

6/13/02	SUSPENSE NA	ENGINEER WJ	LOGGED IN KW	TYPE DHC	APP NO. 216451280
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
 NSL  NSP  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

- [D] Other: Specify \_\_\_\_\_

[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] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Brad Peterson  
 Print or Type Name

*Brad Peterson*  
 Signature

Reservoir Engineer  
 Title

6/12/02  
 Date

btpeter@ppco.com  
 e-mail Address

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

District II  
811 South First Street, Artesia, NM 88210

**Oil Conservation Division**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

District III  
1000 Rio Brazos Road, Aztec, NM 87410

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

**PHILLIPS PETROLEUM COMPANY**

**5525 Hwy. 64, Farmington, NM 87401**

Operator

Address

**San Juan 29-5 Unit**

**#21**

**Unit G, Section 8, T29N, R5W**

**Rio Arriba**

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 17654 Property Code 0009256 API No. 30-039-07667 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal		Blanco Mesaverde
Pool Code	71629		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Est. Apprx. 3317' - 3495'		4339' - 5864'
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)	1000 psi (est.)		500 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	950 BTU		1100 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: New Zone Rates:	Date: Rates:	Date: 5/23/02 Rates: 300 mcf/d & 0.1 bwp/d, 1 bop/d
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 ** / **

**NOTE: We will be utilizing the subtraction method on this well until we can establish a good fixed allocation percentage. See attached letter of explanation within application.**

**ADDITIONAL DATA**

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

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

Will commingling decrease the value of production? Yes  No

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  No

NMOCD Reference Case No. applicable to this well: R-10770

**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 Brad Peterson TITLE Reservoir Engineer DATE June 6, 2002

TYPE OR PRINT NAME Brad Peterson TELEPHONE NO. (505) 599-3486 e-mail- btpeter@ppco.com



**PHILLIPS PETROLEUM COMPANY**

FARMINGTON, NEW MEXICO 87401  
5525 HWY. 64 NBU 3004

June 11, 2002

New Mexico Oil & Gas Conservation Div.  
1220 South St. Francis Drive  
Sante Fe, New Mexico 87504

Application for Downhole Commingling  
On the San Juan 29-5 # 21

Dear Sirs,

Phillips Petroleum is proposing to commingle the Fruitland Coal and Mesaverde formations on the San Juan 29-5 # 21 (Reference Case No. R-10770). Currently the Mesaverde is producing independently 300 MCFD. Pending commingle approval, the Fruitland Coal will be completed. The Fruitland Coal will be tested for 4-6 months before commingling it with the Mesaverde.

A production forecast has been determined from stabilized Mesaverde production. After the zones are commingled, Phillips Petroleum is proposing to utilize the subtraction method for 36 months or until Fruitland Coal production stabilizes before a ratio between the Fruitland Coal and Mesaverde is established.

Future Fruitland Coal water and gas production were estimated by examining offset low rate Fruitland Coal wells. An initial gas rate of 200 mcf/d and an initial water rate of 5 bwp/d were determined.

Economics for commingling the Fruitland Coal with the Mesaverde and for drilling a new well to complete the Fruitland Coal show completing the Fruitland Coal in this area is only economical by completing the Fruitland Coal in existing Mesaverde wells.

Attached is the C-102 and acreage dedication, Mesaverde gas rate vs time plot for the 29-5 # 21 showing the 36 month forecast, a 36 month Mesaverde gas production forecast, estimated Fruitland Coal gas rate vs time plot for the 29-5 # 21 showing offset production, and economics for commingling the Fruitland Coal with the Mesaverde and drilling and completing the Mesaverde.

Sincerely,

PHILLIPS PETROLEUM

Brad Peterson  
Reservoir Engineer

cc: OCD – Aztec  
BLM – Farmington  
NM Commissioner of Public Lands – Santa Fe

District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Avenue, Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-102  
 Revised August 15, 2000  
 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 30-039-07667		<sup>2</sup> Pool Code 71629		<sup>3</sup> Pool Name Basin Fruitland Coal	
<sup>4</sup> Property Code 009256		<sup>5</sup> Property Name San Juan 29-5 Unit			<sup>6</sup> Well Number 21
<sup>7</sup> OGRID No. 017654		<sup>8</sup> Operator Name PHILLIPS PETROLEUM COMPANY			<sup>9</sup> Elevation 6640'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	29N	5W		1650'	North	1550'	East	Rio Arriba

<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
G									

<sup>12</sup> Dedicated Acres 320 E/2	<sup>13</sup> Joint or Infill Y	<sup>14</sup> Consolidation Code U	<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

16	SECTION 8	SF-078410 920.88 acres	1650'	1550'	<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. <i>Patsy Clugston</i> Signature Patsy Clugston Printed Name Sr. Regulatory/Proration Clerk Title 6-5-02 Date
					<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. See original C102 Date of Survey date 8/29/55 Signature and Seal of Professional Surveyor: Signed by James P. Leese Certificate Number 1463

Well Location and Acreage Dedication Plat

Section A.

