

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1510

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]

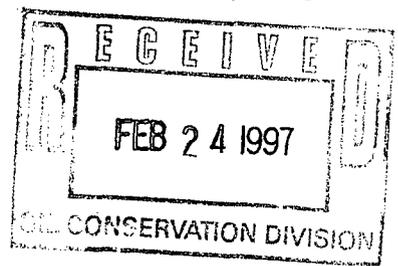
[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [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 Bradfield
 Print or Type Name *Peggy Bradfield*
 Signature

Regulatory/Compliance Administrator
 Title

2-20-97
 Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

February 20, 1997

SENT FEDERAL EXPRESS

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

Re: Sunray D #2R
1065'FNL, 1000'FEL Section 21, T-30-N, R-10-W, San Juan County, NM
API #30-045-23862

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Pictured Cliffs and Blanco Mesa Verde in the subject well. This well was originally drilled as a Pictured Cliffs/Mesa Verde dual; it is intended to commingle.

To comply with the New Mexico Oil Conservation Division rules, Burlington Resources Oil & Gas 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 Pictured Cliffs and Mesa Verde for at least one year;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Pictured Cliffs

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,



Peggy Bradfield
Regulatory/Compliance Administrator
encs.

xc: Bureau of Land Management

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 :

Administrative Hearing

EXISTING WELLBORE

YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator **Sunray D** Address **2R A 21-30-10 San Juan**

Lease Well No. Unit Ltr. - Sec - Twp - Rge County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7566 API NO. 30-045-23862 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 Pictured Cliffs - 72359		Blanco Mesaverde - 72319
2. Top and Bottom of Pay Section (Perforations)	2964-3066'		5142-5553'
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 Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 346 psi (see attachment)	a.	a. 381 psi (see attachment)
	(Original) b. 926 psi (see attachment)	b.	b. 617 psi (see attachment)
6. Oil Gravity (^o API) or Gas BTU Content	BTU 1159		BTU 1238
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 Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: n/a Rates:	Date: Rates:	Date: n/a Rates:
	Date: 12-96 Rates: 17 mcf/d; 0 bopd	Date: Rates:	Date: 12-96 Rates: 79 mcf/d; 0.8 bopd
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: % will be supplied upon completion	Oil: % Gas: %	Oil: % Gas: % will be supplied upon completion

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 No
Have all offset operators been given written notice of the proposed downhole commingling? Yes No
11. 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 No
13. 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). _____
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 Mary Ellen Lutey TITLE Production Engineer DATE 2/17/97

TYPE OR PRINT NAME Mary Ellen Lutey TELEPHONE NO. (505) 326-9700

OIL CONSERVATION DIVISION

1979

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2048
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

