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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

**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] or [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] ☒ Office: 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 (W, R, ORR) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statements must be completed by an individual with supervisory capacity

Greg Rink

[Signature]

David J. Drenth

6/5/01

# **ENERGEN**

**R E S O U R C E S**

June 15, 2001

Ms. Lori Wrotenbery  
NMOCD  
1220 South ST. Francis Drive  
Santa Fe, New Mexico 87504

RE: Administrative Approval to Downhole Commingle  
Energen Resources Corporation  
Carson 6  
150' FSL, 835' FWL, Sec. 29, T30N, R4W, N.M.P.M.  
Rio Arriba County, New Mexico  
API # 30-039-26145



Dear Ms. Wrotenbery:

Energen Resources Corporation requests Administrative Approval to add the E Blanco Pictured Cliffs and downhole commingle it with the Blanco Mesa Verde in the subject well. The well is currently producing as a single Mesa Verde completion. Open hole log results show additional potential in the Pictured Cliffs formation similar to offset producing wells. Since the Pictured Cliffs is marginal in this area, it is felt commingling is the most economical way to produce the Pictured Cliffs reserves in this proration unit.

To comply with New Mexico Oil Conservation Rules, Energen Resources Corporation, is submitting the following data for your approval of the proposed commingling:

1. Form C107A – Application for Downhole Commingle
2. C102 – Location plat showing each spacing unit and dedicated acreage
3. Production curves for both the Pictured Cliffs and Mesa Verde
4. Offset operator plat
5. Supporting pressure data
6. Proposed allocation method

In accordance with New Mexico Oil Conservation Division Rule 303D, all offset operators are being notified of this application by certified mail. As an offset operator, working, royalty or overriding royalty owner, and you have no objection to this application, you do not have to respond to this notification.

If additional information is needed, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary W. Brink".

Gary W. Brink  
Production Superintendent

GWB/vd

cc: NMOCD – Aztec, BLM – Farmington, Offset Operators

District I  
1625 N. French Drive, Hobbs, NM 88240

District II  
811 South First Street, Artesia, NM 88210

District III  
Well  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

Oil Conservation Division  
1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

APPLICATION TYPE  
\_X\_ Single

\_\_\_ Establish Pre-Approved Pools  
EXISTING WELLBORE  
\_X\_ Yes \_\_\_ No

APPLICATION FOR DOWNHOLE COMMINGLING

Energen Resources Corporation

2198 Bloomfield Highway, Farmington, New Mexico 87401

Operator Address  
Carson 6 M Sec 29 T30N R4W Rio Arriba

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 162928 Property Code 21185 API No. 3003926145 Lease Type: \_X\_ Federal \_\_\_ State \_\_\_ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	East Blanco Pictured Cliffs		Blanco Mesaverde
Pool Code	72400		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	4183-4435		5165-6833
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	529 Est		385 Calc
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1080 Btu		1050 Btu
Producing, Shut-In or New Zone	New Zone		Producing
Date 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: n/a	Date: Rates:	Date: 4/1/2001 Rates: 0/81/1
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % %	Oil Gas % %	Oil Gas % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes \_X\_ No \_\_\_  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes \_X\_ No \_\_\_

Are all produced fluids from all commingled zones compatible with each other? Yes \_X\_ No \_\_\_

Will commingling decrease the value of production? Yes \_\_\_ No \_X\_

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes \_\_\_X\_\_\_ No \_\_\_

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

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 working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE [Signature] TITLE District Superintendent DATE 6/15/01

TYPE OR PRINT NAME GARY BRINK TELEPHONE NO. (505) 325-6800

District I  
190 Box 1980, Hobbs, NM 88241-1980  
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 & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-26145	<sup>2</sup> Pool Code 72400/72319	<sup>3</sup> Pool Name E Blanco PC/ Blanco Mesa Verde
<sup>4</sup> Property Code 21185	<sup>5</sup> Property Name CARSON	<sup>6</sup> Well Number 6
<sup>7</sup> OGRID No. 162928	<sup>8</sup> Operator Name ENERGEN RESOURCES, INC.	<sup>9</sup> Elevation 7437'

