

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

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2738

### 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

☒ 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] ☒ 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

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

DISTRICT I  
1625 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

Form C-107-A  
Revised March 17, 1999  
APPROVAL PROCESS:  
\_X\_ Administrative \_\_\_ Hearing  
EXISTING WELLBORE  
\_X\_ YES \_\_\_ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY PO Box 4289, Farmington, NM 87499  
Operator Address  
San Juan 28-6 Unit #94A P, Sec. 36, T28N, 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. \_ 30-039-23053 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 Picured Cliffs - 72439		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	3147'-3213'		4837'-5734'
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: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. 224 psia (Current)	a.	a. 396 psia
	b. 1099 psia (Original)	b.	b. 923 psia
6. Oil Gravity (EAPI) or Gas BTU Content	BTU 1145		BTU 1210
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)  * If Shut-In, give date 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  * If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Yes		No
	Date: Rates:	Date: Rates:	Date: Rates:
	Date: 2/00 Rates: 50 mcf/d 0.0 bopd	Date: Rates:	Date: 2/00 Rates: 251 mcf/d 0.0 bopd
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: 0 % Gas: 23 %	Oil: % Gas: %	Oil: 100 % Gas: 77 %

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 \_\_\_ X No  
If not, have all working, overriding, and royalty interests been notified by certified mail? \_\_\_ Yes \_\_\_ X No
11. 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)
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 \_\_\_ No X (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-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 4/13/00  
TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700 nco

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
OIL AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102  
Revised 10-

All distances must be from the outer boundaries of the Section.

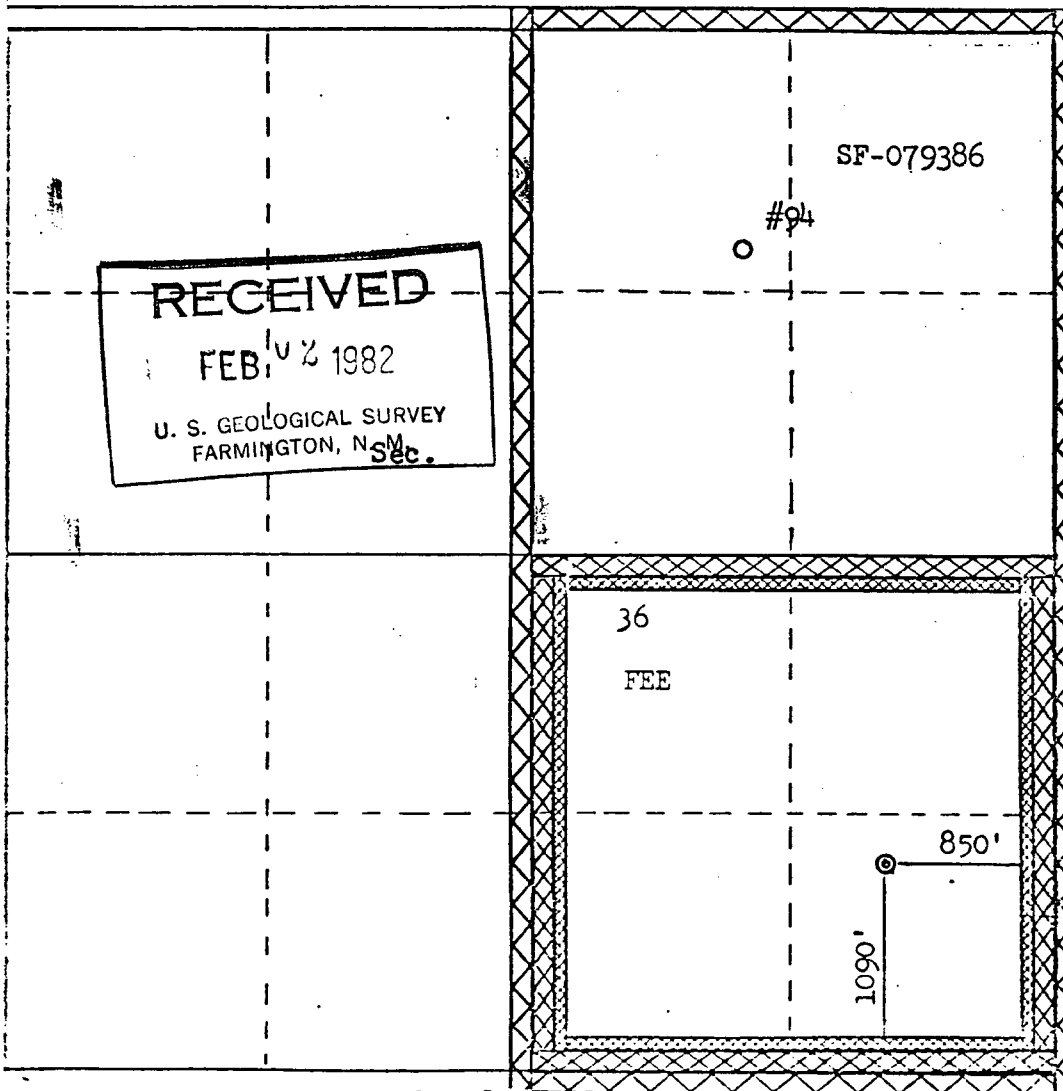
Operator <b>EL PASO NATURAL GAS COMPANY</b>			Lease <b>SAN JUAN 28-6 UNIT (SF-079386)</b>		Well No. <b>94A</b>
Unit Letter <b>P</b>	Section <b>36</b>	Township <b>28N</b>	Range <b>6W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well:					
1090 feet from the South line and		850 feet from the East line			
Ground Level Elev. <b>6360</b>	Producing Formation <b>PICTURED CLIFFS - MESA VERDE</b>	Pool <b>SO. BLANCO PICTURED CLIFFS BLANCO MESA VERDE</b>	Dedicated Acreage: <b>160.23 &amp; 320.23 Acres</b>		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes   ☐ No   If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission. PLAT REISSUED DUE TO RELOCATION BY EXPLORATION COMPANY 10-26-81



