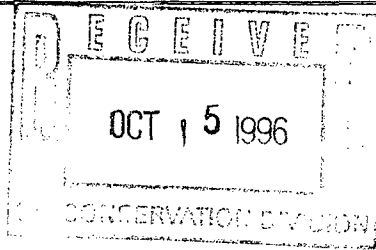


DHC 11/4/96

1396

BURLINGTON RESOURCES

SAN JUAN DIVISION



October 11, 1996

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

Re: Patterson A Com #1
990'FSL, 1650'FEL Section 2, T-31-N, R-12-W, San Juan County, NM
API #30-045-11012

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Blanco Mesa Verde and Basin Dakota pools in the subject well. This is currently a dual Mesa Verde/Dakota well.

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 both the Dakota and Mesa Verde for at least one year;
4. Notification list of offset operators - Burlington is the offset operator;
5. Shut in wellhead pressure and calculated down hole pressure;
6. Nine-section plats for the Mesa Verde and Dakota.

The ownership for both the Mesa Verde and Dakota are common in this well. No notification to interest owners is required.

The allocation formula is included, showing 59% from the Mesa Verde and 41% from the Dakota formation.

Please let me know if you require additional data.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peggy Bradfield".

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

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

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

Burlington Resources Oil & Gas Company

PO Box 4289, Farmington, NM 87499

Operator

Address

Patterson A Com

1

O-2-31N-12W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18598 API NO. 30-045-11012 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 Mesaverde - 72319		Basin Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)		5052-5174		7295-7427'
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. 453 psi (see attachment)	a.	a. 668 psi (see attachment)
	(Original)	b. 1232 psi (see attachment)	b.	b. 1942 psi (see attachment)
6. Oil Gravity (°API) or Gas BTU Content		BTU 1200		BTU 1147
7. Producing or Shut-In?		producing		producing
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 * 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: 8/96 rates: 100 MCF/D, 0.23 BOPD		Date: Rates:	Date: 8/96 Rates: 70 MCF/D, 0.10 BOPD
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)		Oil: % Gas: % See attachment		Oil: % Gas: % See attachment

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 Peggy Bradfield TITLE Regulatory Administrator DATE 10-11-96

TYPE OR PRINT NAME Peggy Bradfield TELEPHONE NO. (505) 326-9700

Corrected Copy

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Superseder: C-128
Effective 1-1-65

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

Operator <i>Aztec Oil & Gas Company</i>			Lease <i>Patterson A</i>		Well No. <i>#1</i>
Unit Letter <i>0</i>	Section <i>2</i>	Township <i>31 North</i>	Range <i>12 West</i>	County <i>San Juan</i>	
Actual Footage Location of Well: <i>990</i> feet from the <i>South</i> line and <i>990</i> feet from the <i>East</i> line					
Ground Level Elev. <i>6254 Gr</i>	Producing Formation <i>Dakota</i>		Pool <i>Basin Dakota</i>	Dedicated Acreage: <i>318.95</i> 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 *Communitization*

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.

Name

Joe C. Salmon

Position

District Superintendent

Company

Aztec Oil & Gas Company

Date

September 18, 1969

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

Registered Professional Engineer
and/or Land Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

