

DATE IN 3/4/98	SUSPENSE 3/24/98	ENGINEER DC	LOGGED WV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

1871

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]

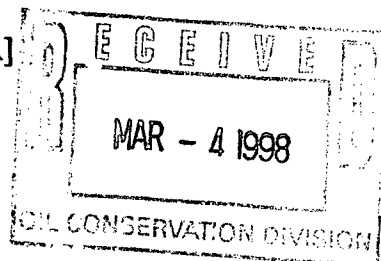
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[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

Regulatory/Compliance Administrator

Signature

Title

Date

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

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY

PO Box 4289, Farmington, NM 87499

Operator

Address

Grenier B

#3,

K 5-29-10

San Juan, New Mexico

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18532 API NO. 30-045-08695 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)	4130' - 4720' (Proposed) Act. Provided at Completion		6634' - 6702'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Not currently completed		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	(Current) a. 353 psia at 4425' (Original) b. 1317 psia at 4425'	a. b.	Measured a. 586 psia at 6668' b. 2450 psia at 6668'
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content			
7. Producing or Shut-In?	Awaiting Recompletion		Producing
Production Marginal? (yes or no)	Anticipated to be 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	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
* If Producing, give data and oil/gas/water of recent test (within 60 days)	Date: Rates: N/A	Date: Rates:	Date: 1/27/97 Rates: 0.7 BOD, 40 MCFD
	Oil: Gas: will be supplied upon completion	Oil: % Gas: % will be supplied upon completion	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 Operations Engineer DATE 03-02-98TYPE OR PRINT NAME Kevin Midkiff TELEPHONE NO. (505) 326-9700

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 21, 1997
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-08695		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 18532	*Property Name GRENIER B		*Well Number 3
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 5775'

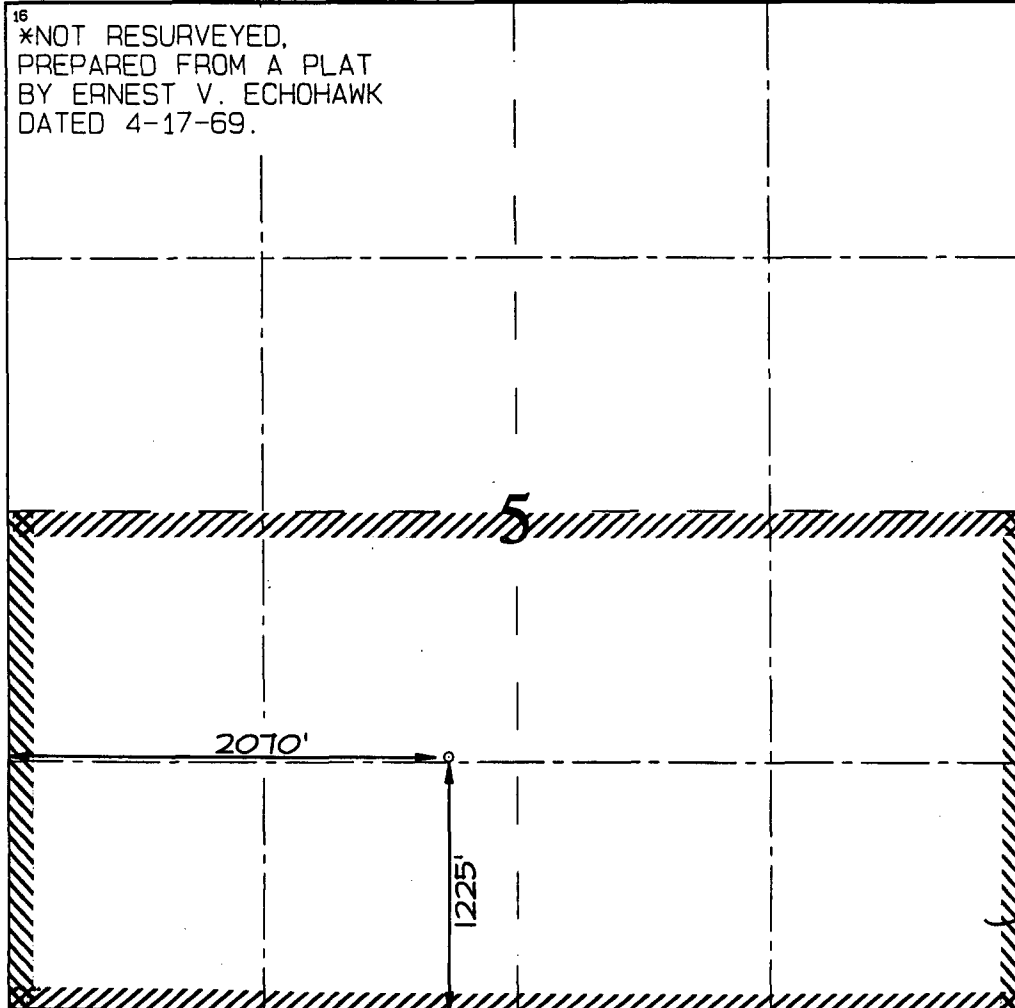
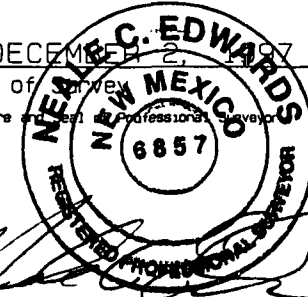
¹⁰ Surface Location