Date **APRIL 24, 1962**

Operator **EL PASO NATURAL GAS COMPANY** Lease **SAN JUAN 29-5 UNIT SFO78410**  
 Well No. **21** Unit Letter **G** Section **8** Township **29-N** Range **5-W** NMPM  
 Located **1650** Feet From **NORTH** Line **1550** Foot From **EAST** Line  
 County **RIO ARRIBA** G. L. Elevation **6640** Dedicated Acreage **320** Acres  
 Name of Producing Formation **MESA VERDE** Pool **BLANCO M.V.**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?  
 Yes  No
2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes  No  If answer is "yes", Type of Consolidation.
3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner	Land Description
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**RECEIVED**  
**MAY 11 1962**

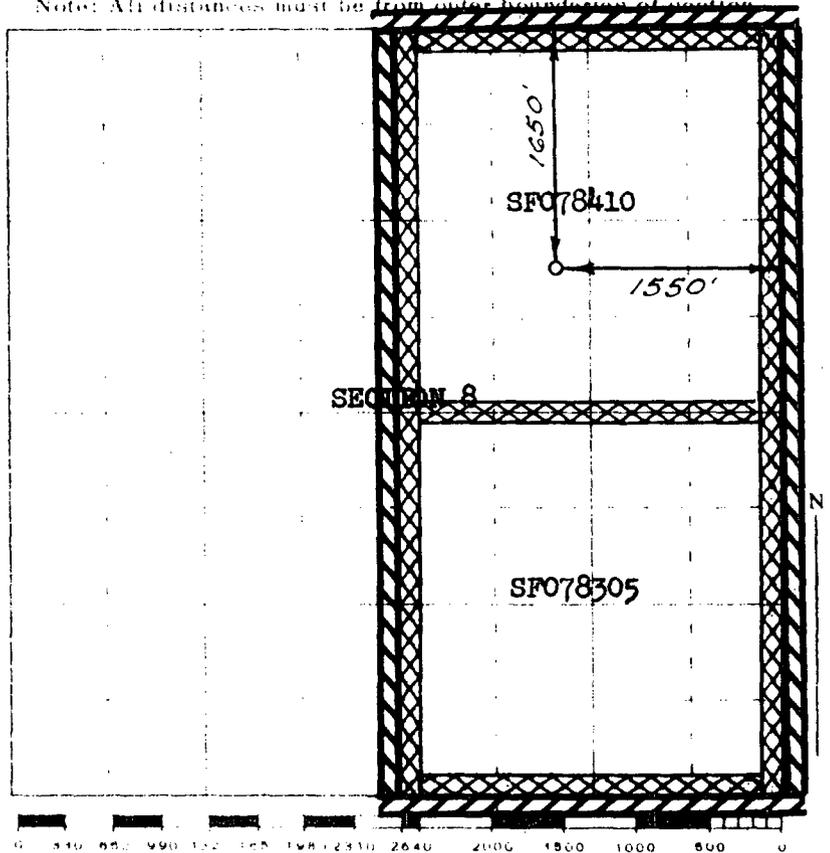
U. S. GEOLOGICAL SURVEY  
 FARMINGTON, NEW MEXICO

Section B.

Note: All distances must be from outer boundaries of section

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

**El Paso Natural Gas Company**  
 (Operator)  
 Original Signed **D. W. Meehan**  
 (Representative)  
**Box 990**  
 (Address)  
**Farmington, New Mexico**



