

DATE IN 10/21/97	SUSPENSE 11/10/97	ENGINEER DC	LOGGED KN	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1733

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

10-20-97
Date

BURLINGTON RESOURCES

SAN JUAN DIVISION

October 16, 1997

SENT FEDERAL EXPRESS

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

Re: Feuille A #5
1750'FSL, 1755'FEL, Section 4, T-29-N, R-10-W
30-045-08693

Dear Mr. LeMay:

This is a request for administrative approval for downhole commingling the Mesa Verde and Dakota in the subject 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 curves for Mesa Verde and Dakota;
4. Notification list of offset operators;
5. Shut in wellhead pressure and calculated down hole pressure of surrounding wells;
6. Nine-section plats for the Mesa Verde and Dakota.

Working, overriding and royalty interests are identical in the commingled zones.

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,



Reggy Bradfield
Regulatory/Compliance Administrator

xc: Bureau of Land Management - hand delivered
OCD - Aztec District Office
Offset operators listed

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 87505-6429Form 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

Feuille A

5

J, Sec. 04, T29N, R10W

San Juan

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7015

API NO. 30-045-0869300 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	Mesa Verde - 72319		Dakota - 71599
2. Top and Bottom of Pay Section (Perforations)	Supplied Upon Completion (approximately 3900' - 4450')		6738' - 6876'
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. 601 psia @ 4175' based on offset Grenier B No. 4 (Original) b. 1159 psia @ 4175' based on offset Grenier B No. 4	a. b.	a. 613 Psia @ 6807' b. 2677 Psia @ 6807'
6. Oil Gravity (°API) or Gas BTU Content	1205 BTU		1135 BTU
7. Producing or Shut-In?	Not Yet Completed		Producing
Production Marginal? (yes or no)	Unknown Until Completion		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 water of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
	Date: Rates:	Date: Rates:	Date: 9/10/97 Rates: 23 MCFD
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 ☐ 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) _____

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 Kevin L. Midkiff TITLE Sr. Operations Eng. DATE 10-15-97TYPE OR PRINT NAME Kevin L. Midkiff TELEPHONE NO. (505) 326-9700

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

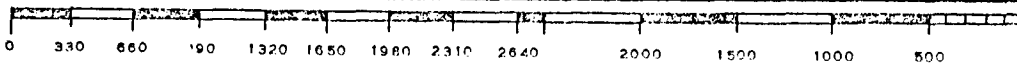
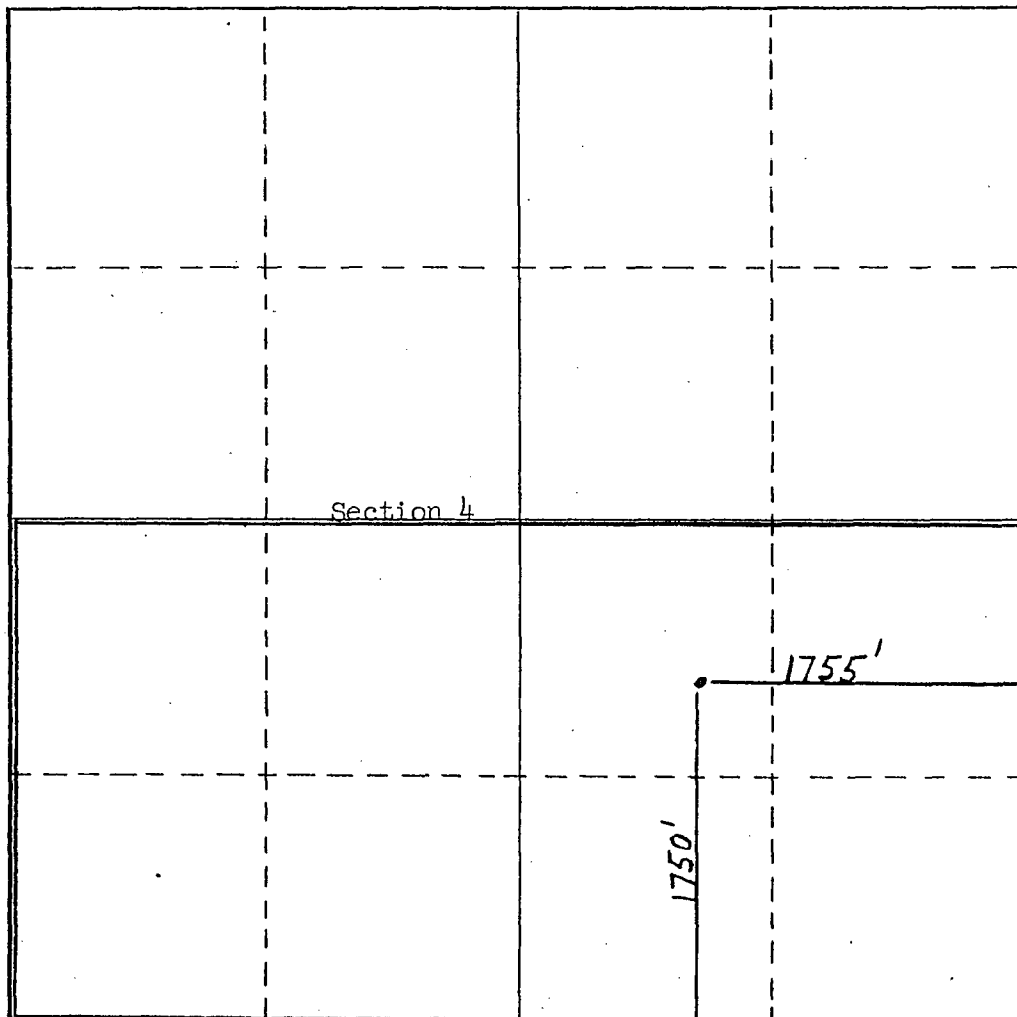
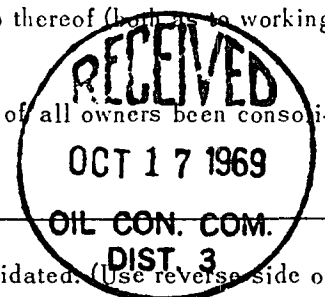
Operator CENARD OIL & GAS CO.			Lease NYE Jewell A		Well No. 5 ±
Unit Letter J	Section 4	Township 29 North	Range 10 West	County San Juan	
Actual Footage Location of Well: 1750 feet from the south line and 1755 feet from the east line					
Ground Level Elev. 5859.10'	Producing Formation Dakota	Pool Basin Dakota		Dedicated Acreage: 292.04 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.