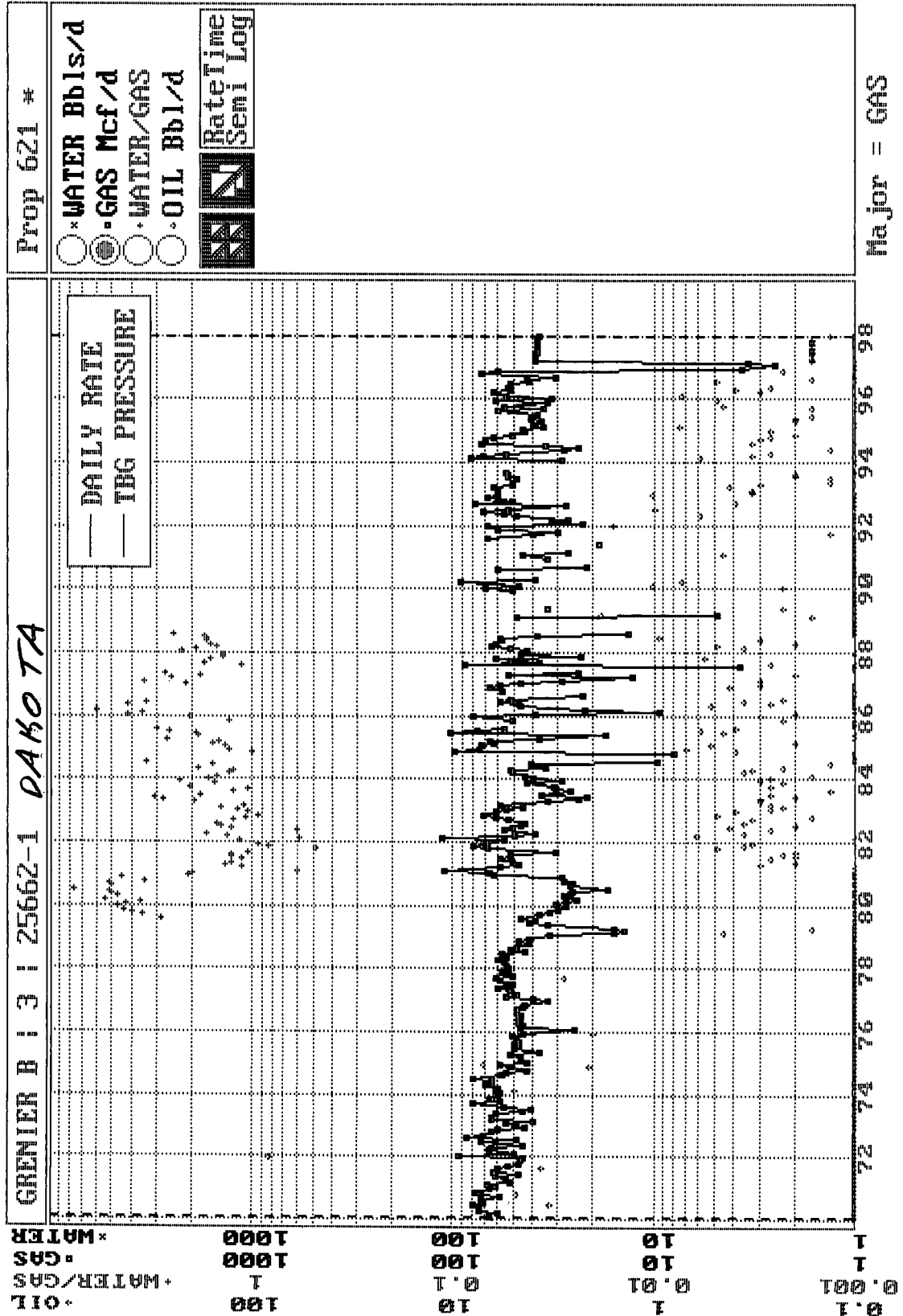
UL or lot no. K	Section 5	Township 29N	Range 10W	Lot Idn	Feet from the 1225	North/South line SOUTH	Feet from the 2070	East/West line WEST	County SAN JUAN
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres MV-S/294.52 DK-S/294.52		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

