

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised March 25, 1999

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

WELL API NO.

30-045-31289

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

SF-079010 *Federal*

7. Lease Name or Unit Agreement  
Name:

NORTHEAST BLANCO UNIT

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other:

2. Name of Operator: Devon Energy Production Co. L.P.

Address of Operator:

Attn: Diane Busch

20 N. Broadway Oklahoma City, OK 73102

3. Well Location

Unit Letter M: 405 feet from the South line and 75 feet from the West line.

Section: 23

Township 31N

Range 7W

NMPM

County San Juan, NM

10. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6447'

11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Down hole commingle ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

Approval is requested to isolate the Basin-Dakota pool, perforate, frac, and test the Blanco-Mesaverde pool, then downhole commingle production from both zones. Please refer to attached exhibits.

*DHC1185A2*

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

SIGNATURE *Diane Busch* TITLE Sr. Operations Technician DATE 4/14/03

Type or print name Diane Busch

Telephone No. (405) 228-4362

(This space for State use)

APPROVED BY *[Signature]*

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3

DATE APR 17 2003

Conditions of approval, if any:

## **ATTACHMENTS TO APPLICATION TO DOWNHOLE COMMINGLE**

The following information is being provided as supporting data for application to downhole commingle production from the following well:

Well: NEBU #325M  
Location: SW SW, Sec. 23, T31N, R7W  
San Juan County, New Mexico

1. The Division order that establishes the two subject pools as pre-approved pools for commingling is Case No. 12346, Order No. R-11363.
2. The pools to be commingled are the Blanco-Mesaverde (72319) and the Basin-Dakota (71599).
3. The subject well is presently completed in the Basin-Dakota pool, the perforated interval being 7850'-8068'. Proposed perforations in the Blanco-Mesaverde are 4360'-5902'.
4. Commingling will not reduce the value of the total remaining production in this well. Produced waters from both the Basin-Dakota and the Blanco-Mesaverde have been found to be compatible, with no evidence of scaling problems on tubulars, or of precipitate fill in the wellbore. The increased volume of gas flowing up the tubing will facilitate the well's ability to unload itself, thus increasing production and reducing potential operational problems.
5. Notice has been sent to all interest owners in the spacing unit by certified mail (return receipt) of Devon Energy's intent to downhole commingle production. A copy of this notice and a list of all interest owners is attached.
6. A copy of this notice of intent to downhole commingle has been sent to the Bureau of Land Management.

## Method of Allocation

Devon Energy recommends the following procedure to allocate downhole commingled production between the Basin-Dakota and the Blanco-Mesaverde pools within the Northeast Blanco Unit:

- The Mesaverde and Basin-Dakota formations will be completed simultaneously.
- A single 2-3/8" tubing string will be run in the well, with a packer isolating the two horizons.
- The Dakota completion will be produced up the tubing string.
- The Mesaverde completion will be produced up the 2-3/8" x 4-1/2" annulus.
- Production from each zone will be measured separately using a 3 phase metering device prior to flowing through a mutual production separator. Total well stream gas will be measured using a conventional orifice plate meter tube located downstream of the production separator.
- The completions will be flow tested separately for approximately 90 days to establish a stabilized rate and trend.
- Following the testing period the packer will be removed and the two pools will be downhole commingled. Total well production will flow through common surface facilities and total produced gas will be measured using a conventional orifice plate meter tube.
- Production will be allocated between the Mesa Verde and Dakota intervals by applying the variable percentage schedule to the daily total well production.

The Variable Percentage Schedule was derived using Mesa Verde and Dakota production type curves. These type curves were generated by normalizing production data from surrounding wells. The variable percentage schedule is required due to the dissimilar decline trends exhibited by the Mesa Verde and Dakota. Figure 1 depicts a typical Mesa Verde – Dakota production allocation. The actual percentages will vary from well to well, depending on well productivity.