L. T. Brown

Name

L. T. Brown

Position

Senior Production Foreman

Company

Cenard Oil & Gas Co.

Date

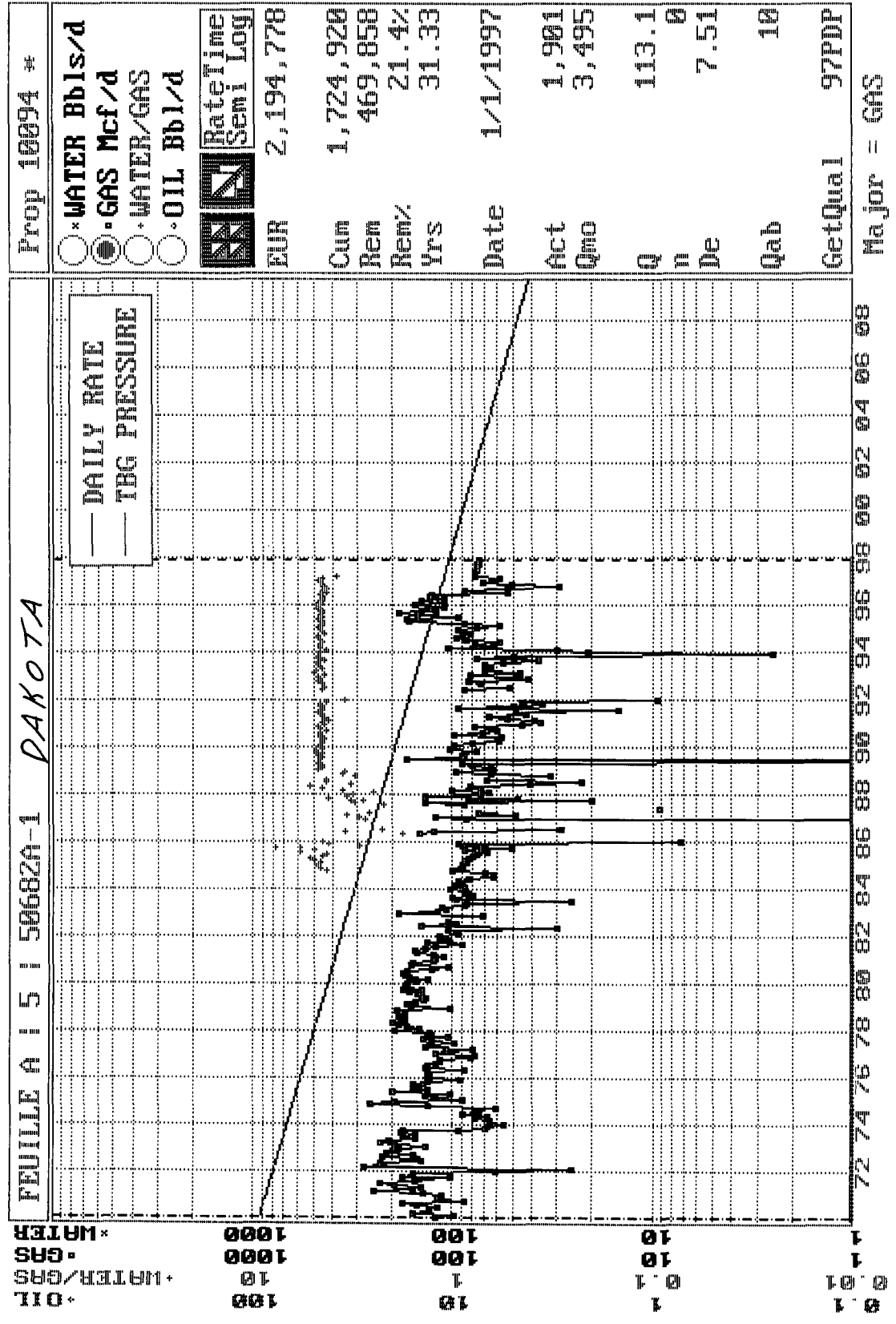