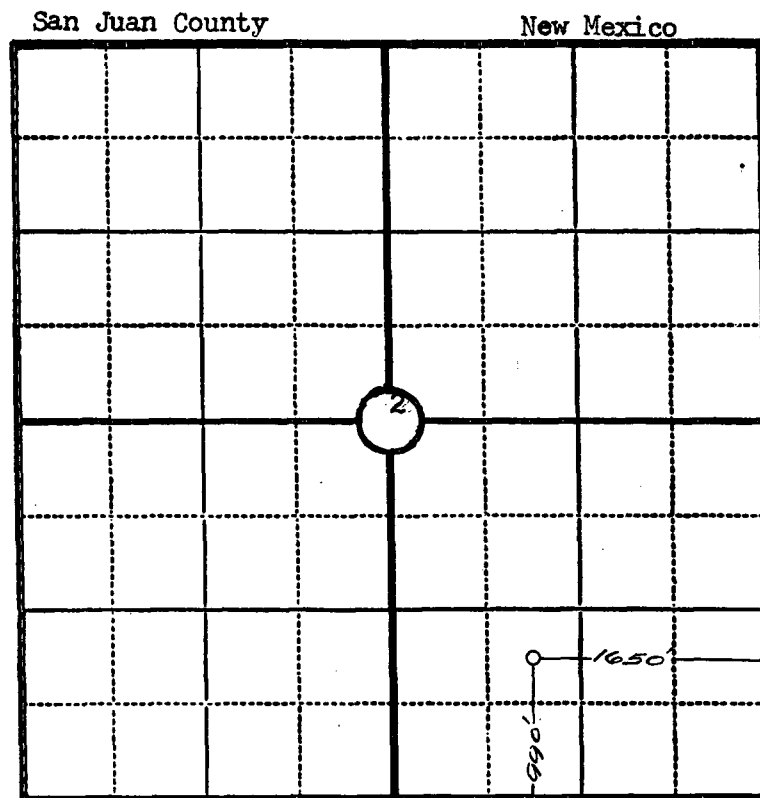
Corrected Copy

Company Southern Union Gas Company

Lease W. S. Patterson Well No. 1

Sec. 2, T. 31 N., R. 12 W., N.M.P.M.

Location 990' from the South line and 1650' from the East line.



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

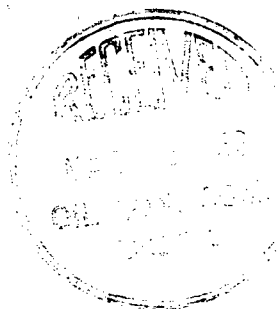


Seal:

James P. Leese
Registered Professional
Engineer and Land Surveyor.

James P. Leese
N. Mex. Reg. No. 1463

Surveyed March 2, 1953



NEW MEXICO
OIL CONSERVATION COMMISSION

Gas Well Plat

Date March 11, 1951
Southern Union Gas Co. Patterson 1
Operator Lease Well No.
Name of Producing Formation Mesaverde Pool Blanco

No. Acres Dedicated to the Well 319.95

SECTION 2 TOWNSHIP 31-N RANGE 12-W

		S. U. G. Patented	
		Z	Z
		E.P.M.G. State E-3150-1	S. U.G. State E-11625-17
		S.U.G. State	B-11625-15

I hereby certify that the information given above is true and complete
to the best of my knowledge.

Name A. M. WIEDERKEHR
Position Engineer
Representing Southern Union Gas Co.
Address Burt Bldg., Dallas