Typical MV - DK Downhole Commingle  
Production % Schedule

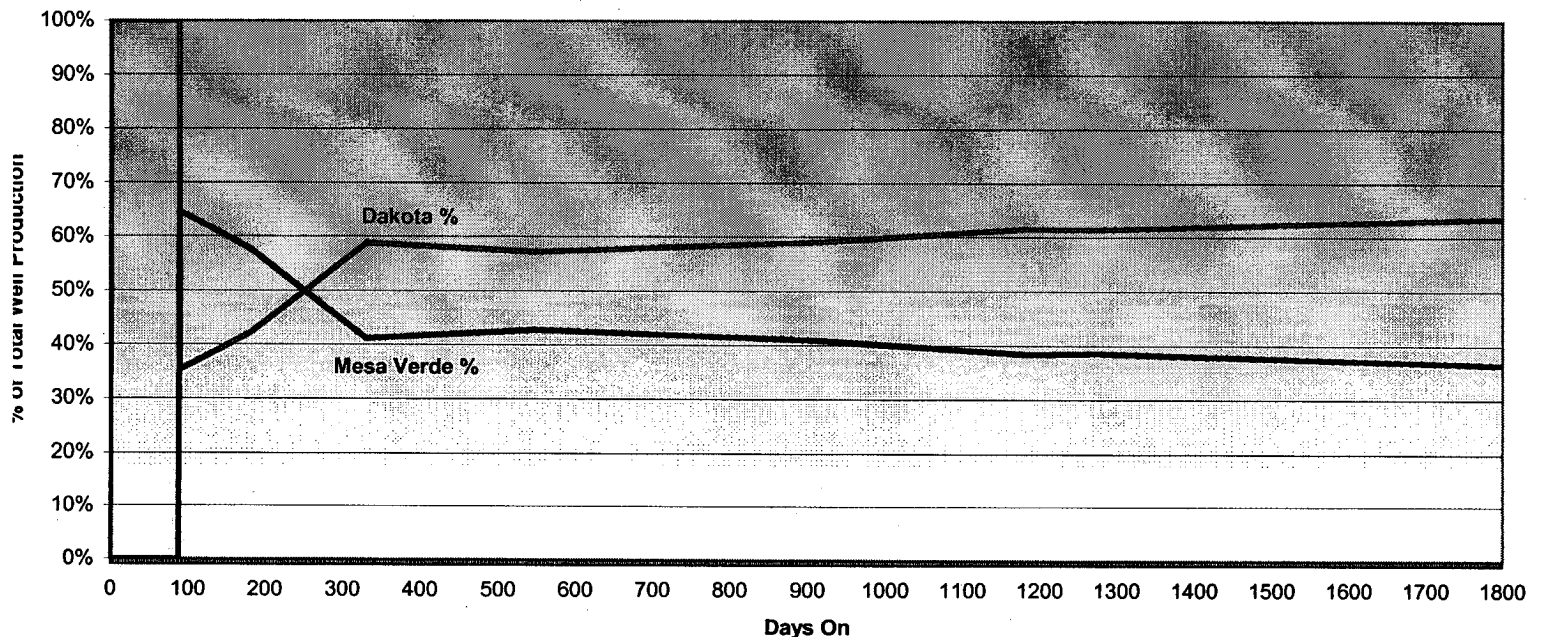


Figure 1

The Basin-Dakota type curve was generated from normalized production of 40 offsetting Basin-Dakota producers. The Basin-Dakota type curve clearly defines the decline rate for the life of a well. Comparison of this type curve with the production schedule obtained by using flow test data demonstrates the reliability of this method for projecting production. (See Figure 2) The curve covers a three and one half year period with a variance in cumulative normalized production of only 165 MCF.

