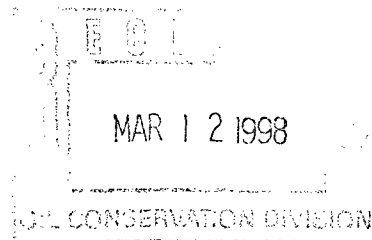


TAURUS

TAURUS EXPLORATION, INC.
2198 Bloomfield Highway
Farmington, New Mexico 87401
Telephone (505) 325-6800

March 9, 1998

David Catanach
New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505



RE: Application to Downhole Commingle
Hare 17 Well
N² Sec. 15-T29N-R10W
San Juan County, New Mexico

Dear Mr. Catanach:

This is to advise that Taurus Exploration U.S.A., Inc., as an offset operator, has no objection to Burlington Resources application to downhole commingle the Mesa Verde and Dakota formations in the captioned well.

If there should be any questions please advise.

Sincerely,

A handwritten signature in cursive script, reading "Richard P. Corcoran". The signature is written in dark ink and is positioned above the typed name.

Richard P. Corcoran
District Landman

RPC/df
cc: Alan Alexander, Burlington Resources

DATE IN 2/11/98	SUSPENSE 3/3/98	ENGINEER DC	LOGGED MV	TYPE DHC
--------------------	--------------------	----------------	--------------	-------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1837

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

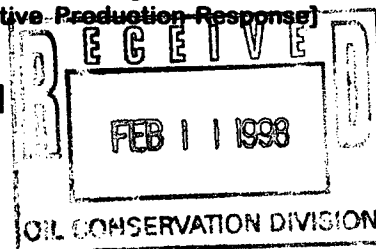
[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [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

Signature

Regulatory/Compliance Administrator

Title

Date

2/10/98

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

Hare

#17

B 15-29-10

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 7091 API NO. 30-045-08400 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)	4025' - 4550' : Proposed Actual supplied upon completion		6536' - 6632'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Plan to Flow after Recompletion		Flowing
5. Bottomhole Pressure	(Current)	a.	Measured
Oil Zones - Artificial Lift: Estimated Current	a. 298 psia (est)		a. 607 psia
Gas & Oil - Flowing: Measured Current	(Original)	b.	b. 2469 psia
All Gas Zones: Estimated or Measured Original	b. 1254 psia (est)		
6. Oil Gravity (°API) or Gas BTU Content	1239		1153
7. Producing or Shut-In?	Not Yet Producing		Producing
Production Marginal? (yes or no)	No		Yes
* If Shut-In and oil/gas/water rates of last production	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
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: N/A	Date: Rates:	Date: 10/31/97 Rates: 0.00 Bbls/d / 68 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. NMOC 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 Midkiff TITLE Production Engineer DATE 01-29-98TYPE OR PRINT NAME Kevin Midkiff TELEPHONE NO. (505) 326-9700

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

Energy, Minerals & Natural Resources Department

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

Revised February 21, 1997
Instructions on b
Submit to Appropriate District Off
State Lease - 4 Cop
Fee Lease - 3 Cop

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number'	'Pool Code'	'Pool Name'
30-045-08400	72319/71599	Blanco Mesaverde/Basin Dakota
'Property Code'	'Property Name'	'Well Number'
7091	HARE	17
'GRID No.'	'Operator Name'	'Elevation'
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	5748'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
B	15	29N	10W		900	NORTH	1510	EAST	SAN JU