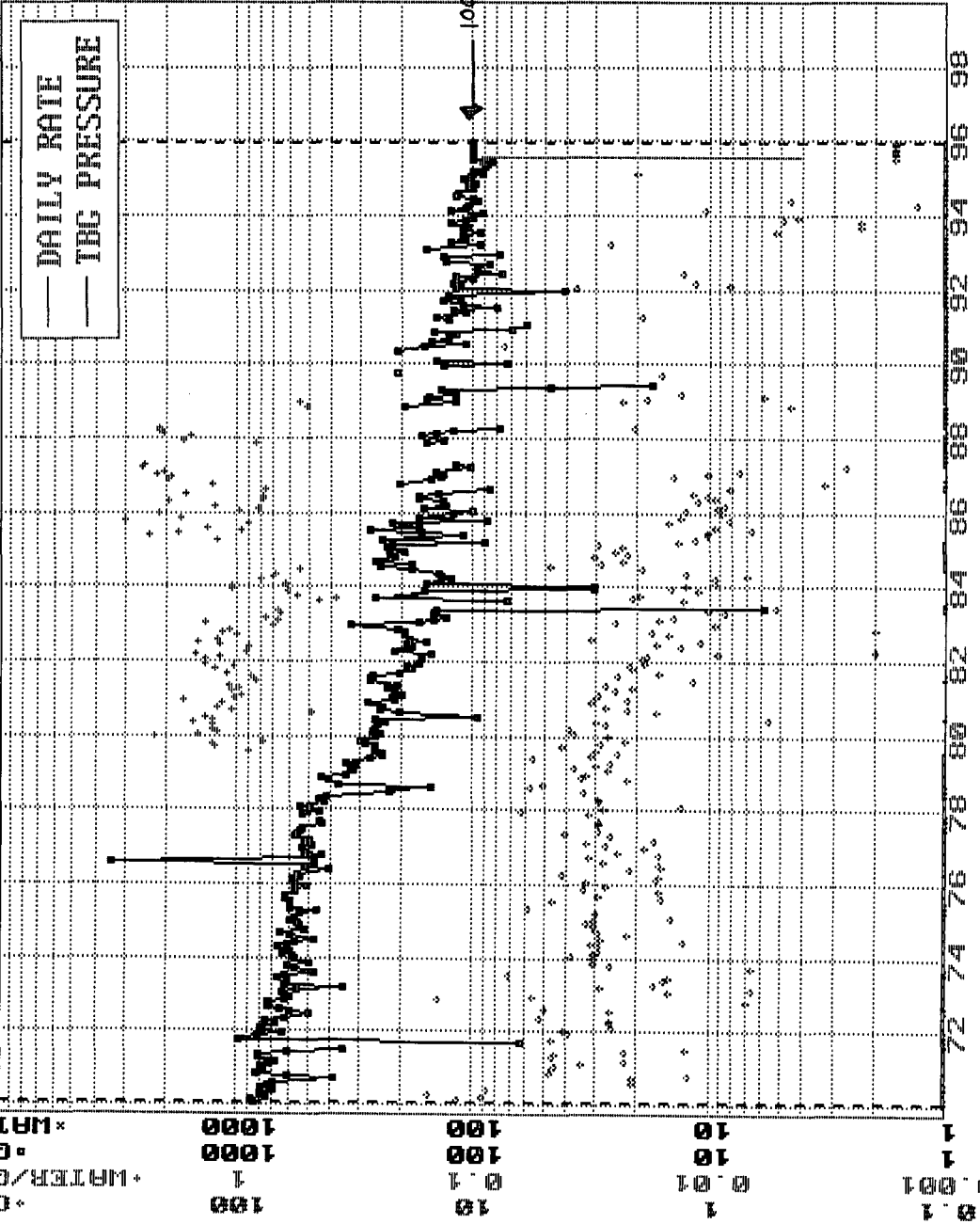
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