Dakota Type Curve

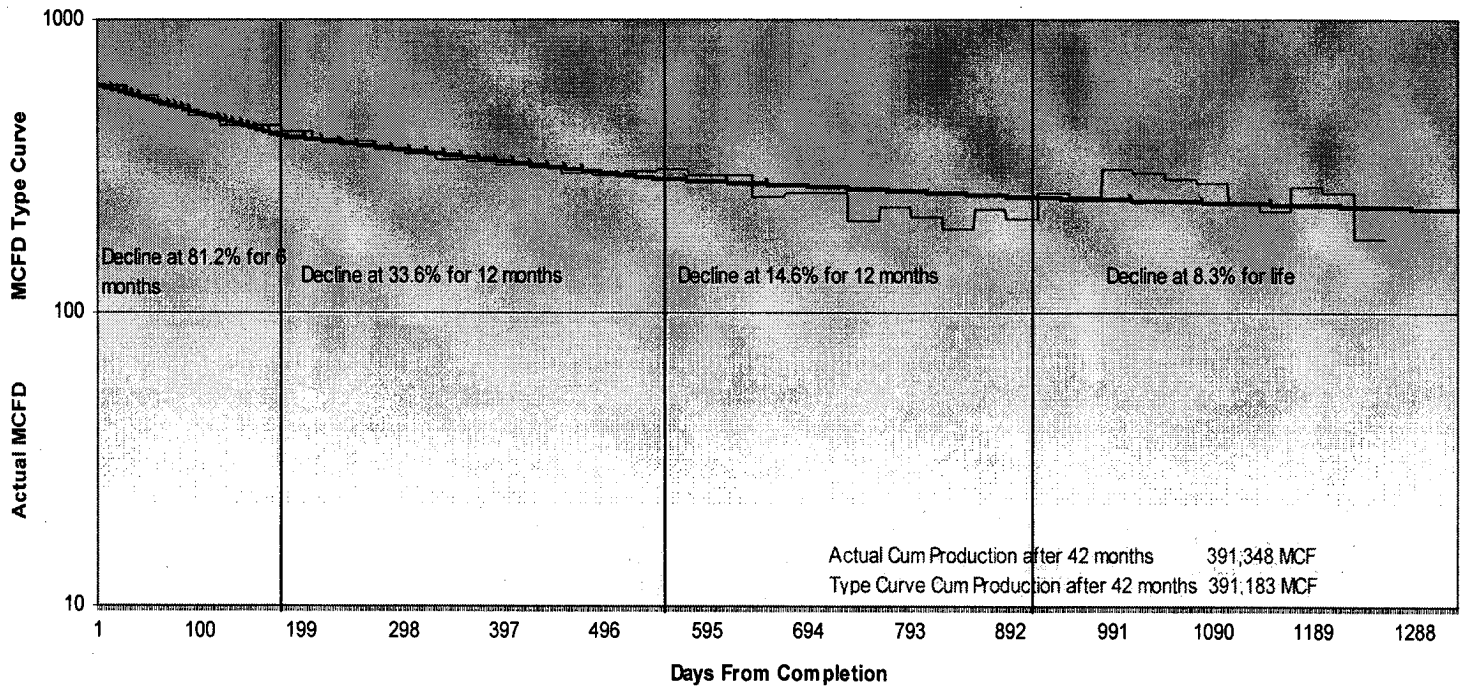


Figure 2

The Blanco – Mesa Verde type curve was generated from normalized production of 12 offsetting Blanco-Mesa Verde producers. Comparison of this type curve with the production schedule obtained by using flow test data demonstrates the reliability of this method for projecting production. (See Figure 3) The curve covers a four year period with a variance in cumulative normalized production of only 3,382 MCF.