October 14, 1969

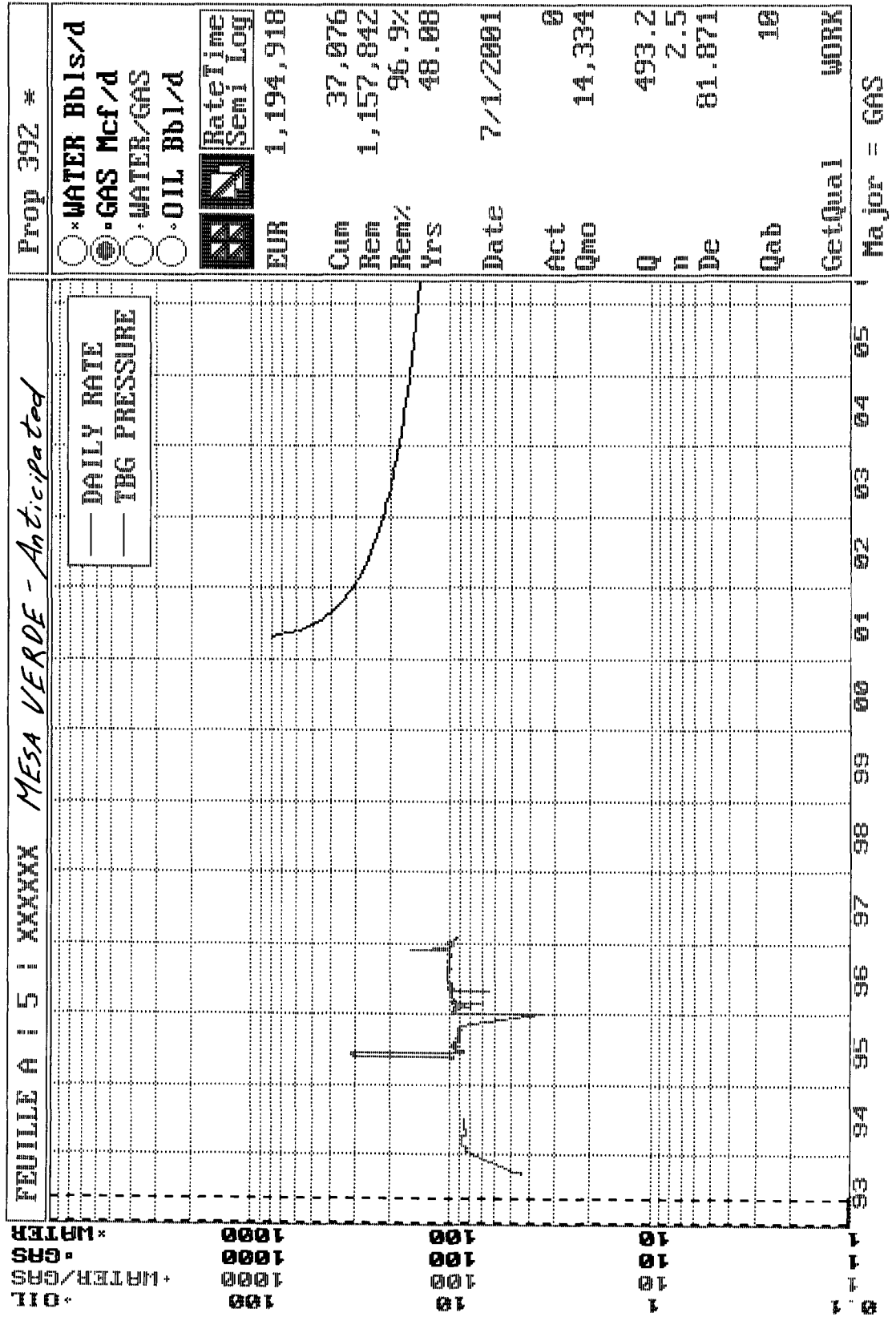
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