<sup>10</sup> Surface Location


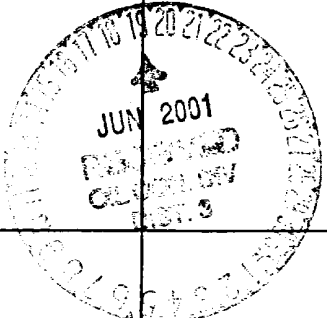
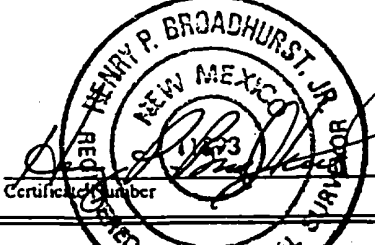
UL or lot no. M	Section 29	Township 30N	Range 4W	Lot Idn	Feet from the 150'	North/South line SOUTH	Feet from the 835'	East/West line WEST	County RIO ARriba
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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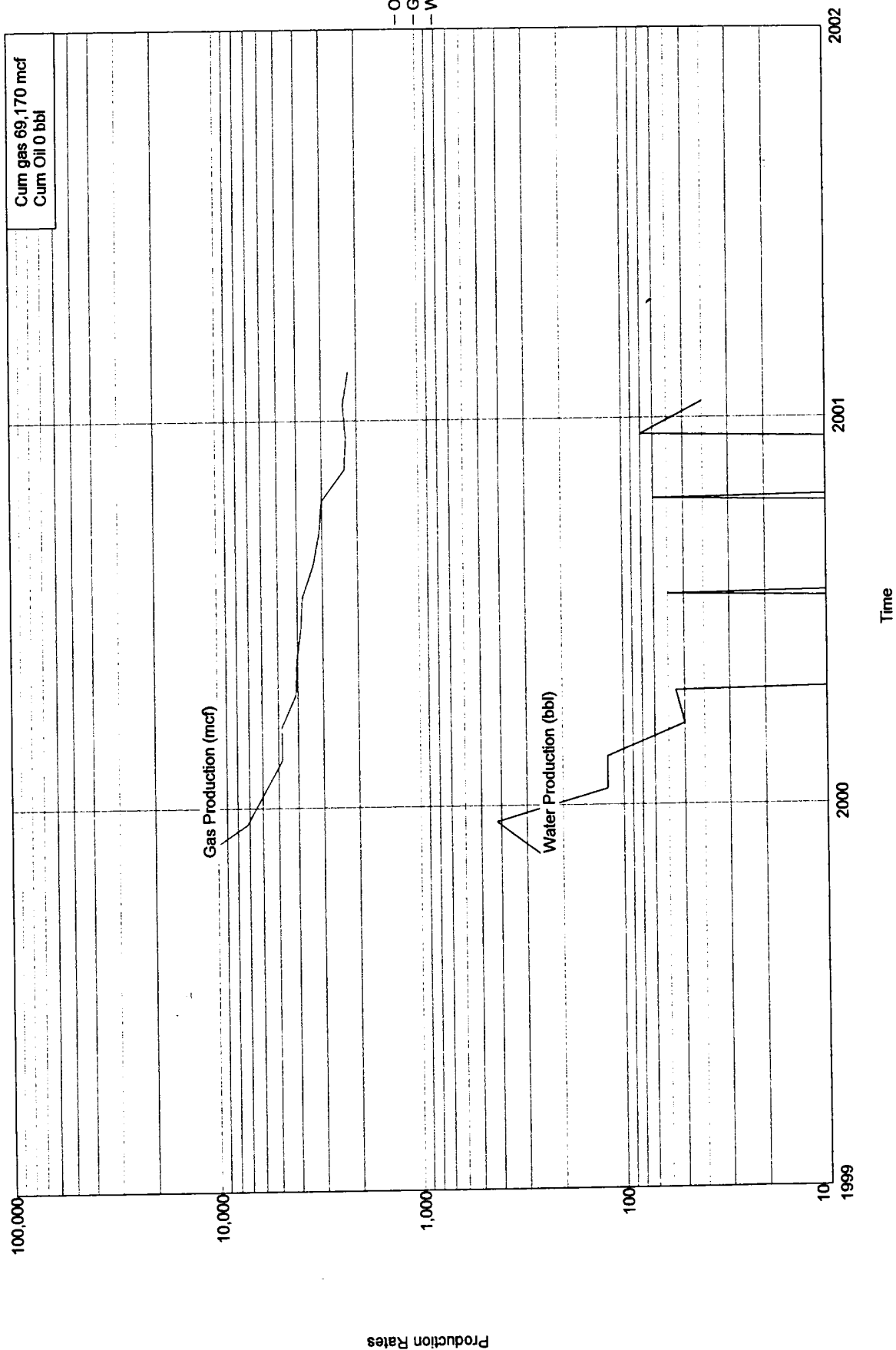
<sup>12</sup> Dedicated Acres 160/320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<sup>16</sup> WEST 5280.00' Section 29 835' 150' WEST	5277.36'		<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief   Signature Gary W. Brink Printed Name Production Superintendent Title 6/13/01 Date
			