Scale 4 inches equal 1 mile

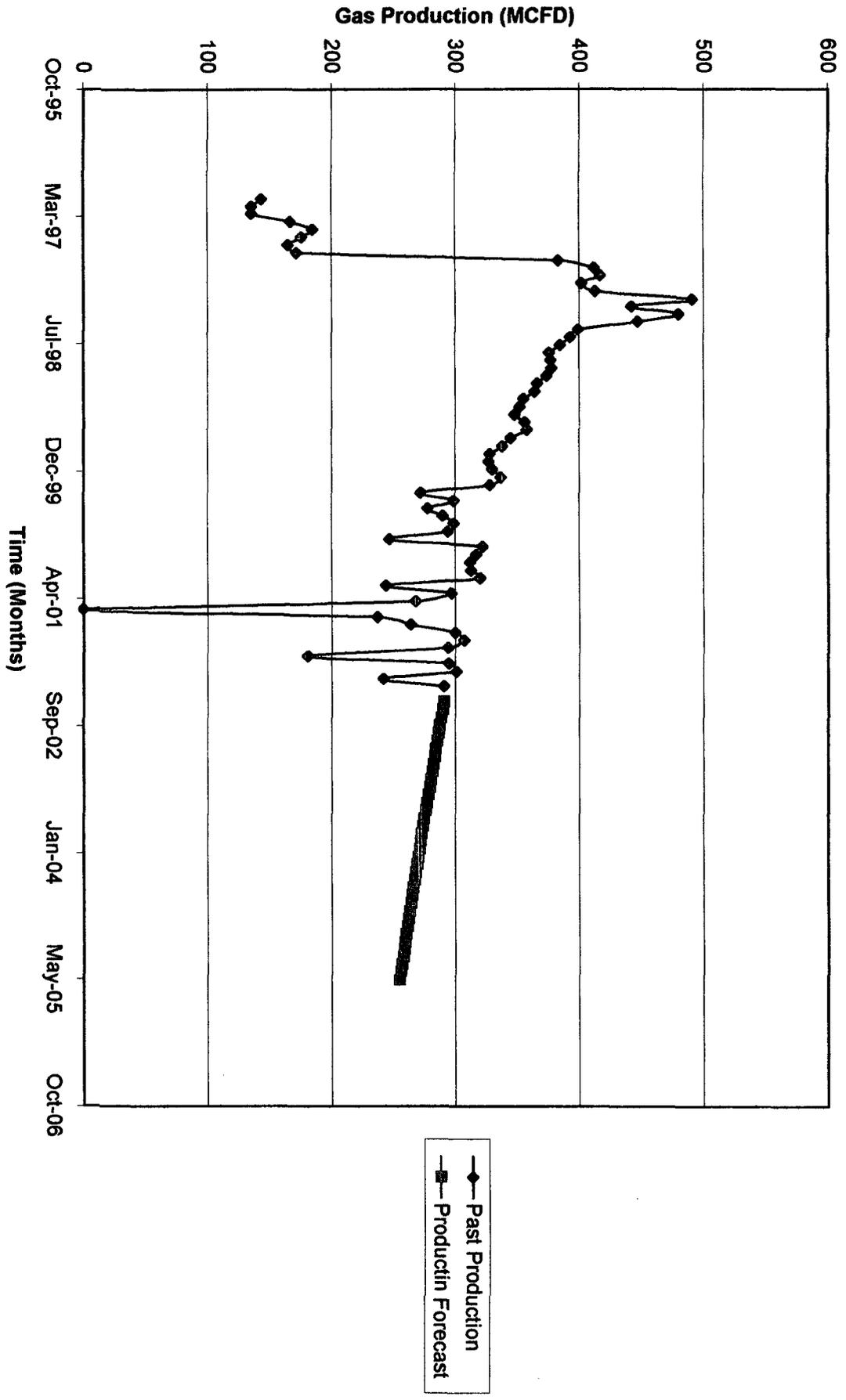
This plat is reissued to show corrected location.

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)  
 THE STATE ENGINEER & LAND SURVEYOR  
 FARMINGTON, NEW MEXICO

Date Surveyed **AUGUST 29, 1955**  
**James P. Leese**  
 Registered Professional Engineer and/or Land Surveyor