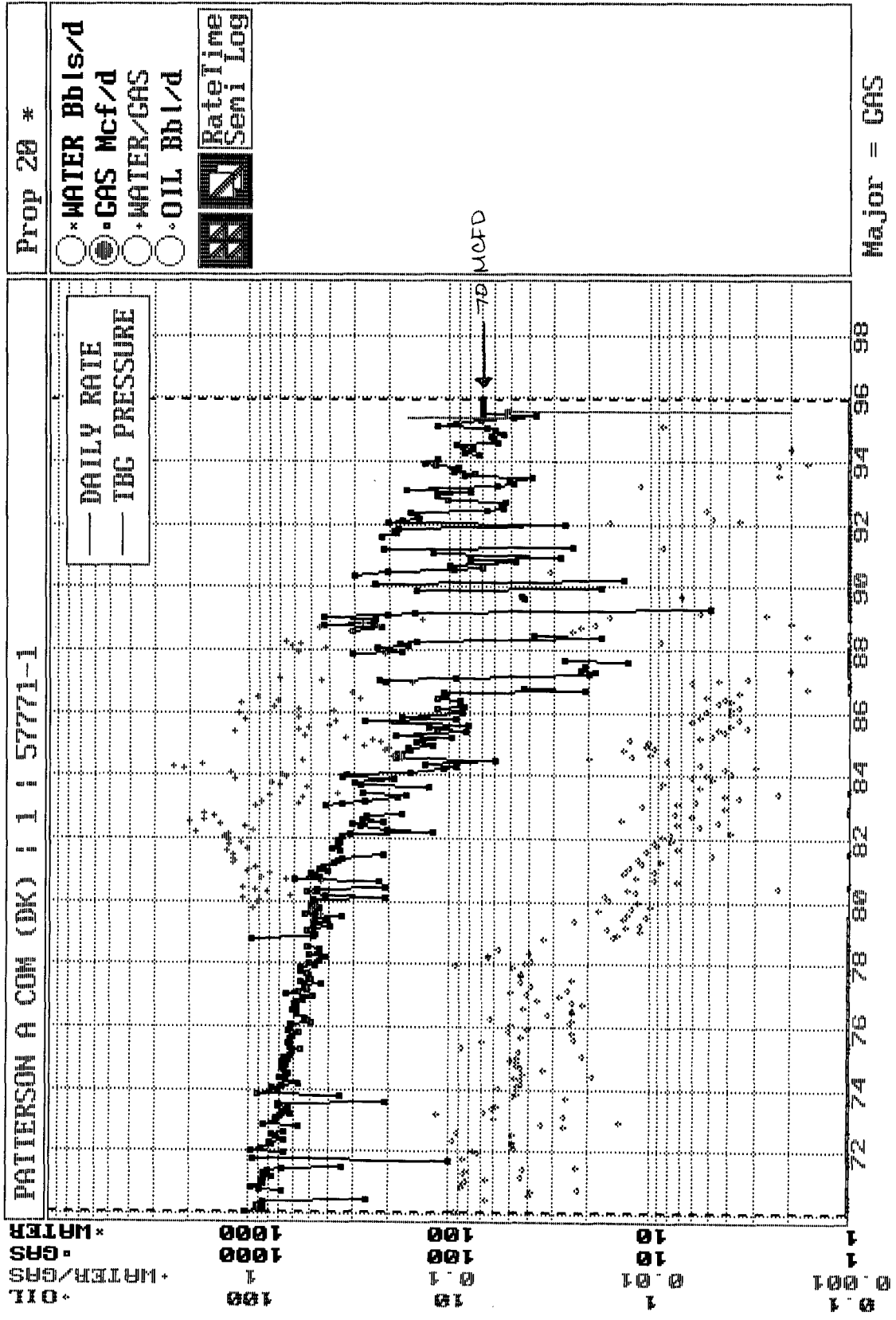
WATER*
GAS*
WATER/GAS*
OIL*