5280.00' 5280.00'	5280.00'		<sup>18</sup> SURVEYOR CERTIFICATION 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 belief.  12/04/98 Date of Survey Signature and Seal of Professional Surveyor: 
	5280.00'		

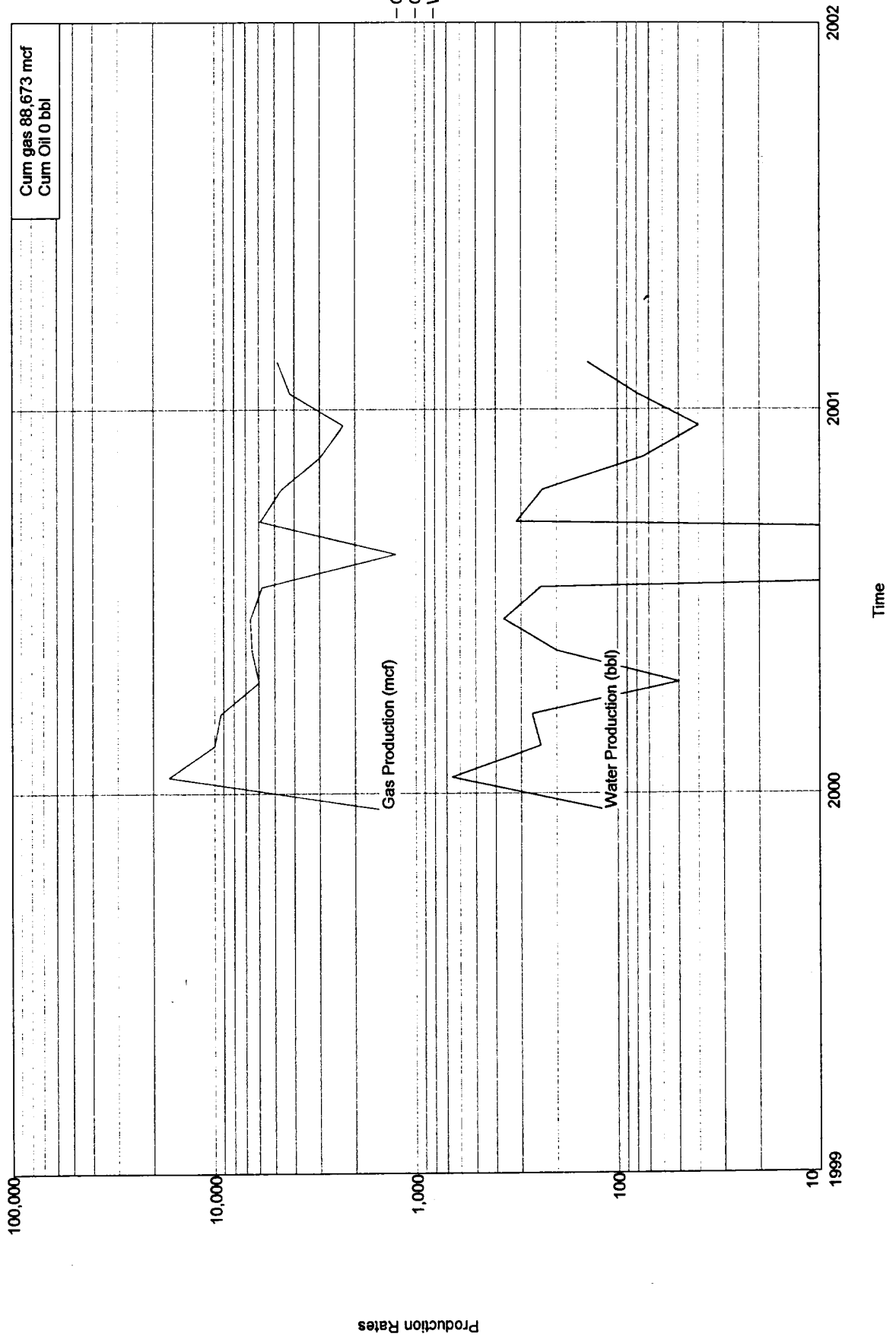
Lease Name: CARSON  
 County, State: RIO ARBA, NM  
 Operator: TAURUS EXPLORATION USA INCORPORATED  
 Field: BLANCO  
 Reservoir: MESAVERDE  
 Location: 29 30N 4W SE SW SW