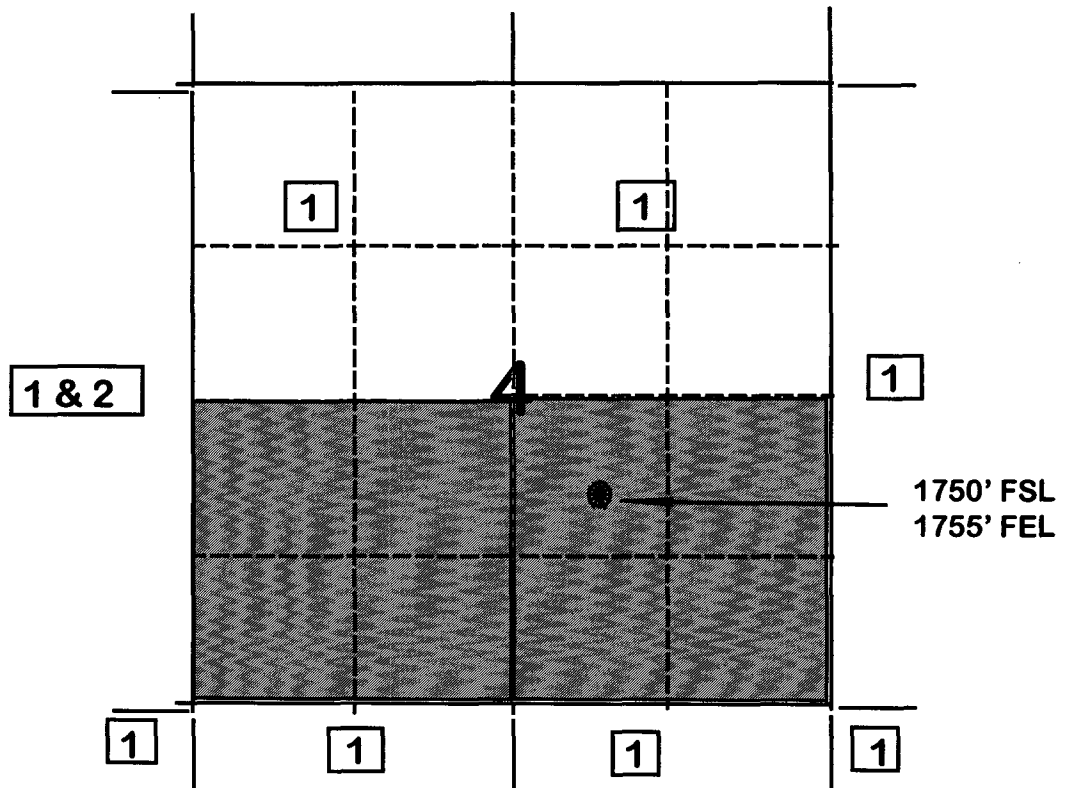
Certificate No.