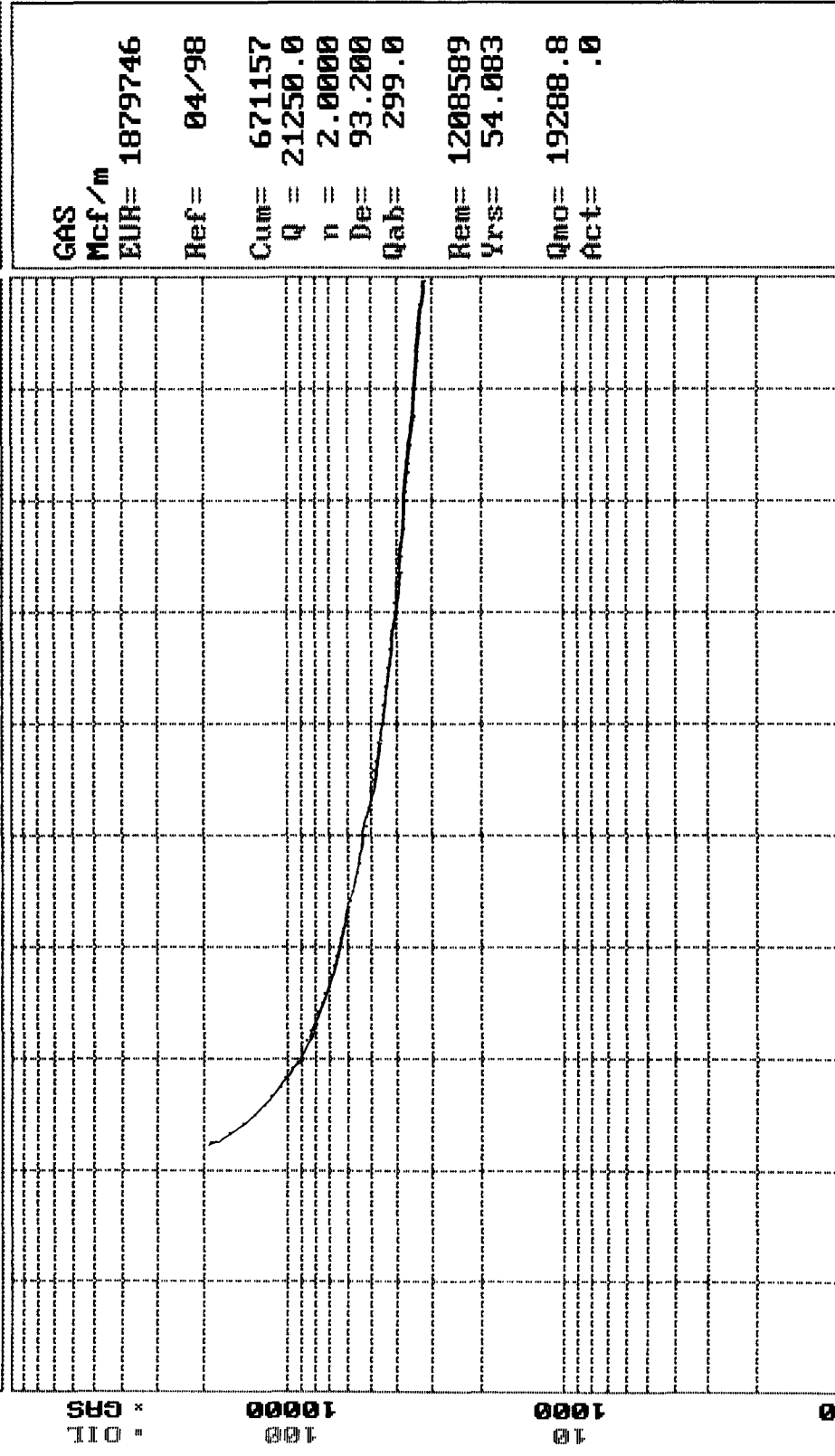
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ *NOT RESURVEYED, PREPARED FROM A PLAT BY ERNEST V. ECHOHAWK DATED 4-17-69.		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
		Signature Peggy Bradfield Printed Name Regulatory Administrator Title 12-11-97 Date
		¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by or under my supervision, and that the same is true and correct to the best of my belief.
		DECEMBER 2, 1997 Date of Survey Signature of Professional Surveyor  6857 Certificate Number