# Carson 6



Lease Name: CARSON  
 County, State: RIO ARBA, NM  
 Operator: TAURUS EXPLORATION USA INCORPORATED  
 Field: BLANCO EAST  
 Reservoir: PICTURED CLIFFS  
 Location: 29 30N 4W SE NE NW

# PC Type Curve



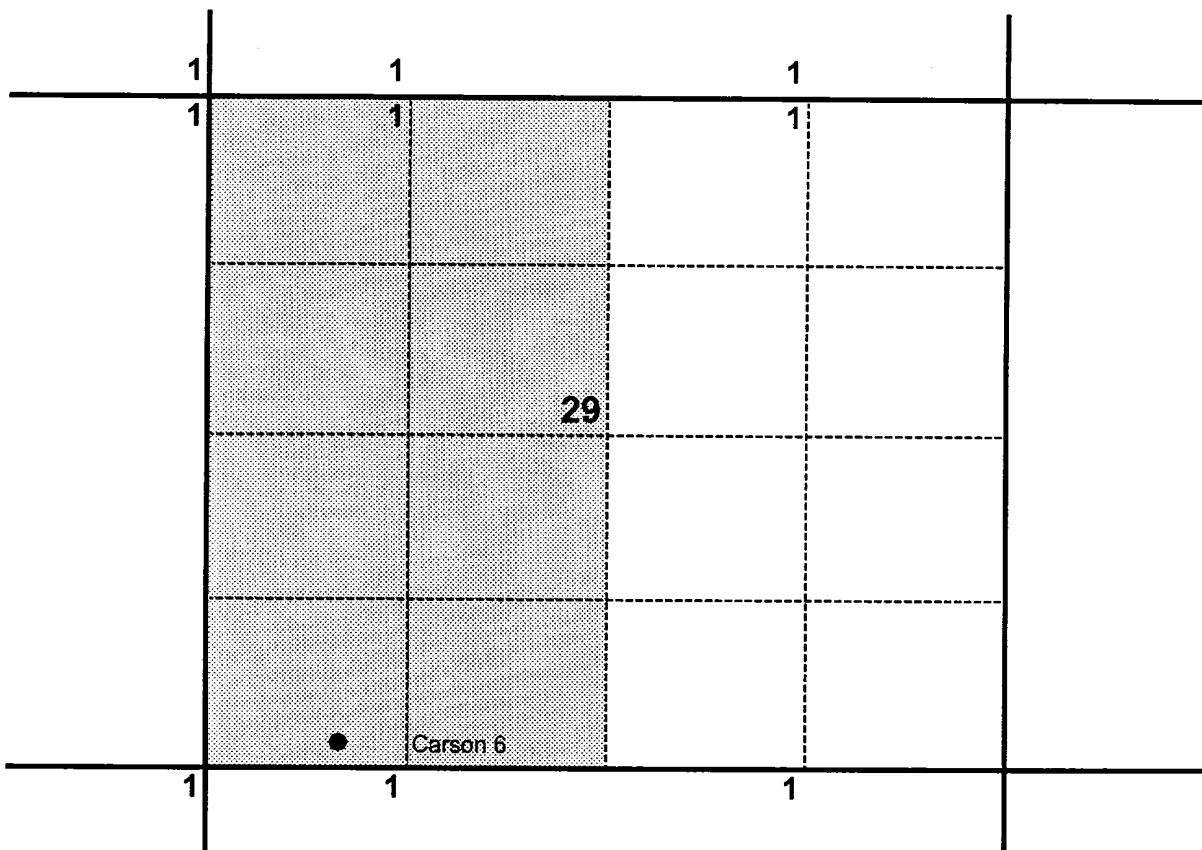
# Energen Resources Corp.