### Mesa Verde Type Curve

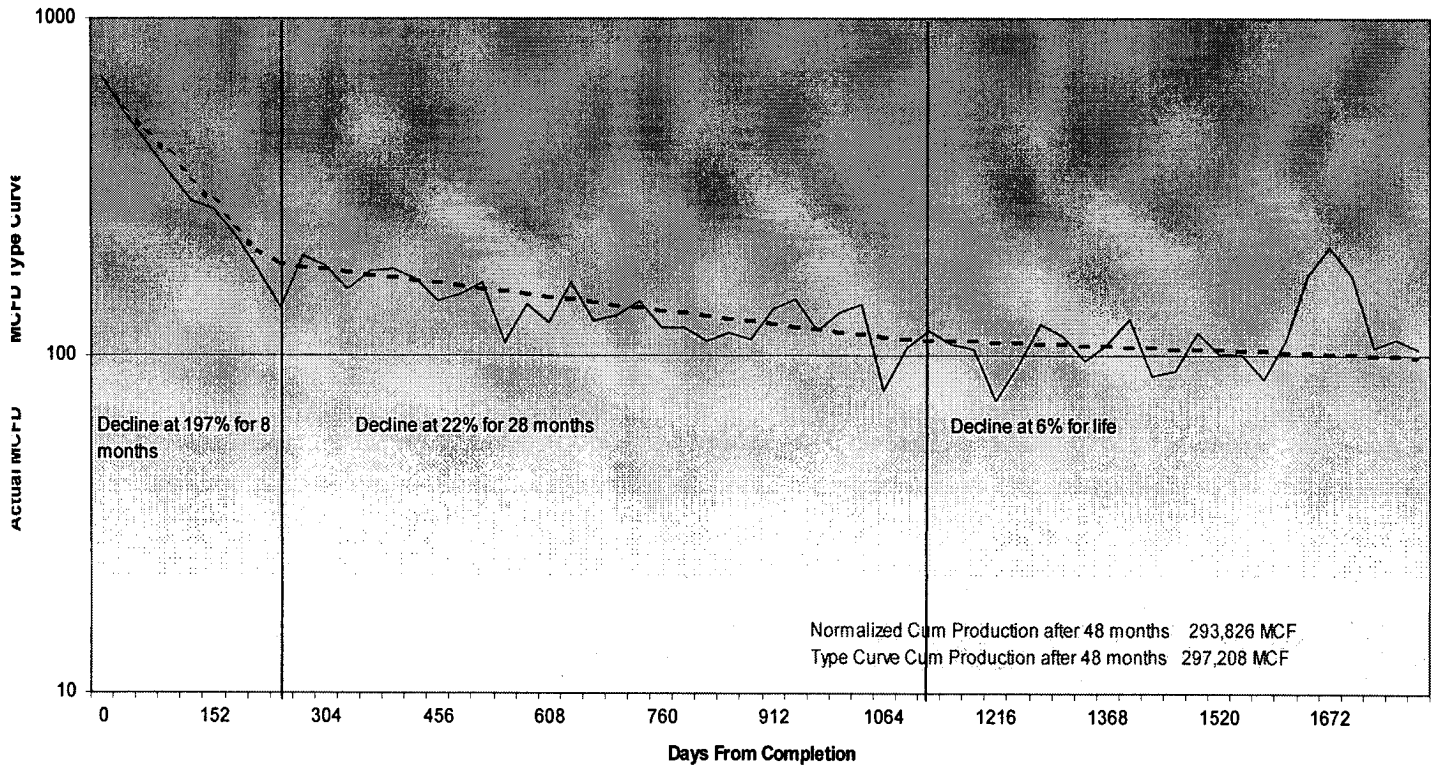


Figure 3



**ENERGY PRODUCTION COMPANY, L.P.**

20 North Broadway, Suite 1500  
Oklahoma City, Oklahoma 73102-8260

Telephone: (405) 235-3611  
Fax: (405) 552-4667

March 17, 2003

IN RE: Permit to Downhole Commingle  
NEBU #325M, API# 30-045-31289  
SW SW, 405' FSL & 75' FWL  
Sec. 23, T31N, R7W  
San Juan County, New Mexico

VIA CERTIFIED MAIL

To all Working Interest Owners:

In accordance with Division Rule 303.C governing downhole commingling, you are hereby notified that Devon Energy Production Company, LP, as operator of the above-captioned well, intends to downhole commingle production from the Blanco-Mesaverde and Basin-Dakota Pools. These are two of the pools pre-approved for commingling by the State of New Mexico Oil Conservation Division of the Energy, Minerals, and Natural Resources Department. As such Devon Energy is required to submit application to the OCD on form C-103 (Sundry Notice) of our intent to commingle the two zones.