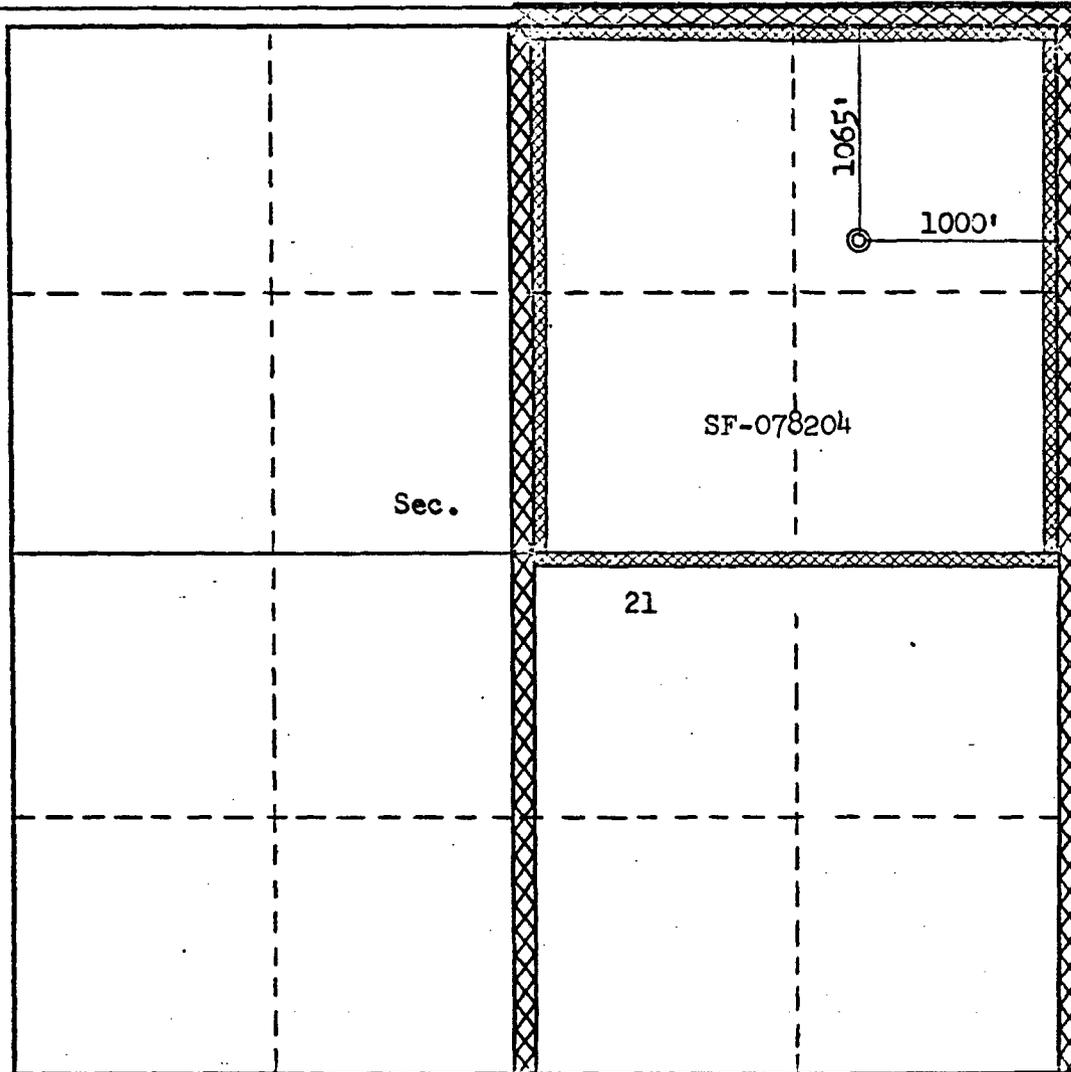
Operator EL PASO NATURAL GAS COMPANY		Lease SUNRAY "D" (SF-078204)		Well No. 2R
Unit Letter A	Section 21	Township 30N	Range 10W	County San Juan
Actual Footage Location of Well: 1065 feet from the North line and 1000 feet from the East line				
Ground Level Elev. 6343	Producing Formation MESA VERDE PICTURED CLIFFS	Pool BLANCO MESA VERDE BLANCO PICTURED CLIFFS EXT.	Dedicated Acreage: 165.04 & 326.44 Acres	

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 _____

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.



CERTIFICATION

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

A. G. Busco
Drilling Clerk

El Paso Natural Gas Co.

September 20, 1979

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.