Feuille A #5
OFFSET OPERATOR \ OWNER PLAT

Township 29 North, Range 10 West



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

Page No.: 1
 Print Time: Tue Sep 23 13:25:24 1997
 Property ID: 10094
 Property Name: FEUILLE A | 5 | 50682A-1
 Table Name: K:\ARIES\RR98PDP\TEST.DBF

DAKOTA

--DATE--	---CUM_GAS-- Mcf	M SIWHP Psi
----------	---------------------	----------------

11/30/62	0	2169.0	<i>Initial Pressure</i>
12/13/62	0	2168.0	
04/10/63	29000	1800.0	
07/16/64	195000	1301.0	
02/01/65	253000	1279.0	
07/22/66	423000	1173.0	
07/25/67	521000	1061.0	
08/13/68	611000	991.0	
12/16/70	750377	880.0	
05/27/71	777400	861.0	
09/18/72	857928	766.0	
02/11/74	936399	694.0	
08/18/75	1003140	620.0	
06/20/77	1082272	560.0	
06/18/79	1197055	474.0	
08/05/81	1313875	434.0	
10/11/83	1387019	584.0	
06/03/85	1439077	611.0	
04/09/90	1551274	603.0	
04/15/93	1606819	640.0	

7/97 1739567 515 *Current pressure from Pressure vs. Cum. Gas Plot*


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Print Time: Tue Sep 23 13:35:17 1997
Property ID: 11258
Property Name: GRENIER B | 4 | 25669-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

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OFFSET
MESA VERDE
PRODUCER

<u>--DATE--</u>	<u>---CUM_GAS---</u>	<u>M SIWHP</u>
	Mcf	Psi

04/17/73	0	1023.0	- Initial Pressure
09/26/73	22908	693.0	
08/02/74	67145	465.0	
08/02/75	103176	568.0	
08/02/76	129417	672.0	
10/03/78	181813	691.0	
08/16/80	228325	582.0	
06/08/82	274339	605.0	
04/04/84	301639	701.0	
03/12/86	326928	763.0	
05/10/89	389764	622.0	
11/12/91	425898	650.0	
05/31/93	447803	596.0	

7/97 536551 537 - Current Pressure based on
SIWHP vs. Cum. Gas Plot

Feuille A No. 5
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Mesa Verde		Pictured Cliffs	
<u>MV - Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.712	GAS GRAVITY	0.692
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.87	%N2	0.24
%CO2	0.74	%CO2	1.88
%H2S	0	%H2S	0
DIAMETER (IN)	4	DIAMETER (IN)	4
DEPTH (FT)	4175	DEPTH (FT)	6807
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	123	BOTTOMHOLE TEMPERATURE (DEG F)	138
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	537	SURFACE PRESSURE (PSIA)	515
BOTTOMHOLE PRESSURE (PSIA)	601.1	BOTTOMHOLE PRESSURE (PSIA)	612.8
The Mesa Verde Pressures are from the Grenier B No. 4 which is an offset MV producer.			
<u>MV - Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.712	GAS GRAVITY	0.692
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.87	%N2	0.24
%CO2	0.74	%CO2	1.88
%H2S	0	%H2S	0
DIAMETER (IN)	4	DIAMETER (IN)	4
DEPTH (FT)	4175	DEPTH (FT)	6807
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	123	BOTTOMHOLE TEMPERATURE (DEG F)	138
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1023	SURFACE PRESSURE (PSIA)	2169
BOTTOMHOLE PRESSURE (PSIA)	1158.8	BOTTOMHOLE PRESSURE (PSIA)	2677.2
The Mesa Verde Pressures are from the Grenier B No. 4 which is an offset MV producer.			

FARMINGTON

ANNUAL PRODUCTION FOR 50682A

PHS020M1

FEUILLE A 5

BASIN DAKOTA (PRORATED GAS) FIELD

DAKOTA ZONE

===== OIL CUM =====

===== GAS CUM =====

===== WATER CUM =====

PC DATE BBLs

PC DATE

MCF

DATE

BBLs

02 6912 2742

01 6912

703618

YEAR	OIL	OIL CUM	GAS	GAS CUM	WATER	WATER CUM
1990		2745	26539	1567566	121	625
1991		2745	17401	1584967	78	703
1992		2745	12090	1597057	55	758
1993		2745	20343	1617400	94	852
1994		2745	27300	1644700	125	977
1995		2745	45862	1690562	210	1187
1996		2745	34358	1724920	156	1343
1997		2745	14647	1739567	69	1412