Scale: 1"=1000'

## CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*A. G. Briscoe*

Name  
Drilling Clerk

Position  
El Paso Natural Gas Company

Company  
January 28, 1982

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

September 11, 1981

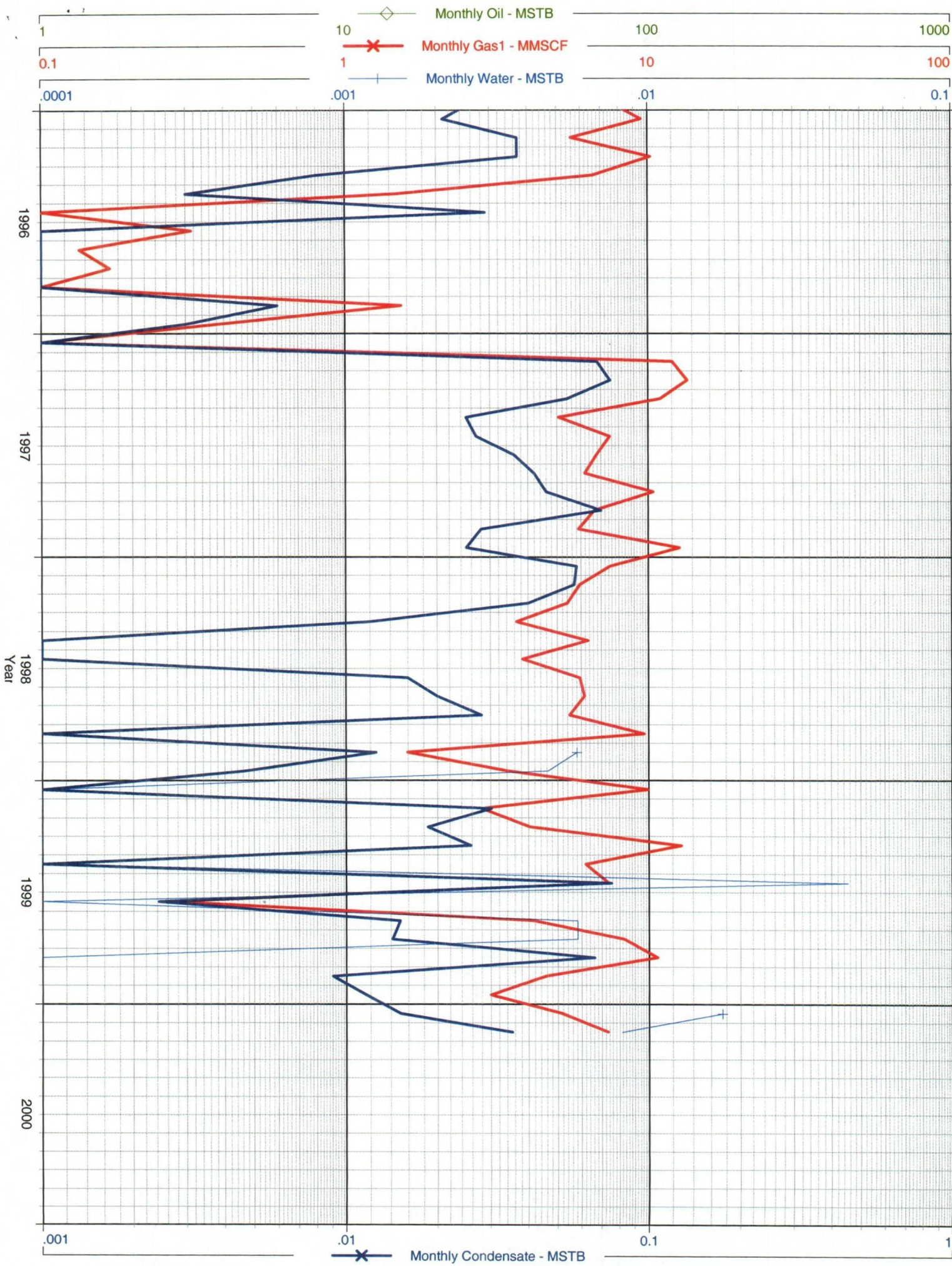
Registered Professional Engineer  
and Land Surveyor