The Basin-Dakota and the Blanco-Mesaverde will be completed and tested simultaneously to establish a production potential. The production from the Blanco-Mesaverde and the Basin-Dakota will be allocated on a production trend based formula.

Please direct inquiries concerning this matter to Diane Busch at (405) 228-4362.

Sincerely,  
DEVON ENERGY PRODUCTION COMPANY, LP

Diane Busch  
Sr. Operations Technician

**NORTHEAST BLANCO UNIT - MESAVERDE  
WORKING INTEREST OWNERS**

**Alan Alexander**  
Burlington Resources Oil & Gas Co.  
P. O. Box 4289  
Farmington, NM 87499-4289

**Bryan Anderson**  
BP America Production Company  
PO Box 3092  
Houston, TX 77253-3092

**Jim Ball / Harry Nowak**  
ConocoPhillips Company  
P O Box 2197  
Houston, TX 77252-2197

**Castle, Inc.**  
502 Keystone Drive  
Warrendale, PA 15086

**T. H. McElvain Oil & Gas Ltd. Partnership**  
McElvain Oil & Gas Properties, Inc., GP  
1050 17<sup>th</sup> Street, Suite 1800  
Denver, CO 80265

**NOJV Manager**  
Four Star Oil & Gas Company  
P. O. Box 36366  
Houston, TX 77236

**Jane P. Ladouceur**  
109 Longsford  
San Antonio, TX 78209

**Charles E. Kelly, Ph.D.**  
895 Technology Blvd., Suite 201  
Bozeman, MT 59718-6855

**Robert E. Zimmerman, Jr.**  
P. O. Box 570174  
Houston, TX 77257-0174

**Charles W. Gay**  
c/o James M. Raymond, AIF  
P. O. Box 291445  
Kerrville, TX 78029-1445

**Lorrayn Gay Hacker**  
c/o James M. Raymond, AIF  
P. O. Box 291445  
Kerrville, TX 78029-1445  
James M. Raymond, Trustee

**Maydell Miller Mast Trust**  
P. O. Box 291445  
Kerrville, TX 78029-1445

**James M. Raymond**  
J & M Raymond, Ltd.  
Raymond & Sons I, LLC, GP  
P. O. Box 291445  
Kerrville, TX 78029-1445

**Susanna Phillips Kelly**  
P. O. Box 147  
Cameron, MT 59720

**Susanna P. Kelly Jr**  
8383 Chapman Road  
Bozeman, MT 59715

**Andrew B. Kelly, Jr.**  
2575 Sunset Drive  
Atlanta, GA 30345

**Gary Patterson**  
Wiser Oil Company  
8115 Preston Road, Suite 400  
Dallas, TX 75225

**Darrell Gillen**  
Williams Production Company  
One Williams Center  
P. O. Box 3102 MS 37-4  
Tulsa, OK 74101

**McAfee Oil and Gas LLC**  
103 W. Boyd, Suite A  
Norman, OK 73069

**Kona, LTD**  
16800 Imperial Valley Dr., Suite 270  
Houston, TX 77060

**Bryan Basham**  
Diverse Energy Investments  
1001 McKinney, Suite 520  
Houston, TX 77002

**NORTHEAST BLANCO UNIT - DAKOTA  
NEBU 325M  
WORKING INTEREST OWNERS**

**Alan Alexander  
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P. O. Box 4289  
Farmington, NM 87499-4289**

**Bryan Anderson  
BP America Production Company  
PO Box 3092  
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**Jim Ball / Harry Nowak  
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**Frank C. Davis III  
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Dallas, TX 75225**