GRENIER B : 3 : 33901A-1 MESA VERDE - EXPECTED

Prop: 11



GAS
 Mcf/m
 EUR= 1879746
 Ref= 04/98
 Cum= 671157
 Q = 21250.0
 n = 2.0000
 De= 93.200
 Qab= 299.0
 Rem= 1208589
 Yrs= 54.083
 Qmo= 19288.8
 Act= .0

Major=GAS

Package Preparation Volume Data

DPNo: 25062

GRENIER E

3

Form: DK

Supt: 60 KEN RAYBON

FF: 338 JOHNNY ELLIS

MS: 327 MIKE MCKINNEY

Pipeline: WFS

Plunger: No

Dual: No

Compressor: Yes

Ownership (No Trust)

	<u>Gas</u>	<u>Oil</u>
GWI:	25.0000%	25.0000%
GNI:	20.8181%	20.8181%

Volumes

(Days On)

	<u>MCFD</u>	<u>BOPD</u>
7 Day Avg	40	0.7
30 Day Avg	40	0.1
60 Day Avg	35	0.1
3 Mo Avg	33	0.1
6 Mo Avg	34	0.1
12 MoAvg	24	0.1

Volumes

(Days in Month)

	<u>MCFD</u>	<u>BOPD</u>
30 Day Avg	40	0.1
60 Day Avg	35	0.1
3 Mo Avg	33	0.1
6 Mo Avg	35	0.1
12 Mo Avg	24	0.1

Prior Year

	<u>MCF/M</u>	<u>BOPM</u>	<u>Days On</u>
Jan	1,013	2.0	31
Feb	1,694	22.0	29
Mar	1,972	9.0	31
Apr	1,637	12.0	30
May	1,671	8.0	31
Jun	1,618	0.0	30
Jul	1,294	15.0	31
Aug	1,349	5.0	31
Sept	955	0.0	30
Oct	2,262	0.0	31
Nov	1,855	7.0	30
Dec	115	0.0	31
Total	17,435	80.0	

Current Year

	<u>MCF/M</u>	<u>BOPM</u>	<u>Days On</u>
Jan	78	0.0	31
Feb	107	0.0	28
Mar	1,384	0.0	31
Apr	91	0.0	30
May	657	2.0	31
Jun	1,201	6.0	30
Jul	953	1.0	31
Aug	1,125	1.0	31
Sept	376	0.0	30
Oct	1,728	7.0	31
Nov	917	6.0	30
Dec	0	0.0	31
Total	8,617	23.0	

Print Form

Exit Volumes Data

Grenier B No. 3
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 3/13/94

Mesaverde		Dakota	
<u>MV-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.709	GAS GRAVITY	0.702
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.28	%N2	0.27
%CO2	0.56	%CO2	1.84
%H2S	0	%H2S	0
DIAMETER (IN)	4	DIAMETER (IN)	4
DEPTH (FT)	4425	DEPTH (FT)	6668
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	118	BOTTOMHOLE TEMPERATURE (DEG F)	147
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	315	SURFACE PRESSURE (PSIA)	494
BOTTOMHOLE PRESSURE (PSIA)	353.1	BOTTOMHOLE PRESSURE (PSIA)	586.1
<u>MV-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.709	GAS GRAVITY	0.702
COND. OR MISC. (C/M)	M	COND. OR MISC. (C/M)	M
%N2	0.28	%N2	0.27
%CO2	0.56	%CO2	1.84
%H2S	0	%H2S	0
DIAMETER (IN)	4	DIAMETER (IN)	4
DEPTH (FT)	4425	DEPTH (FT)	6668
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	118	BOTTOMHOLE TEMPERATURE (DEG F)	147
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1149	SURFACE PRESSURE (PSIA)	1990
BOTTOMHOLE PRESSURE (PSIA)	1317.2	BOTTOMHOLE PRESSURE (PSIA)	2450.0

Note: Since the Mesa Verde zone is a recompletion, data was utilized from the offset Grenier B No. 3E.