*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

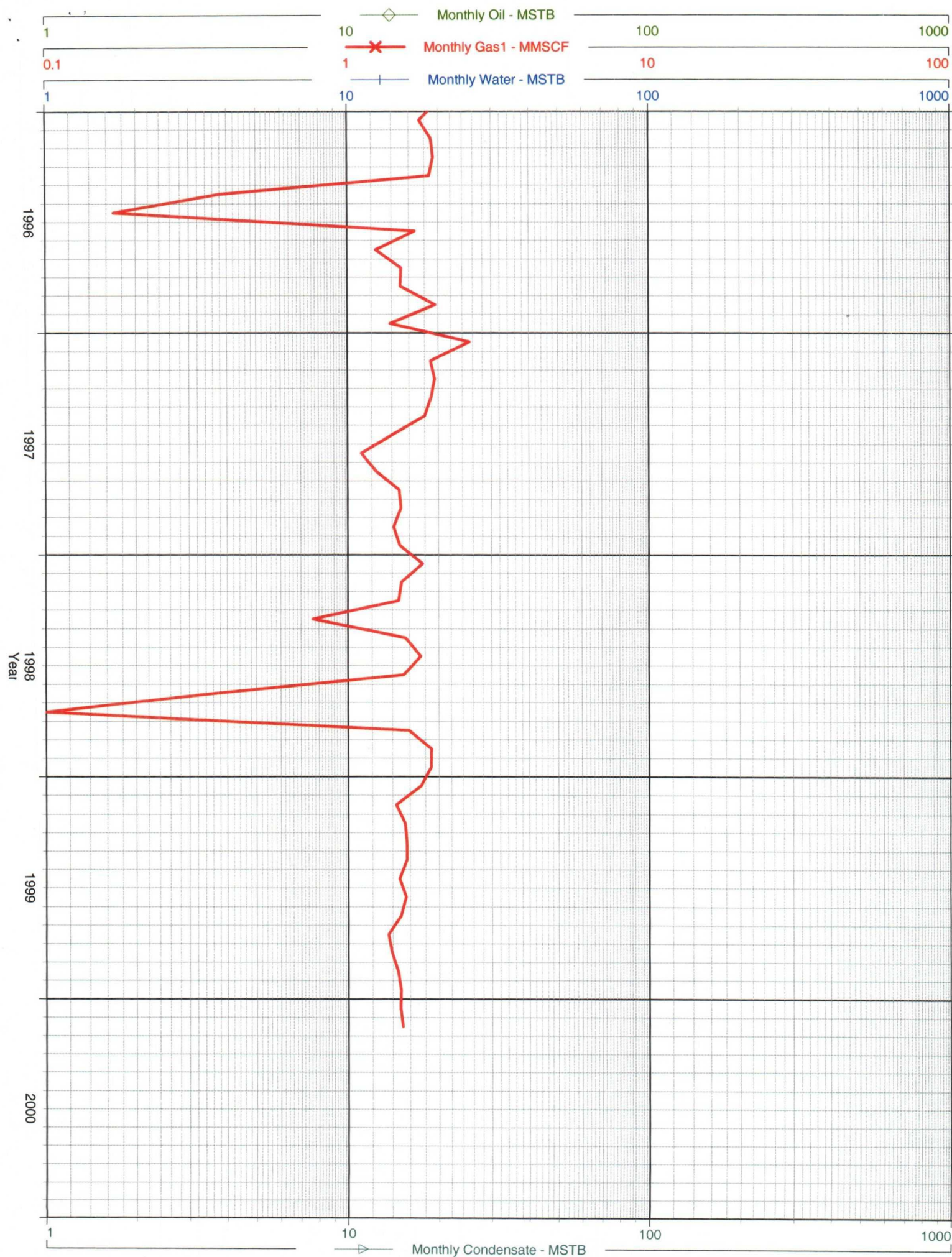
Certificate No.