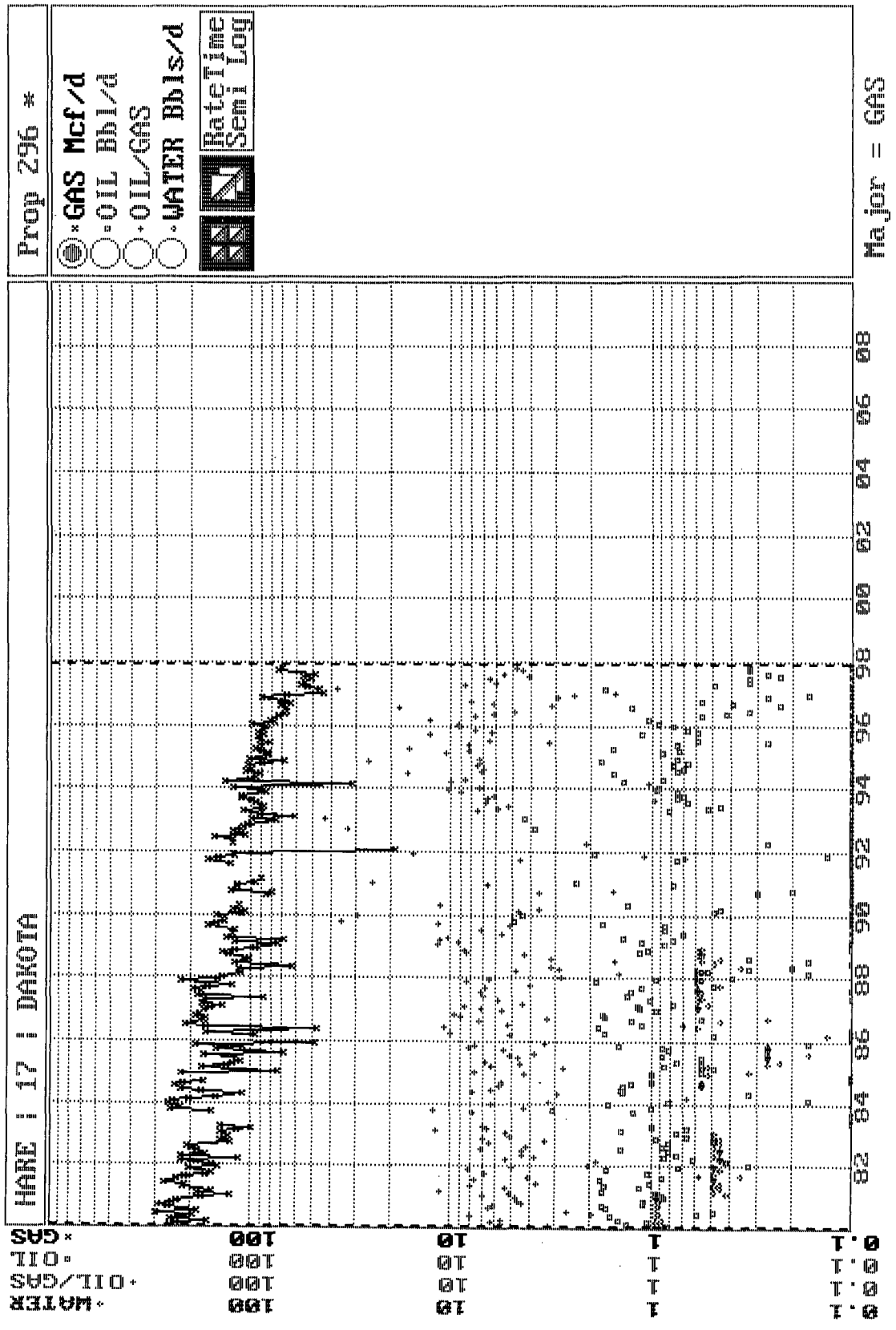
¹¹ Bottom Hole Location If Different From Surface