Page No.: 1
Print Time: Tue Jan 27 14:05:29 1998
Property ID: 2809
Property Name: GRENIER B | 3E | 25694-1
Table Name: K:\ARIES\RR98PDP\TEST.DBF

OFFSET MESA VERDE

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

10/31/81	0	1137.0
05/02/82	124467	544.0
08/24/83	249678	521.0
04/03/84	304800	480.0
09/17/86	442236	398.0
08/30/89	572033	424.0
10/21/91	649304	354.0
11/12/91	653665	366.0
05/31/93	718053	352.0

<i>11/30/97</i>	<i>875041</i>	<i>303 Estimated</i>
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Page No.: 1

Print Time: Tue Jan 27 14:04:58 1998

Property ID: 621 *DAKOTA*

Property Name: GRENIER B | 3 | 25662-1

Table Name: K:\ARIES\RR98PDP\TEST.DBF

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

03/12/62	0	1978.0
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09/28/70	283774	895.0
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06/26/71	300873	524.0
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05/26/72	320219	486.0
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07/03/73	345140	488.0
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09/01/75	389709	583.0
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07/03/77	421071	490.0
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09/24/81	484883	595.0
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08/24/83	521981	591.0
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04/03/85	547156	535.0
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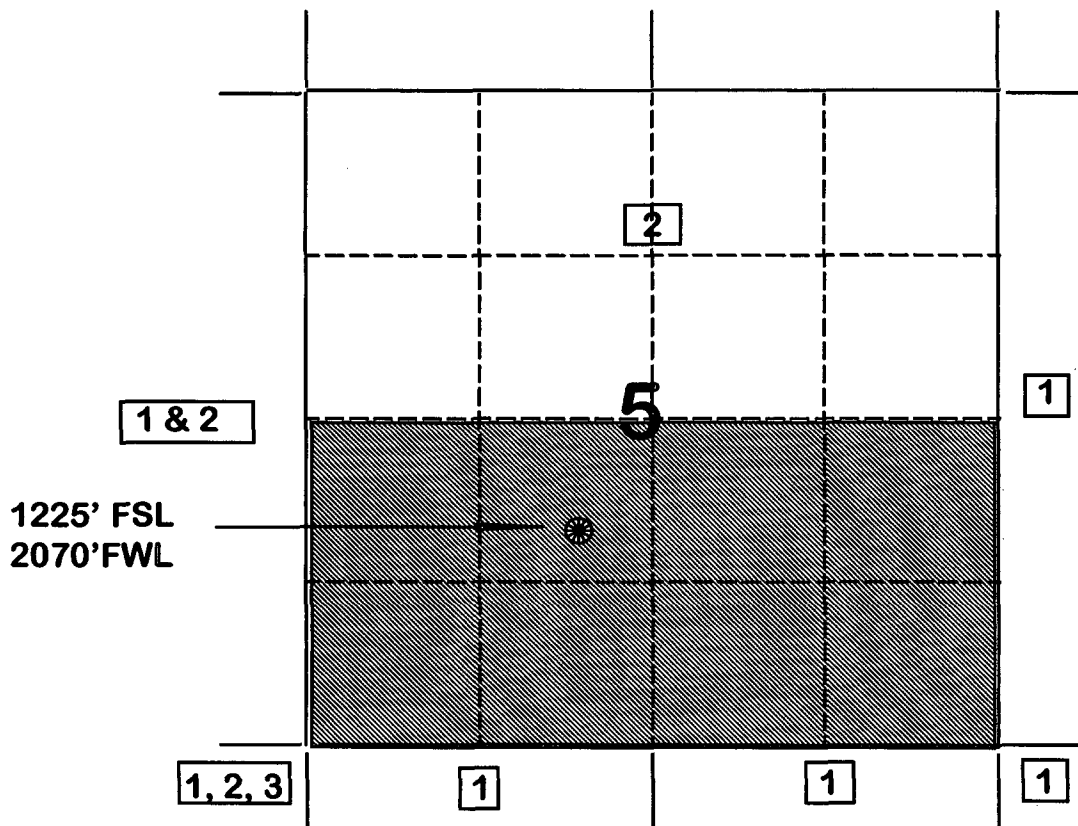
11/30/97	719658	482.4 <i>Estimated</i>
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BURLINGTON RESOURCES OIL AND GAS COMPANY