POSITION CURSOR BY YEAR AND PRESS ENTER TO DISPLAY MONTHLY PRODUCTION

ENTER - CONTINUES ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF6 - RETURN TO WELL-INFO DISPLAY

PF9 - ANNUAL INJECTION DISPLAY

PF10 - HELP INFORMATION

00/00/00 00:00:00:0 D03 09/02/89

FARMINGTON

1997 MONTHLY PRODUCTION FOR 50682A

PHS030M1

FEUILLE A 5

BASIN DAKOTA (PRORATED GAS) FIELD

DAKOTA ZONE

DAYS =====				OIL =====		=====		GAS =====						
MO	T	S	ON	PC	PROD	GRV	PC	PROD	ON	BTU	PRESS	WATER	PROD	C
1	2	F	31				01	1901	31	1136	15.025		9	
2	2	F	28				01	1770	28	1136	15.025		8	
3	2	F	31				01	1890	31	1136	15.025		9	
4	2	F	30				01	2517	30	1134	15.025		12	
5	2	F	31				01	2306	31	1134	15.025		11	
6	2	F	27				01	2128	27	1134	15.025		10	
7	2	F	31				01	2135	31	1134	15.025		10	
8														
9														
10														
11														
12														

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

PRS 09/04/97

FDG055M4 4719

WELL PRODUCTION 8/8'S VOLUME

09/23/97 14:20:24

DP NO: 50682A

DATE: 970910 (YYMMDD FORMAT)

FEUILLE A

5 SCROLL FORWARD BY DATE: _

S *DAKOTA*

E	DATE	HOURS	-OIL PRODN-	-GAS PRODN-	-WATER PRODN-		
L	PRODUCED	ON	(BOPD	BOPM)	(MCFD	MCFM)	(BWPD BWPM)
-	09/10/97	24.0	0.00	0.00	23	184	0.00 0.00
-	09/09/97	24.0	0.00	0.00	14	161	0.00 0.00
-	09/08/97	24.0	0.00	0.00	19	147	0.00 0.00
-	09/07/97	24.0	0.00	0.00	15	128	0.00 0.00
-	09/06/97	24.0	0.00	0.00	21	113	0.00 0.00
-	09/05/97	24.0	0.00	0.00	16	92	0.00 0.00
-	09/04/97	24.0	0.00	0.00	16	76	0.00 0.00
-	09/03/97	24.0	0.00	0.00	16	60	0.00 0.00
-	09/02/97	24.0	0.00	0.00	26	44	0.00 0.00
-	09/01/97	24.0	0.00	0.00	18	18	0.00 0.00
-	08/31/97	24.0	0.00	0.00	13	861	0.00 0.00

ENTER I UNDER SEL FOR MAINTENANCE

PF12=MAIN MENU	PF6=NRI	PF10=BROWSE MENU	PF11=INQ/UPDATE MENU
	ENTER=BACKWARDS		PF24=HELP

DATE: September 19, 1997

NAME: FEUILLE A #5

FORM: Mesaverde

LOCATION

UNIT: J

SEC: 4

TWN: 29N

RNG: 10W

<p>AMOCO</p> <p>[32]</p> <p>3/57 Stewart A Com A LS 2 18 - 455</p>	<p>AMOCO</p> <p>10/80 Bassett B 1 209 - 705</p> <p>2/83 Bassett B 1M 2 - 487</p>	<p>CONOCO</p> <p>10/80 Triebl Fed 2E Inactive 8/96 Cum 333</p> <p>[33]</p>
<p>AMOCO</p> <p>8/62 Ludwick LS 13 71 - 1234</p> <p>[5] BR 10/81 Grenier B 3E 181 - 981</p>	<p>7/81 Grenier B 4A 113 - 630</p> <p>4/73 Grenier B 4 97 - 533</p> <p>13/1 Feuille A 5</p> <p>40 pgs 108 w/p D</p> <p>[4]</p>	<p>8/84 Grenier A 3M 98 - 424</p> <p>12/70 Grenier A 3 Inactive 3/93 [34] Cum 112</p> <p>7/82 Sanchez 3E 76 - 694</p> <p>9/87 Sanchez 3A 131 - 435</p>
<p>9/71 Hare 16 27 - 481</p> <p>[3]</p> <p>3/72 Hare 15 Inactive 1992 Cum 98</p> <p>10/81 Hare 15M 69 - 487</p>	<p>9/70 Hare 14 39 - 998</p> <p>[10]</p>	<p>11/71 Hare 18 180 - 625</p> <p>4/82 Hare 18M 81 - 620</p>

LEGEND
FIRST DELIVERY DATA

WELL NAME
MCF/D-CUM(MMF)
AS OF 5/97

R-10-W