10/01/1999	7500003944	548.02	648.74	10/01/1999	10/31/1999	20	100		WILLIAMS FIELD SERV
	11/01/1999	4400003068	551.95	652.82	11/01/1999	11/30/1999	20	100		WILLIAMS FIELD SERV
	12/01/1999	5800000679	577.44	683.42	12/01/1999	12/31/1999	20	100		WILLIAMS FIELD SERV
	Totals -- 1999		7,737.05	9,146.58						
	01/01/2000	7400000388	529.40	626.30	01/01/2000	01/31/2000	20	100		WILLIAMS FIELD SERV
	02/01/2000	7600000553	505.87	598.76	02/01/2000	02/29/2000	20	100		WILLIAMS FIELD SERV
	Totals -- 2000		1,035.27	1,225.05						
Totals -- SAN JUAN 28-6 UNIT 92	72456		8,772.32	10,371.64						
SAN JUAN 28-6 UNIT Mesa Verde	01/01/1999	6100000067	1,783.29	2,301.18	01/01/1999	01/31/1999	20	100		WILLIAMS FIELD SERV
	02/01/1999	2200000627	1,506.82	1,944.17	02/01/1999	02/28/1999	20	100		WILLIAMS FIELD SERV
	03/01/1999	0300003337	1,587.21	2,048.21	03/01/1999	03/31/1999	20	100		WILLIAMS FIELD SERV
	04/01/1999	8800001559	1,543.10	1,983.95	04/01/1999	04/30/1999	20	100		WILLIAMS FIELD SERV
	05/01/1999	7800001659	1,634.27	2,101.26	05/01/1999	05/31/1999	20	100		WILLIAMS FIELD SERV
	06/01/1999	7700000447	1,452.90	1,868.69	06/01/1999	06/30/1999	20	100		WILLIAMS FIELD SERV
	07/01/1999	7000000607	1,585.25	2,030.03	07/01/1999	07/31/1999	20	100		WILLIAMS FIELD SERV
	08/01/1999	9700000174	1,484.27	1,908.47	08/01/1999	08/31/1999	20	100		WILLIAMS FIELD SERV
	09/01/1999	0200000051	1,431.33	1,841.15	09/01/1999	09/30/1999	20	100		WILLIAMS FIELD SERV
	10/01/1999	7500003943	1,387.22	1,784.03	10/01/1999	10/31/1999	20	100		WILLIAMS FIELD SERV
	11/01/1999	4400003069	1,379.38	1,773.83	11/01/1999	11/30/1999	20	100		WILLIAMS FIELD SERV
	12/01/1999	5800000678	1,350.94	1,737.11	12/01/1999	12/31/1999	20	100		WILLIAMS FIELD SERV
	Totals -- 1999		18,125.99	23,331.08						
	01/01/2000	7400000387	1,638.19	2,106.36	01/01/2000	01/31/2000	20	100		WILLIAMS FIELD SERV
	02/01/2000	7600000594	1,516.63	1,950.29	02/01/2000	02/29/2000	20	100		WILLIAMS FIELD SERV
	Totals -- 2000		3,154.82	4,056.65						
Totals -- SAN JUAN 28-6 UNIT 92	72457		21,280.81	27,387.73						
Report Totals			30,053.12	37,759.37						



**San Juan 28-6 Unit #92**  
**5344501/5344502**  
**Pictured Cliffs/Mesaverde**

**PICTURED CLIFFS**

PRESSURE DATA		
Date	Gas Cum	Press
06/30/1959	0	995
10/10/1998	486448	344

**MESAVERDE**

PRESSURE DATA		
Date	Gas Cum	SIWHP
06/23/1959	0	1057
10/10/1998	822022	409

**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:

- 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:

- 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.