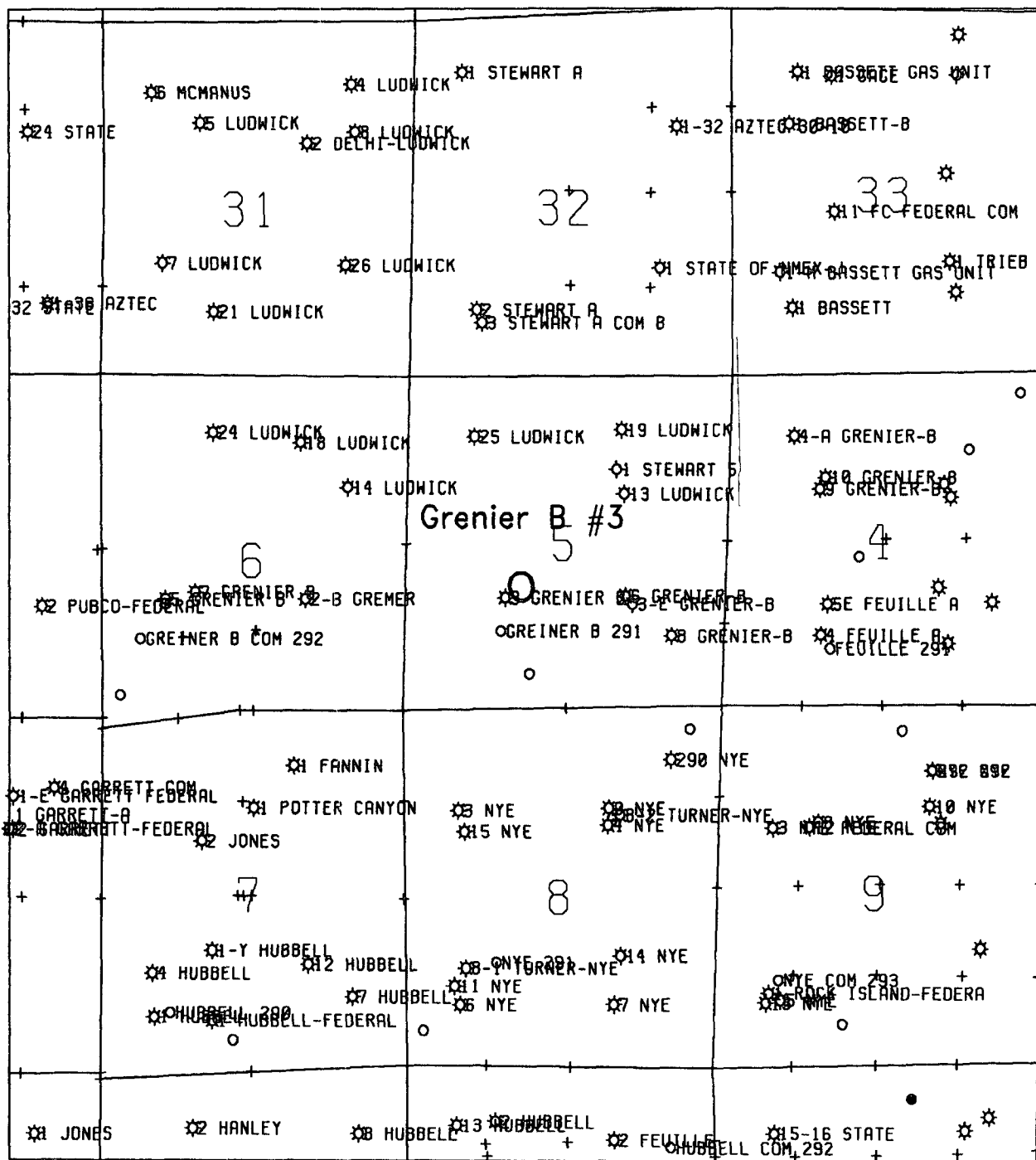
**Grenier B #3
OFFSET OPERATOR \ OWNER PLAT**

Mesaverde / Dakota Formations Commingle Well

Township 29 North, Range 10 West



- 1) Burlington Resources
- 2) Amoco Production Company
c/o Bruce Zimney
P.O. Box 800
Denver, CO 80201
- 3) Conoco, Inc.
10 Desta Drive, Ste. 100W
Midland, Texas 79705-4500



Grenier B #3
29N, 10W, 5 K
MV / DK