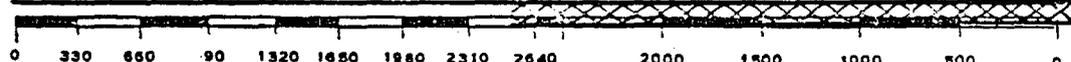
Date Surveyed

July 7, 1979

Registered Professional Engineer and/or Land Surveyor

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

Certificate No. 3950

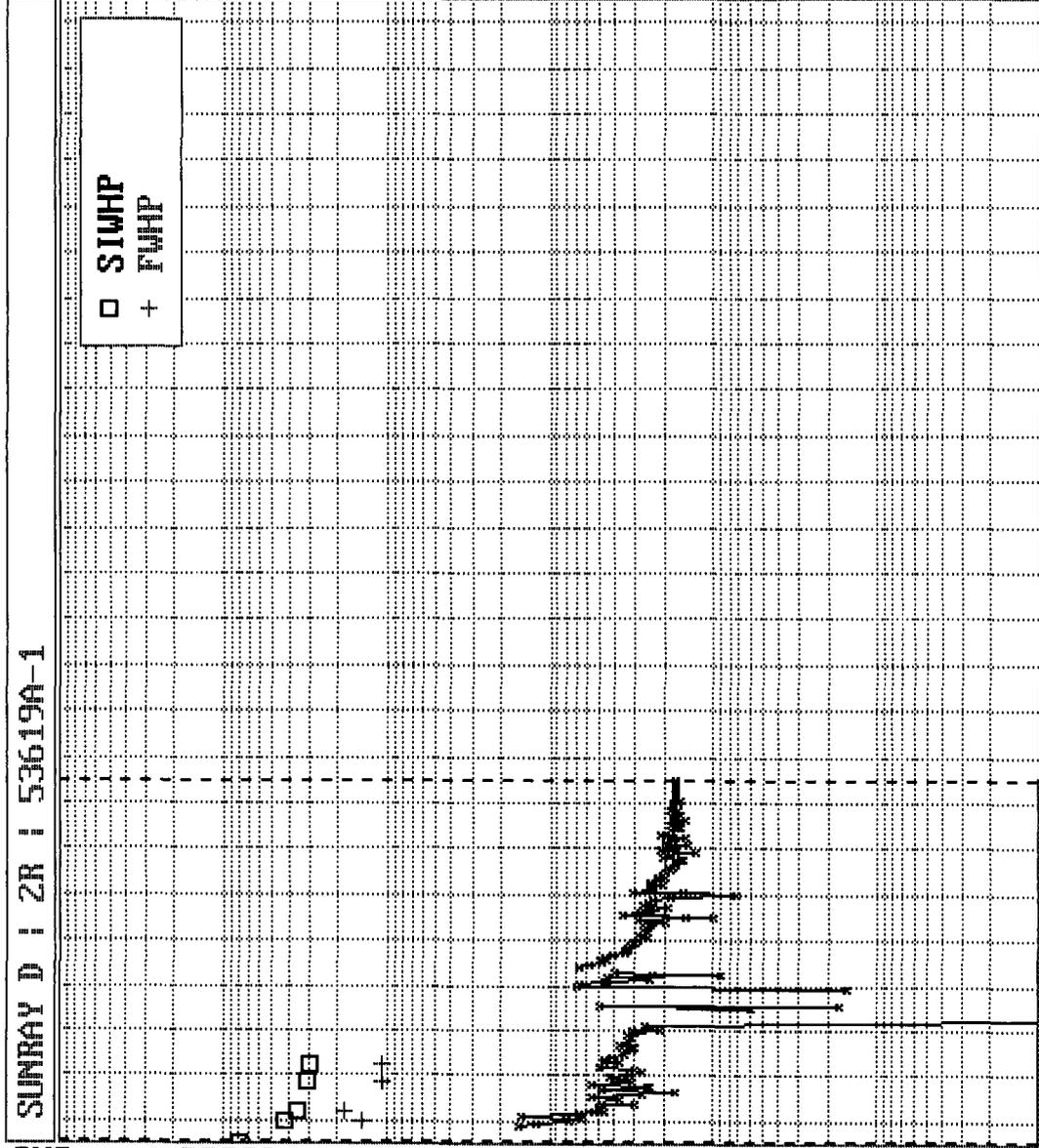


PC

Prop 7117 *

- *GAS Mcf/d
- *OIL Bbl/d
- *OIL/GAS
- *WATER Bbls/d

RateTime
 Semi Log



* WATER 10000
 * OIL/GAS 1000
 * OIL 1000
 * GAS 10000

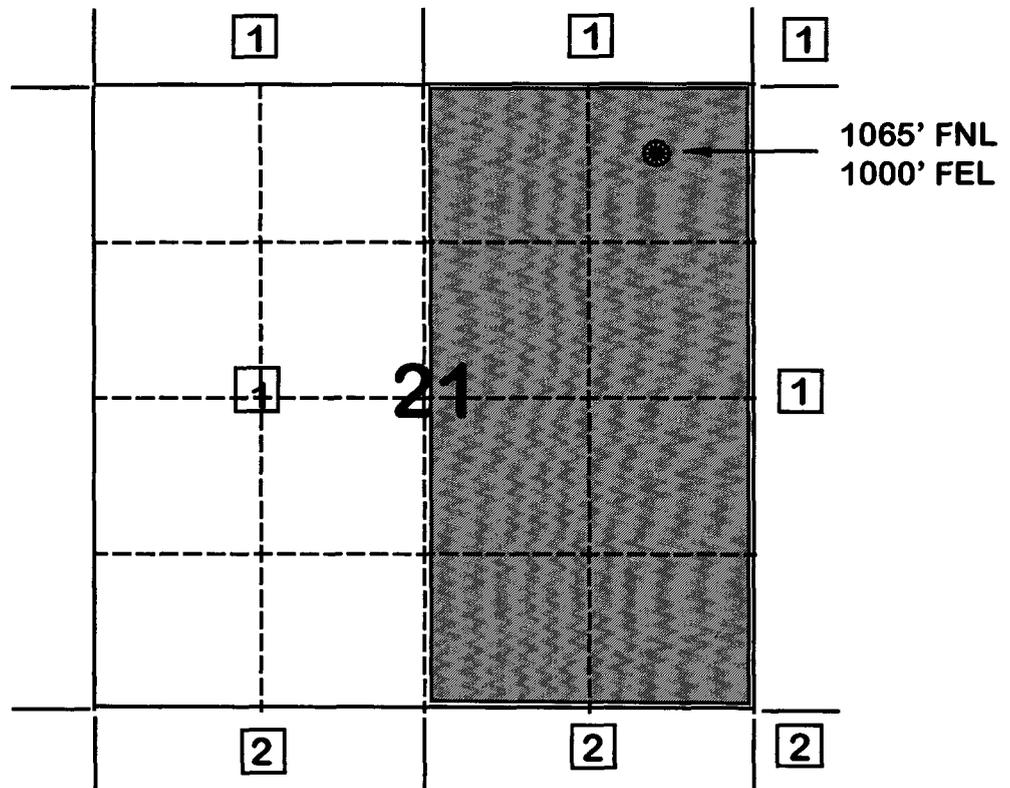
Major = GAS

BURLINGTON RESOURCES OIL AND GAS COMPANY

**Sunray D #2R
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde (E/2)/Pictured Cliffs (NE/4) Formations Commingle Well

Township 30 North, Range 10 West



- 1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.
- 2) Amoco Production Company
Attn: Bruce Zimney
P.O. Box 800
Denver, CO 80201

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 10.3/13/94

GAS GRAVITY	<u>0.72</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.34</u>
%CO2	<u>0.78</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>330</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>381.0</u>

SUNRAY D 2R MESAVERDE - (CURRENT)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.72</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.34</u>
%CO2	<u>0.78</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>2.4</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>150</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>531</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>616.5</u>

SUNRAY D 2R MESAVERDE - (ORIGINAL)

MV

Organize Data ScreenGraph Economics Report Plot Utility Quit
Browsing: SUNRAY D | 2R | 53619B-1 Property No.: 5025
Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/11/103224
Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>
	Mcf	Psi
03/11/81	0	531.0
03/25/81	0	532.0
08/10/81	23647	508.0
05/13/82	63393	481.0
09/15/83	93739	464.0
06/05/84	113164	441.0
08/21/86	155233	390.0
04/08/91	243033	479.0
05/20/91	245710	467.0
04/15/93	298520	318.0
04/20/93	295843	330.0

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table
F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.66</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.35</u>
%CO2	<u>0.35</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>1.25</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>110</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>302</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>345.8</u>

SUNRAY D 2R PICTURED CLIFFS - (ORIGINAL)