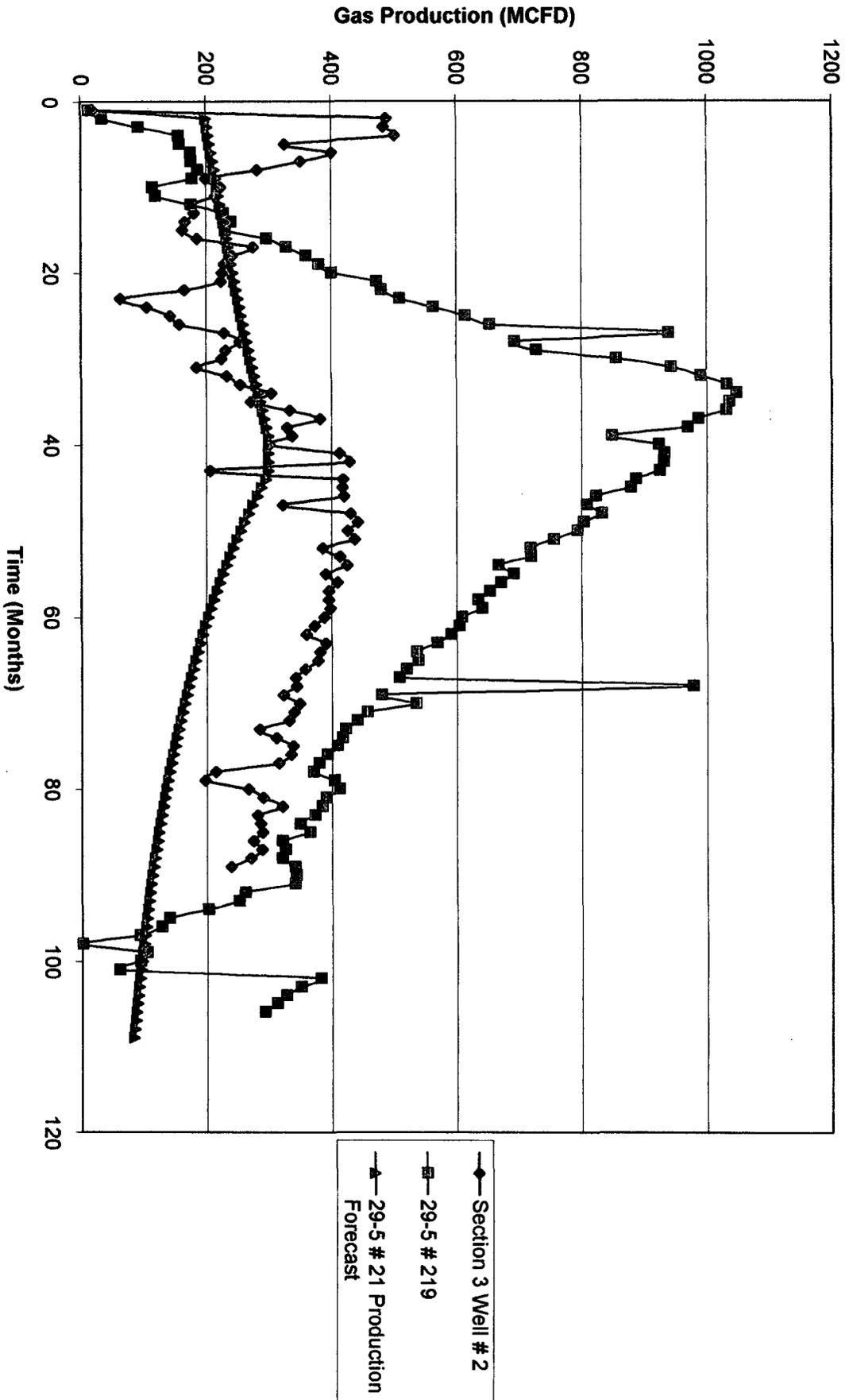
### 29-5 # 21 Mesaverde Production and Forecast



## 29-5 # 21 Mesa Verde Production Forecast

Month	Year	Average Rate (MCFD)	Monthly Volume (MMCF)
6	2002	290.63	8.72
7	2002	289.53	8.98
8	2002	288.43	8.94
9	2002	287.34	8.62
10	2002	286.26	8.87
11	2002	285.18	8.56
12	2002	284.11	8.81
1	2003	283.05	8.77
2	2003	281.99	7.9
3	2003	280.93	8.71
4	2003	279.89	8.4
5	2003	278.85	8.64
6	2003	277.81	8.33
7	2003	276.78	8.58
8	2003	275.76	8.55
9	2003	274.74	8.24
10	2003	273.72	8.49
11	2003	272.72	8.18
12	2003	271.72	8.42
1	2004	270.72	8.39
2	2004	269.73	7.82
3	2004	268.74	8.33
4	2004	267.76	8.03
5	2004	266.79	8.27
6	2004	265.82	7.97
7	2004	264.86	8.21
8	2004	263.9	8.18
9	2004	262.94	7.89
10	2004	262	8.12
11	2004	261.05	7.83
12	2004	260.11	8.06
1	2005	259.18	8.03
2	2005	258.25	7.23
3	2005	257.33	7.98
4	2005	256.41	7.69
5	2005	255.5	7.92
6	2005	254.58	7.64

# 29-5 # 21 Production Forecast for Fruitland Coal



## 29-5 # 21 Fruitland Coal Completion Economics

	Commingle with Mesaverde Case	New Drill Case
Rate of Return	25.6%	-0.1%
Payout	3.2 years	12.6
Net Present Value at 13%	\$58,500	- \$182,000
Capital Outlay	\$129,500	\$421,000
Net Investment/Barrel of Oil Equivalent	\$3.27	\$10.63

The economics were ran using the same production forecast for the Fruitland Coal. Economics assumed the well would be fraced for both cases.