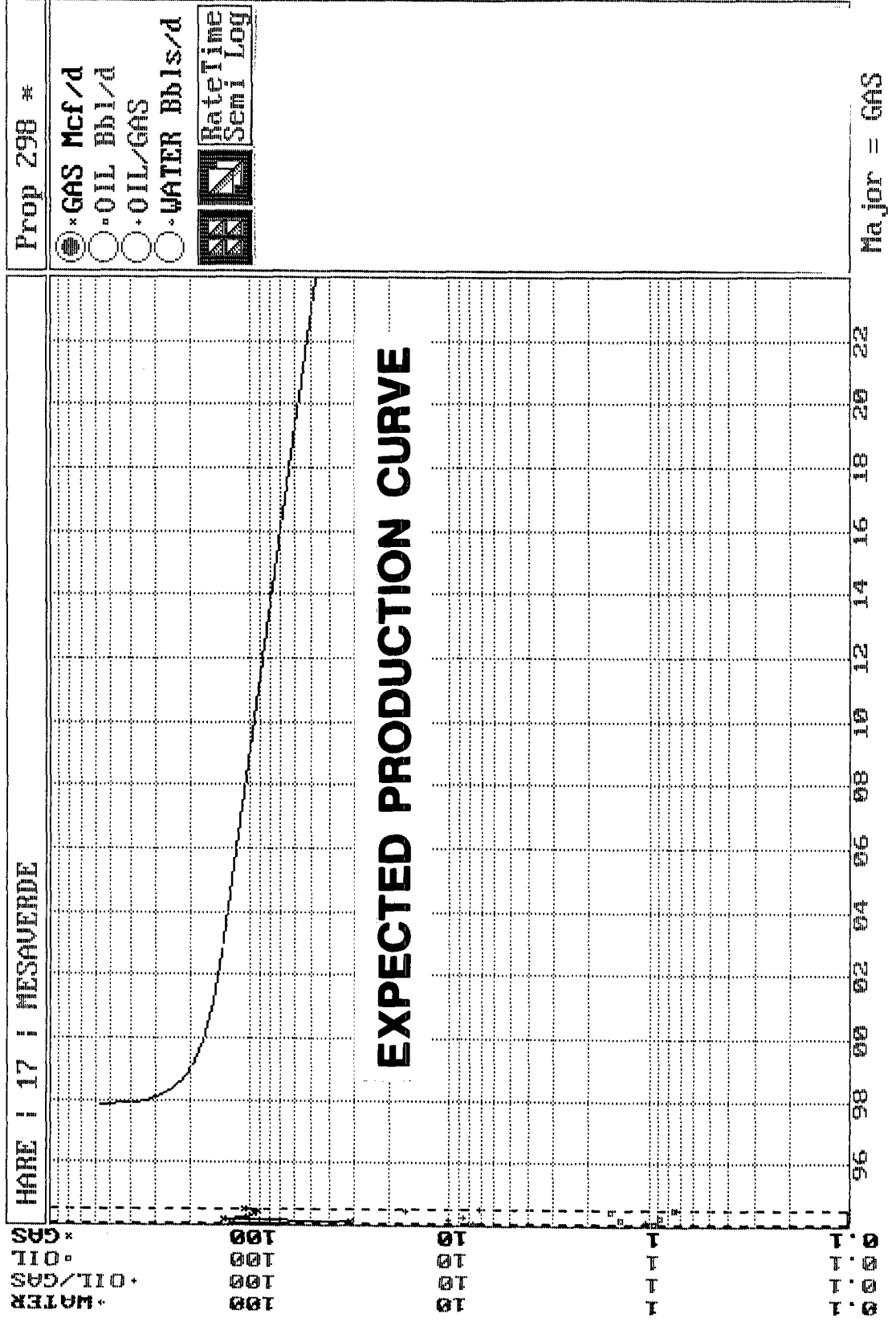
UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County

'Indicated Area'	'Joint or Infill'	'Consolidation Code'	'Order No.'
MV-N/318.38 DK-N/318.38			

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

<p>NOT RESURVEYED, PREPARED FROM A PLAT BY ERNEST V. ECHOHAWK DATED 5-14-62.</p>		<p>¹⁷ OPERATOR CERTIFICAT</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Bradfield</i> Signature Peggy Bradfield Printed Name Regulatory Administrator Title 12-11-97 Date</p>
		<p>¹⁸ SURVEYOR CERTIFICAT</p> <p>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.</p> <p>DECEMBER 21 1997 Date of Survey Signature of Surveyor Certificate Number</p>