**FLOWING AND STATIC BHP
CULLENDER AND SMITH METHOD**

VERSION 1.0 3/13/94

GAS GRAVITY	<u>0.66</u>
COND. OR MISC. (C/M)	<u>C</u>
%N2	<u>0.35</u>
%CO2	<u>0.35</u>
%H2S	<u>0</u>
DIAMETER (IN)	<u>1.25</u>
DEPTH (FT)	<u>5654</u>
SURFACE TEMPERATURE (DEG F)	<u>60</u>
BOTTOMHOLE TEMPERATURE (DEG F)	<u>110</u>
FLOWRATE (MCFPD)	<u>0</u>
SURFACE PRESSURE (PSIA)	<u>798</u>
BOTTOMHOLE PRESSURE (PSIA)	<u>925.9</u>

SUNRAY D 2R PICTURED CLIFFS - (ORIGINAL)

PC

Organize Data ScreenGraph Economics Report Plot Utility Quit
Browsing: SUNRAY D | 2R | 53619A-1 Property No.: 7117
Table(T): TEST/M,P,H,E,T,Z,C,A,O,D,N,1,2,3,B,U,S Rec: 1/5/103224
Item: 2/3/33 Name: DATE Type: Date Len: 8/27/203

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>
	<u>Mcf</u>	<u>Psi</u>
01/01/80	0	798.0
12/14/81	10729	428.0
05/13/82	23348	351.0
09/15/83	40059	307.0
06/05/84	47852	302.0

F1=Help F3=PrvPro F5=PrvTbl F7=Calcu F9=Utils Alt+TableLtr=Change Table
F2=Jump F4=NxtPro F6=NxtTbl F8=Print F10=Exit Shift+<- ->=Fast Tbl R & L

FARMINGTON

1996 MONTHLY PRODUCTION FOR 53619A

PHS030M1

SUNRAY D 2R

BLANCO PICTURED CLIFFS (GAS) FIELD

PICTURED CLIFFS ZONE

MO	T	S	DAYS		OIL		GAS		BTU	PRESS	WATER PROD	C	
			ON	PC	PROD	GRV	PC	PROD					ON
1	2	F					01	536	31	1138	15.025		
2	2	F					01	481	29	1138	15.025		
3	2	F					01	540	31	1147	15.025		
4	2	F					01	241	30	1147	15.025		
5	2	F					01	3	31		15.025		
6	2	F					01	803	18	1147	15.025		
7	2	F					01	354	31	1146	15.025		
8	2	F					01	591	31	1146	15.025		
9	2	F					01	506	18	1146	15.025		
10	2	F					01	617	28	1146	15.025		
11	2	F					01	557	30	1146	15.025		
12	2	F					01	17 MCF	528	31	1146	15.025	

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

00/00/00 00:00:00:0

PRS 02/05/97

B MY JOB

NUM LU #27

FARMINGTON

1996 MONTHLY PRODUCTION FOR 53619B

PHS030M1

SUNRAY D 2R

BLANCO MESAVERDE (PRORATED GAS FIELD)

MESAVERDE ZONE

MO	T	S	DAYS		OIL		GAS		BTU	PRESS	WATER PROD	C	
			ON	PC	PROD	GRV	PC	PROD					ON
1	2	F	31	02		13	01	2735	31	1216	15.025		
2	2	F	29	02		14 51.0	01	2139	29	1216	15.025		
3	2	F	31	02		7	01	2401	31	1216	15.025		
4	2	F	30	02		2	01	2808	30	1250	15.025		
5	2	F	31	02			01	1826	31	1250	15.025		
6	2	F	27	02		3	01	2267	27	1250	15.025		
7	2	F	31	02		1	01	2203	31	1250	15.025		
8	2	F	31	02			01	1568	31	1250	15.025		
9	2	F	19	02			01	1006	19	1226	15.025		
10	2	F	26	02		4	01	2021	26	1226	15.025		
11	2	F	30	02		18	01	2284	30	1226	15.025		
12	2	F	31	02	0.9 BOPD	24	01	79 MCF	2444	31	1226	15.025	

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

00/00/00 00:00:00:0

PRS 02/05/97

B MY JOB

NUM LU #27