3250









SAN JUAN 28-6 UNIT 94A 5344801 (42197294130.7485) Data: Nov.1982-Feb.2000

**San Juan 28-6 Unit #94A  
Production Allocation**

**Gas**

*Pictured Cliffs Cumulative Production:	322 MMcf	23%
*Mesaverde Cumulative Production:	1,060 MMcf	77%
Total:	<u>1,382</u>	<u>100.0%</u>

**Oil**

*Pictured Cliffs Cumulative Production:	0 BBls	0%
*Mesaverde Cumulative Production:	5,370 BBls	100%
Total:	<u>5,370</u>	

\*Allocation Formula Basis: The fixed percentages are based on cumulative production from 4/83 - 2/00.

**San Juan 28-6 Unit 94A**  
**Bottom Hole Pressures**  
**Flowing and Static BHP**  
**Cullender and Smith Method**

Version 1.0 3/13/94

<b>Pictured Cliffs</b>		<b>Mesaverde</b>	
<b><u>PC-Current</u></b>		<b><u>MV-Current</u></b>	
GAS GRAVITY	0.648	GAS GRAVITY	0.692
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.25	%N2	0.17
%CO2	0.32	%CO2	1.08
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	2.375
DEPTH (FT)	3180	DEPTH (FT)	5285.5
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)	208	SURFACE PRESSURE (PSIA)	348
BOTTOMHOLE PRESSURE (PSIA)	223.8	BOTTOMHOLE PRESSURE (PSIA)	396.0
<b><u>PC-Original</u></b>		<b><u>MV-Original</u></b>	
GAS GRAVITY	0.651	GAS GRAVITY	0.694
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.78	%N2	0.52
%CO2	0.1	%CO2	0.8
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	2.375
DEPTH (FT)	3180	DEPTH (FT)	5285.5
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)	1010	SURFACE PRESSURE (PSIA)	802
BOTTOMHOLE PRESSURE (PSIA)	1099.0	BOTTOMHOLE PRESSURE (PSIA)	923.2

**San Juan 28-6 Unit #94A**  
**5344801/5344802**  
**Pictured Cliffs/Mesaverde**

**PICTURED CLIFFS**

PRESSURE DATA		
Date	Gas Cum	Press
11/02/1982	0	1010
12/17/1999	319733	208

**MESAVERDE**

PRESSURE DATA		
Date	Gas Cum	SIWHP
10/26/1982	0	802
12/17/1999	1047080	348



# 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

Sort By :