PAGE TWO

[illegible]

☐ *WATER Bbls/d
☒ *GAS Mcf/d
☐ *WATER/GAS
☐ *OIL Bbl/d

[illegible]

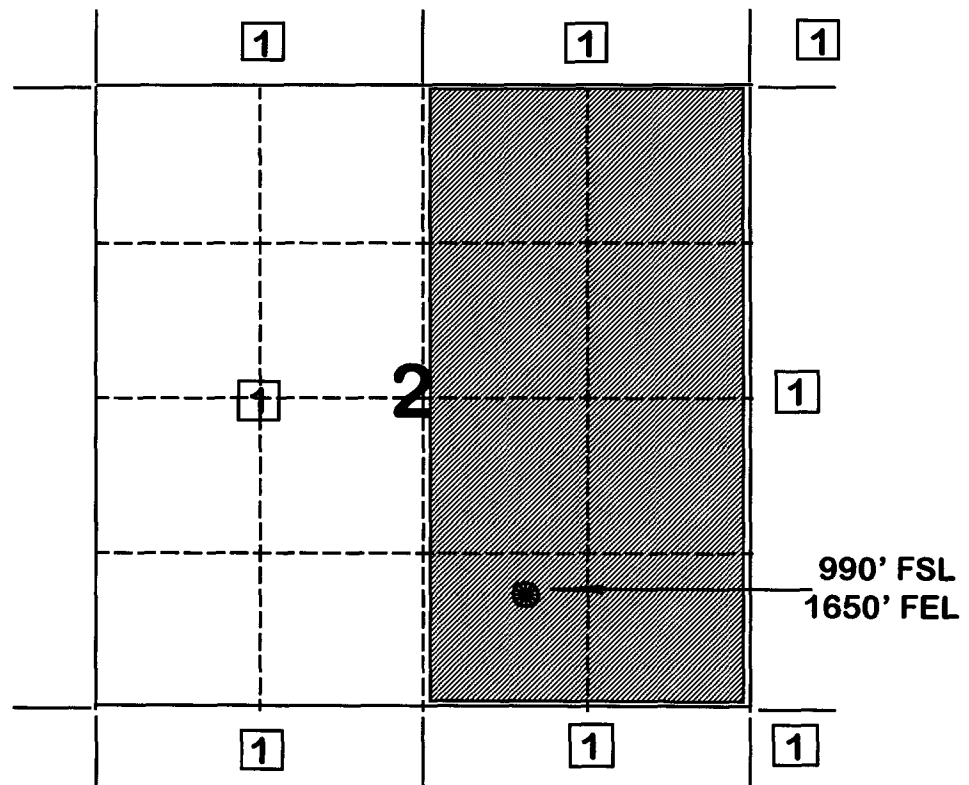


BURLINGTON RESOURCES OIL AND GAS COMPANY

**Patterson A Com #1
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde/Dakota Formations Commingle Well

Township 31 North, Range 12 West



1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.71
COND. OR MISC. (C/M)	C
%N2	0.28
%CO2	1.02
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	5174
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	397
BOTTOMHOLE PRESSURE (PSIA)	452.6

PATTERSON A COM #1 MESAVERDE - (CURRENT)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.71
COND. OR MISC. (C/M)	C
%N2	0.28
%CO2	1.02
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	5174
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	150
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1063
BOTTOMHOLE PRESSURE (PSIA)	1232.2