## Carson 6

### Offset Operator / Ownership Plat

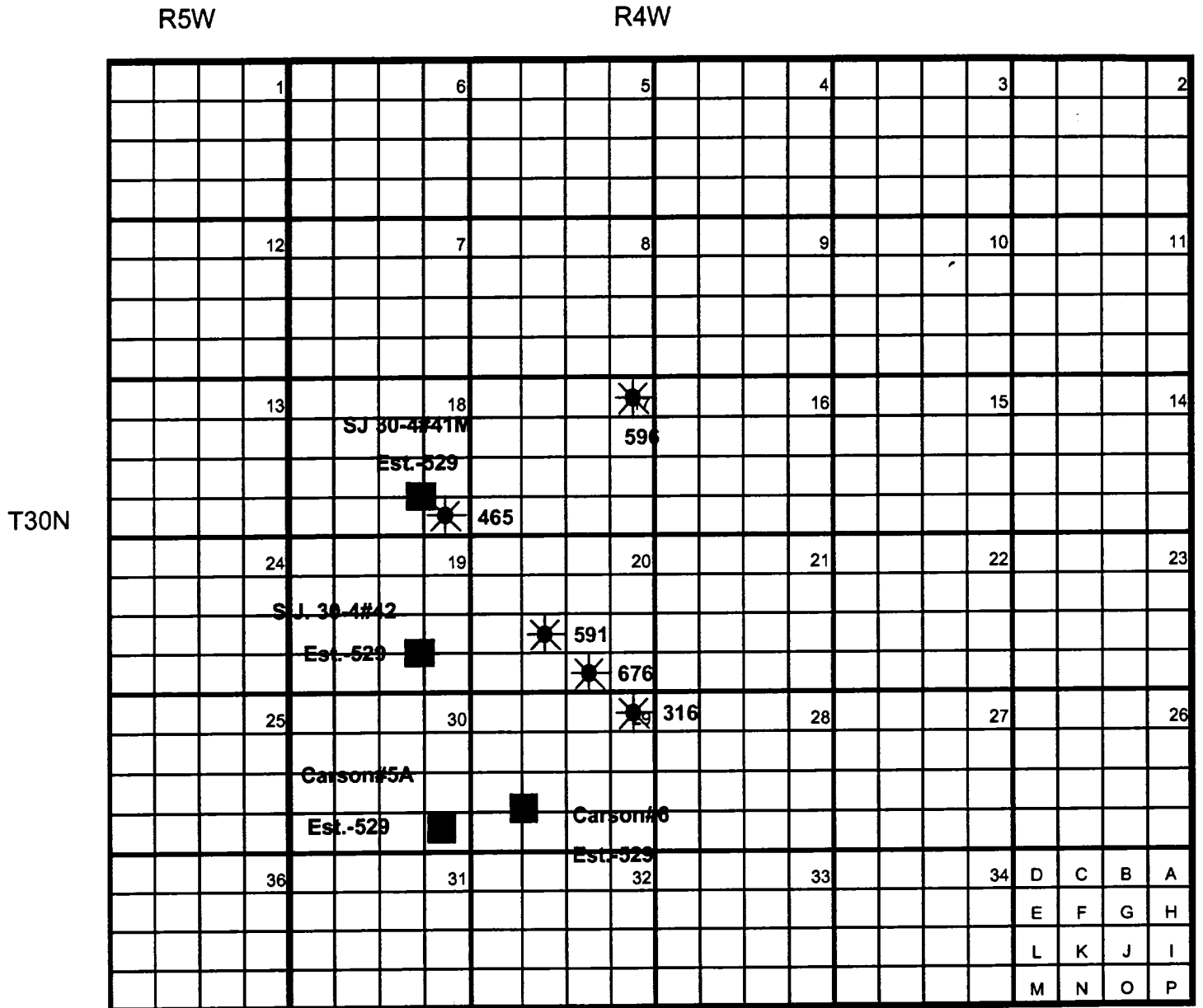
E. Blanco Pictured Cliffs/ Blanco Mesa Verde  
Downhole Commingling

Township 30 N, Range 4 W



1) Energen Resources

# Pictured Cliffs Current Shut-In Bottom Hole Pressure



PC Payadds



PC Well

Current BHP, psia



## Carson #6

### Proposed Allocation Method

Produce total well stream for 60 days following Pictured Cliffs pay add  
Pay add projected to add 100 MCFD from Pictured Cliffs

Total Stream = X

Mesaverde flow rate = 81 MCFD

MV Allocation =  $81/X$  as a percentage

PC allocation =  $(X-81)/X$  as a percentage

Rates will be reported to NMOCD- Aztec for final allocation percentage determination