Hare #17
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	0.727	GAS GRAVITY	0.684
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.49	%N2	0.28
%CO2	0.53	%CO2	1.52
%H2S	0	%H2S	0
DIAMETER (IN)	4.5	DIAMETER (IN)	2.375
DEPTH (FT)	4288	DEPTH (FT)	6584
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	131	BOTTOMHOLE TEMPERATURE (DEG F)	169
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	267	SURFACE PRESSURE (PSIA)	517
BOTTOMHOLE PRESSURE (PSIA)	298.3	BOTTOMHOLE PRESSURE (PSIA)	606.7
<u>MV-Original *</u>		<u>DK-Original</u>	
GAS GRAVITY	0.727	GAS GRAVITY	0.684
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.49	%N2	0.28
%CO2	0.53	%CO2	1.52
%H2S	0	%H2S	0
DIAMETER (IN)	4.5	DIAMETER (IN)	2.375
DEPTH (FT)	4288	DEPTH (FT)	6584
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	131	BOTTOMHOLE TEMPERATURE (DEG F)	169
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1100	SURFACE PRESSURE (PSIA)	2046
BOTTOMHOLE PRESSURE (PSIA)	1253.8	BOTTOMHOLE PRESSURE (PSIA)	2469.1

* NOTE: Since the Mesaverde is the recompletion target, we do not have pressure data for it in the Hare #17. Therefore, data was taken from the Hare #17E, located in Section 15, T29N, R10W.

Page No.: 2
Print Time: Tue Dec 30 11:12:22 1997
Property ID: 296
Property Name: HARE | 17 | DAKOTA
Table Name: S:\ARIES\1ROS\TEST.DBF

<u>--DATE--</u>	<u>---CUM GAS--</u>	<u>M SIWHP</u>
	<u>Mcf</u>	<u>Psi</u>

06/19/62	0	2046.0	<i>Original</i>
----------	---	--------	-----------------

09/28/70	825433	936.0	
----------	--------	-------	--

04/18/71	900779	887.0	
----------	--------	-------	--

05/26/72	1054076	766.0	
----------	---------	-------	--

09/26/73	1228233	651.0	
----------	---------	-------	--

08/02/75	1477356	653.0	
----------	---------	-------	--

04/17/77	1650374	624.0	
----------	---------	-------	--

05/16/79	1814241	664.0	
----------	---------	-------	--

09/16/81	2003007	680.0	
----------	---------	-------	--

05/02/83	2095472	729.0	
----------	---------	-------	--

12/11/85	2228008	708.0	
----------	---------	-------	--

08/17/88	2362435	652.0	
----------	---------	-------	--

03/21/90	2429918	598.0	
----------	---------	-------	--

04/28/92	2480326	632.0	
----------	---------	-------	--

10/31/97	2654781	517.0	<i>Current Estimated from P/Z data</i>
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Page No.: 2

Print Time: Wed Dec 31 06:23:48 1997

Property ID: 302

Property Name: HARE | 17E | MESAVERDE (OFFSET WELL

Table Name: S:\ARIES\1ROS\TEST.DBF

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

04/30/81	0	1100.0	Original
12/02/81	38929	826.0	
06/09/82	93232	704.0	
05/02/83	154056	638.0	
04/04/84	213070	591.0	
03/12/86	285896	552.0	
05/10/89	443804	446.0	
04/10/91	514333	592.0	
09/10/91	519589	604.0	
05/31/93	588264	361.0	
10/31/97	720045	267.0	CURRENT Estimated from P12 data.