PATTERSON A COM #1 MESAVERDE - (ORIGINAL)

```

State: 30                      Lease Name: PATTERSON A COM
Prod: 2                        County Name: SAN JUAN
Ident: 31N12W02O00MV          Reservoir Name: MESAVERDE
District: 4                    Operator Name: MERIDIAN OIL INC
Location: 20 31N 12W          Field Name: BLANCO (MESAVERDE)
Retrieval code: 251,045,31N12W02O00MV  Well: 000001          Total Depth: 7490
Gas Gath: SUG                  Status: ACT              Upper Perf: 5052
API No: 1101200                Comp Date: 195305          Lower Perf: 5174

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----- DWIGHTS TEST DATA REPORT ----- ROW 9 OF 15
COMMAND ==>                                SCROLL ==> PAGE
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State: 30                      Lease Name: PATTERSON A COM
Prod: 2                        County Name: SAN JUAN
Ident: 31N12W02O00MV          Reservoir Name: MESAVERDE
District: 4                    Operator Name: MERIDIAN OIL INC
Location: 20 31N 12W          Field Name: BLANCO (MESAVERDE)
Retrieval code: 251,045,31N12W02O00MV  Well: 000001          Total Depth: 7490
Gas Gath: SUG                  Status: ACT                Upper Perf: 5052
API No: 1101200                Comp Date: 195305          Lower Perf: 5174

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Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BCDnd	WHFlw	Poten	MC	Pt	Z	FAC
19800916	4,104,236	460	521	553	0	0	81	277	C	2	42.000	
19820523	4,236,641	452	512	543	0	0	390	216	C	2	43.000	
19840822	4,362,518	434	491	520	0	0	379	260	C	2	45.000	
19860819	4,487,890	428	484	512	0	0	372	122	C	2	46.000	
19890903	4,572,640	461	522	554	0	0	291	191	C	2	42.000	
19910528	4,636,372	412	466	492	0	0	348	111	C	2	48.000	
19930504	4,709,569	397	449	473	0	0	320	121	C	2	0.950	
***** BOTTOM OF DATA *****												
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=RFIND	F6=RCHANGE							
F7=UP	F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE							
B MY JOB			LU #11									

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.69
COND. OR MISC. (C/M)	C
%N2	0.23
%CO2	2.21
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	7427
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	559
BOTTOMHOLE PRESSURE (PSIA)	667.6

PATTERSON A COM #1 DAKOTA - (CURRENT)

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

VERSION 1.0 3/13/94

GAS GRAVITY	0.69
COND. OR MISC. (C/M)	C
%N2	0.23
%CO2	2.21
%H2S	0
DIAMETER (IN)	2.5
DEPTH (FT)	7427
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	200
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1588