Rounded (y/n) : No

Print Date : 04/06/2000, 8:31:08 PM

Meter	Volume Date	Ticket #	Volume	Heat Value	Period		Disp.	Prod.	Purchaser	Gatherer
					Start	End				
SAN JUAN 28-6 UNIT 94A 85722 MESAVEDE	01/01/1999	6100001957	9,919.34	12,373.95	01/01/1999	01/31/1999	20	100		WILLIAMS FIELD SERV
	02/01/1999	2200001607	2,736.20	3,413.01	02/01/1999	02/28/1999	20	100		WILLIAMS FIELD SERV
	03/01/1999	0300000718	3,969.50	4,952.23	03/01/1999	03/31/1999	20	100		WILLIAMS FIELD SERV
	04/01/1999	8800000186	12,715.35	16,008.31	04/01/1999	04/30/1999	20	100		WILLIAMS FIELD SERV
	05/01/1999	7800000835	6,123.37	7,709.37	05/01/1999	05/31/1999	20	100		WILLIAMS FIELD SERV
	06/01/1999	7700001111	7,302.75	9,193.50	06/01/1999	06/30/1999	20	100		WILLIAMS FIELD SERV
	07/01/1999	7000000131	199.99	251.95	07/01/1999	07/31/1999	20	100		WILLIAMS FIELD SERV
	08/01/1999	9700001684	4,080.28	5,136.86	08/01/1999	08/31/1999	20	100		WILLIAMS FIELD SERV
	09/01/1999	0200000932	8,217.43	10,345.12	09/01/1999	09/30/1999	20	100		WILLIAMS FIELD SERV
	10/01/1999	7500001193	10,623.25	13,374.60	10/01/1999	10/31/1999	20	100		WILLIAMS FIELD SERV
	11/01/1999	4400002996	4,510.66	5,678.49	11/01/1999	11/30/1999	20	100		WILLIAMS FIELD SERV
	12/01/1999	5800002469	2,942.08	3,703.72	12/01/1999	12/31/1999	20	100		WILLIAMS FIELD SERV
	Totals -- 1999		73,340.20	92,141.09						
	01/01/2000	7400000394	5,101.82	6,423.11	01/01/2000	01/31/2000	20	100		WILLIAMS FIELD SERV
SAN JUAN 28-6 UNIT 94A 85723 PICTURE CLIFFS	02/01/2000	7600000801	7,269.41	9,151.68	02/01/2000	02/29/2000	20	100		WILLIAMS FIELD SERV
	Totals -- 2000		12,371.24	15,574.79						
	01/01/1999	6100001931	1,675.45	2,001.29	01/01/1999	01/31/1999	20	100		WILLIAMS FIELD SERV
	02/01/1999	2200001598	1,381.34	1,650.40	02/01/1999	02/28/1999	20	100		WILLIAMS FIELD SERV
	03/01/1999	0300000677	1,473.49	1,759.55	03/01/1999	03/31/1999	20	100		WILLIAMS FIELD SERV
	04/30/1999	00000	712.73	843.56	04/01/1999	04/30/1999	20	170	UNKNOWN	WILLIAMS FIELD SERV
	04/01/1999	8800000193	785.27	935.36	04/01/1999	04/30/1999	20	100		WILLIAMS FIELD SERV
	Totals -- 04/1999		1,498.00	1,778.93						
	05/01/1999	7800000828	1,495.06	1,780.97	05/01/1999	05/31/1999	20	100		WILLIAMS FIELD SERV
	06/01/1999	7700001080	1,414.67	1,685.08	06/01/1999	06/30/1999	20	100		WILLIAMS FIELD SERV
	07/01/1999	7000000124	1,483.29	1,766.69	07/01/1999	07/31/1999	20	100		WILLIAMS FIELD SERV
	08/01/1999	9700001685	1,425.45	1,698.35	08/01/1999	08/31/1999	20	100		WILLIAMS FIELD SERV
	09/01/1999	0200000893	1,293.10	1,540.24	09/01/1999	09/30/1999	20	100		WILLIAMS FIELD SERV
	10/01/1999	7500001192	1,326.44	1,580.02	10/01/1999	10/31/1999	20	100		WILLIAMS FIELD SERV
SAN JUAN 28-6 UNIT 94A 85723	11/01/1999	4400003005	1,394.08	1,660.60	11/01/1999	11/30/1999	20	100		WILLIAMS FIELD SERV
	12/01/1999	5800002476	1,434.28	1,708.55	12/01/1999	12/31/1999	20	100		WILLIAMS FIELD SERV
	Totals -- 1999		17,294.64	20,610.67						
	01/01/2000	7400000588	1,417.61	1,685.16	01/01/2000	01/31/2000	20	100		WILLIAMS FIELD SERV
	02/01/2000	7600000791	1,449.96	1,726.91	02/01/2000	02/29/2000	20	100		WILLIAMS FIELD SERV
	Totals -- 2000		2,867.57	3,416.07						
	Totals -- 94A 85723		20,162.21	24,026.74						
Report Totals			105,873.65	131,742.63						

**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.