FARMINGTON

1997 MONTHLY PRODUCTION FOR 27242 ✓

PHS030M1

HARE 17

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				02	2		01	1325		1168	15.025			
2				02	52		01	1391		1168	15.025			
3				02			01	1630		1168	15.025			
4				02	15		01	1732		1168	15.025			
5				02	10	56.7	01	1664		1152	15.025			
6	2	F	30	02	10		01	1537	30	1152	15.025			
7	2	F	31	02	7		01	1703	31	1152	15.025			
8	2	F	31	02	8		01	1477	31	1152	15.025			
9	2	F	30	02	10		01	2249	30	1152	15.025			
10	2	F	31	02	10		01	2121	31	1152	15.025			
11														
12														

$2121 \div 31 = 68.4$

PF6 - RETURNS TO ANNUAL DISPLAY

PF3 - TRANSFER TO UPDATE

PF10 - HELP INFORMATION

PF9 - DISPLAY MONTHLY INJECTION

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

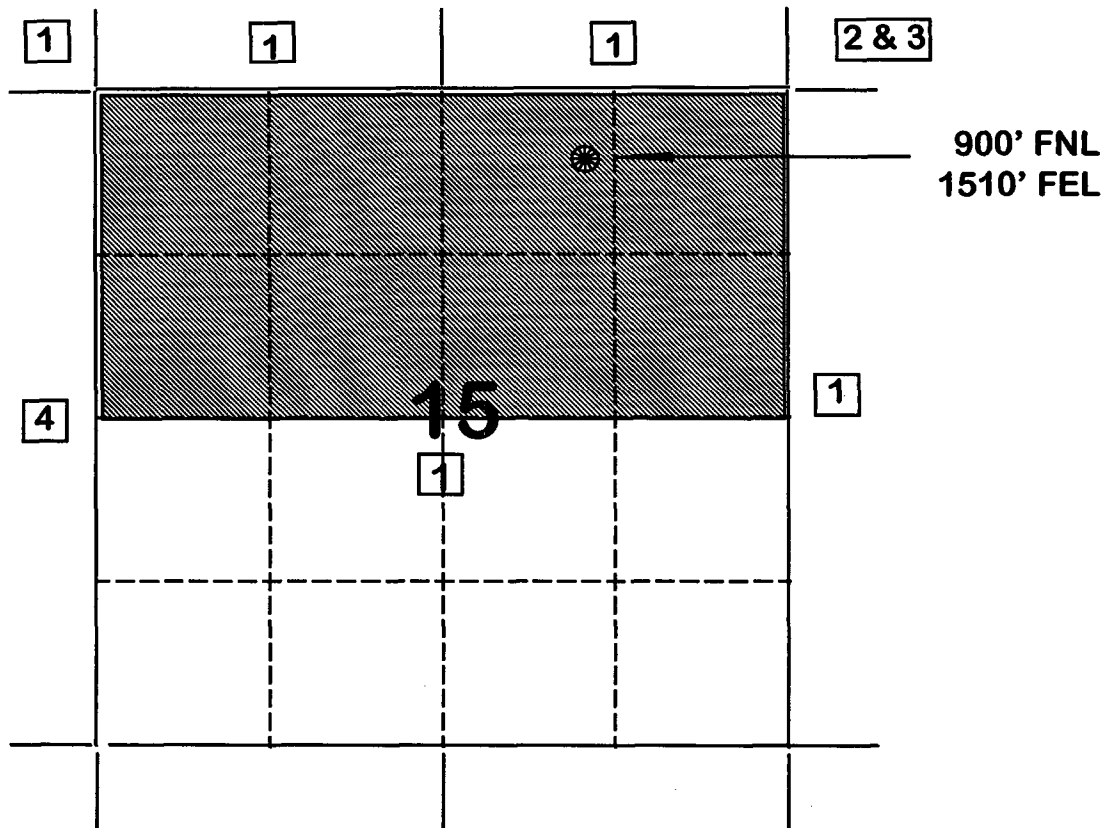
PRS 12/08/97

BURLINGTON RESOURCES OIL AND GAS COMPANY

Hare #17

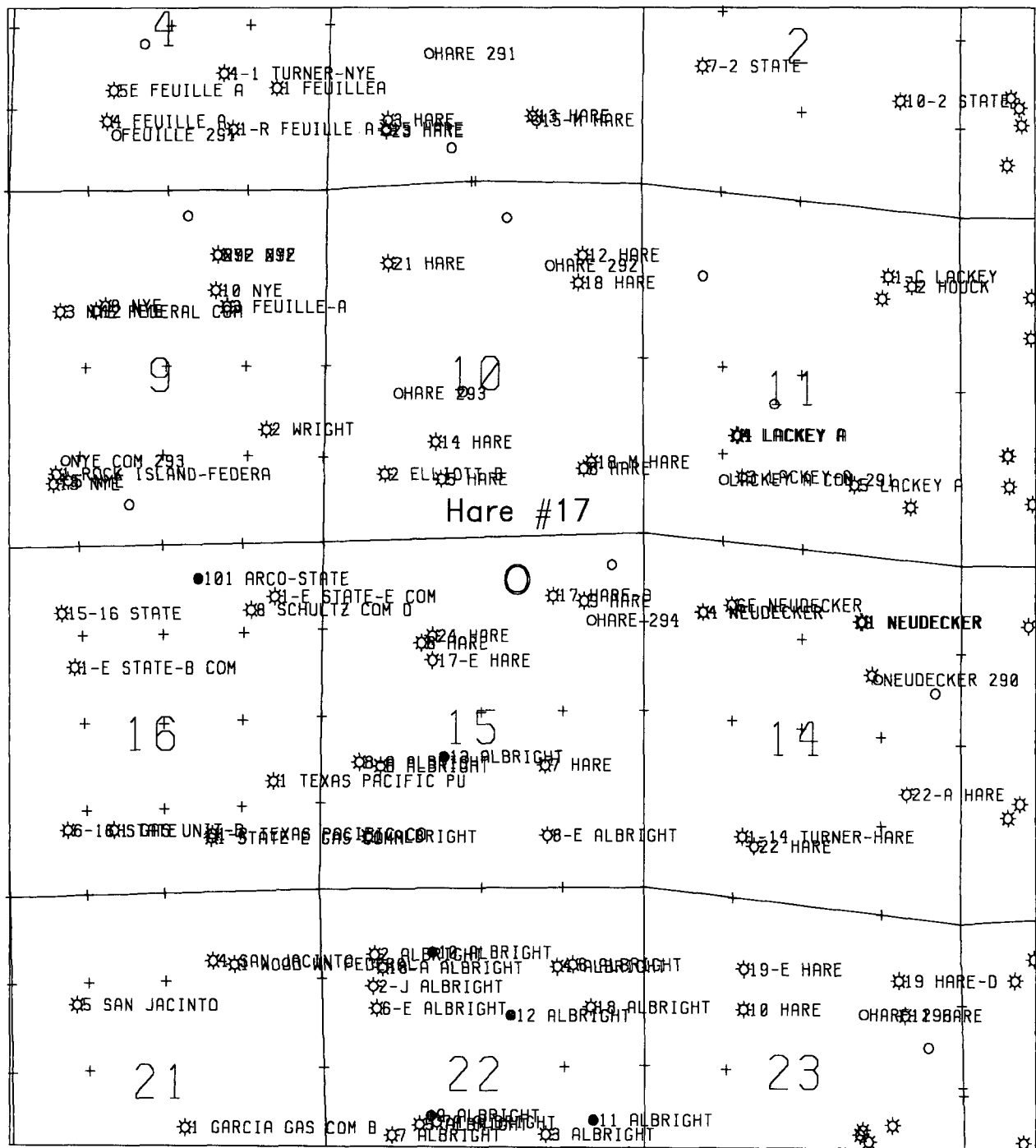
Mesaverde / Dakota Formations Commingle Well

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) Taurus Exploration USA, Inc.
2101 6th Avenue North
Birmingham, Alabama 35203

- 4) Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500



Hare #17
 29N, 10W, 15 B
 MV / DK