BOTTOMHOLE PRESSURE (PSIA)	1942.0

PATTERSON A COM #1 DAKOTA - (CURRENT)

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----- DWIGHTS TEST DATA REPORT ----- ROW 1 OF 14
COMMAND ==> m                                SCROLL ==> PAGE
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State:	30	Lease Name:	PATTERSON A COM
Prod:	2	County Name:	SAN JUAN
Ident:	31N12W02O00DK	Reservoir Name:	DAKOTA
District:	4	Operator Name:	MERIDIAN OIL INC
Location:	20 31N 12W	Field Name:	BASIN (DAKOTA)
Retrieval code:	251,045,31N12W02O00DK	Well:	000001
Gas Gath:	SUG	Status:	ACT
API No:	1101200	Comp Date:	196908
		Total Depth:	7490
		Upper Perf:	7295
		Lower Perf:	7427

[illegible]

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----- DWIGHTS TEST DATA REPORT ----- ROW 8 OF 14
COMMAND ==>                                SCROLL ==> PAGE
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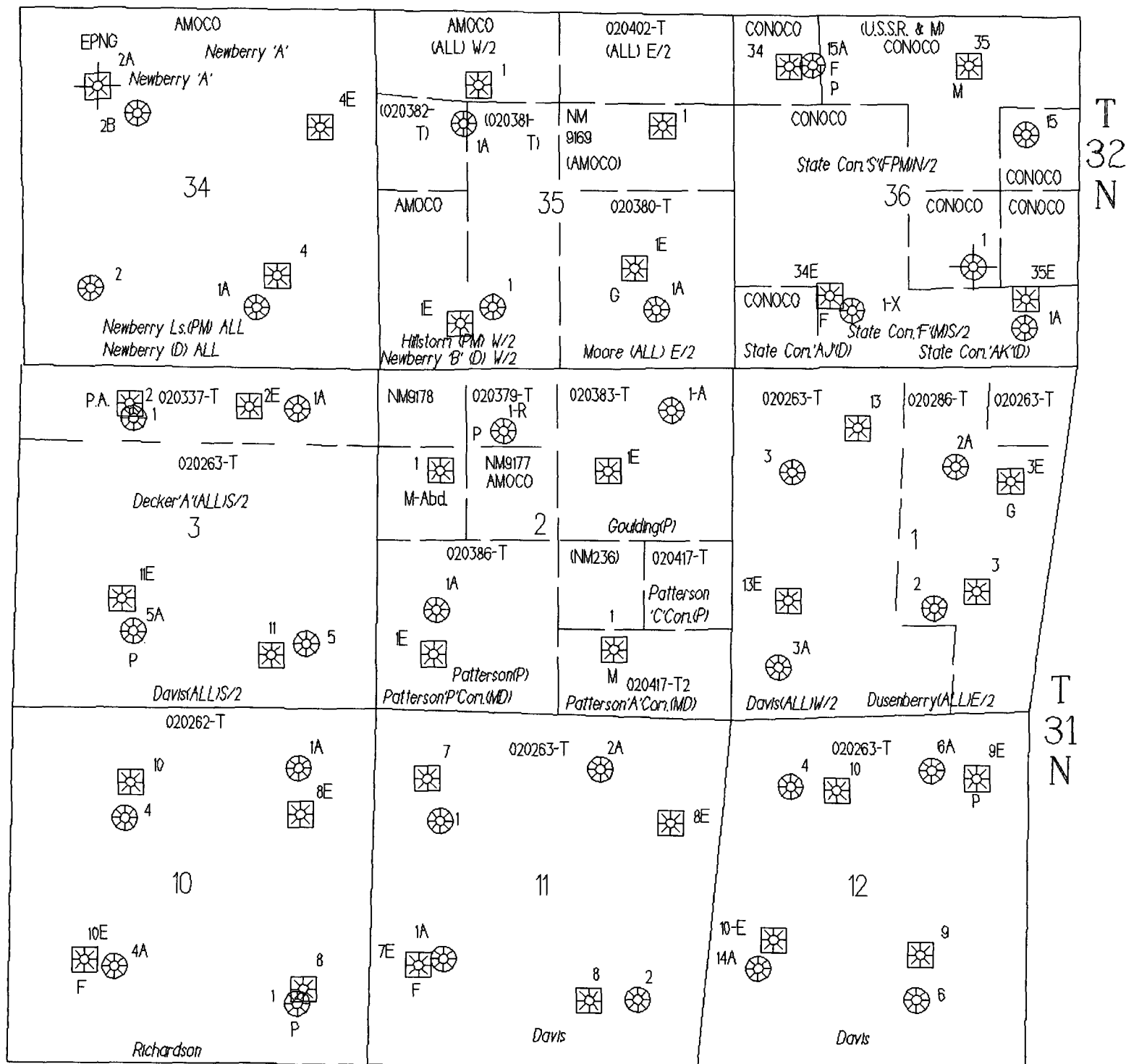
State: 30	Lease Name: PATTERSON A COM	
Prod: 2	County Name: SAN JUAN	
Ident: 31N12W02O00DK	Reservoir Name: DAKOTA	
District: 4	Operator Name: MERIDIAN OIL INC	
Location: 20 31N 12W	Field Name: BASIN (DAKOTA)	
Retrieval code: 251,045,31N12W02O00DK	Well: 000001	Total Depth: 7490
Gas Gath: SUG	Status: ACT	Upper Perf: 7295
API No: 1101200	Comp Date: 196908	Lower Perf: 7427

Date	Cum to Test	WHSIP	BHP	P/Z	BDWtr	BDCnd	WHFlw	Poten	MC	Pt	Z	FAC
19790502	2,087,515	682	810	864	0	0	406	461	C	2	38.000	
19810330	2,371,761	450	531	554	0	0	401	424	C	2	58.000	
19830608	2,575,518	502	594	623	0	0	373	384	C	2	53.000	
19850612	2,697,983	649	770	818	0	0	426	152	C	2	41.000	
19881115	2,842,893	642	762	810	0	0	366	105	C	2	41.000	
19901002	2,910,444	585	693	733	0	0	308	146	C	2	46.000	
19920602	2,976,202	559	662	698	0	0	330	191	C	2	48.000	
***** BOTTOM OF DATA *****												
F1=HELP	F2=SPLIT	F3=END	F4=RETURN	F5=RFIND	F6=RCHANGE							
F7=UP	F8=DOWN	F9=SWAP	F10=LEFT	F11=RIGHT	F12=RETRIEVE							
B MY JOB			LU #11									

PATTERSON A COM #1

SECTION 2, T31N, R12W

BLANCO MESAVERDE/BASIN DAKOTA



PRODUCTION ALLOCATION FORMULA METHOD

Patterson A Com #1
(Mesaverde/Dakota) Commingle
Unit O, 2-T31N-R12W
San Juan County, New Mexico

Allocation Formula Method:

Current Production from Mesaverde formation = 100 MCFD

Current Production from Dakota formation = 70 MCFD

$$\frac{[(MV \& DK) 170 \text{ MCFD} - (MV) 100 \text{ MCFD}]}{(MV \& DK) 170 \text{ MCFD}} = (DK) \% \quad \underline{\text{Dakota 41\%}}$$

$$\frac{[(MV \& DK) 170 \text{ MCFD} - (DK) 70 \text{ MCFD}]}{(MV \& DK) 170 \text{ MCFD}} = (MV) \% \quad \underline{\text{Mesaverde 59\%}}$$