

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.**

Nancy Oltmanns		Regulatory Specialist	5/10/05
Print or Type Name	Signature	Title	Date
		Nancy.oltmanns@cdxgas.com	
		e-mail Address	



CDX Gas, LLC  
4801 N. Butler Avenue, Suite 2000  
Farmington, NM 87401  
Main: 505-326-3003  
Fax: 505-325-4007

May 9, 2005

Mr. William Jones  
New Mexico Oil Conservation Division  
Engineering Bureau  
1220 So. St. Francis Drive  
P.O. Box 6429  
Santa Fe, New Mexico 87505

RE: Application for Exception to Rule 303-A  
Downhole Commingling  
Jicarilla B #7E  
API No. 30-039-22895  
Basin Dakota, Blanco Mesaverde, and Otero Chacra Pools  
810' FNL, 1850' FWL, Unit C Sec 16-T26N-R5W  
Rio Arriba County, New Mexico

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Dear Mr. Jones;

CDX RIO, LLC hereby request administrative approval to downhole commingle production from the Basin Dakota and Otero Chacra Pools with production from the Blanco Mesaverde Pools in the Jicarilla B #7E.

The Jicarilla B #7E was originally completed as a dual producer in the Dakota and Chacra formations. In October, 1995, approval was obtained to downhole commingle the Dakota and Chacra.

The Mesaverde is marginal in the area and not substantial enough to justify drilling a new well, however, commingling with existing production through an existing wellbore can capture the reserves. Adding the Mesaverde production will have no detrimental effects and the fluids have no abnormal components that would prohibit commingling or promote the creation of emulsions or scale.

As an analogy, the southwest offset well Jicarilla A #8E (SE Sec 17, T26N, R5W) is approximately 1 mile away and currently commingled down hole in the Dakota, Mesaverde, and Chacra. This well has been down hole commingled and producing since 2002 with no production problems or loss of value. During review of the Jicarilla A #8E, it was determined that the Mesaverde and Chacra production had been inadvertently switch and thus reported incorrectly. The allocation for this well has been determined on the corrected allocations for the Jicarilla A #8E.

All royalty owners in the affected spacing units have identical interests in all production horizons, therefore notification by certified mail is not required.

When the Mesaverde is completed it will be isolated and tested thru tubing. The subtraction method, combined with the existing allocation of the Dakota and Chacra, will be used to determine the new allocation for the commingled production. The existing Dakota, Chacra allocations are:

Chacra	Oil 0%	Gas 44%
Dakota	Oil 100%	Gas 56%

Current production from the well is 75 Mcfd and 2 bopd. Estimated production from the Mesaverde is 110 Mcfd and 1 bopd (using the analogy offset data from Jicarilla A #8E, production curves attached). New allocations will then be:

Mesaverde	Oil 34%	Gas 58%
Chacra	Oil 0%	Gas 18%
Dakota	Oil 66%	Gas 24%

Attached to aid in your review are plats showing the location of the well and offset wells in the same formation, a recent production plot for the commingled zones and historical plots for the Chacra and Dakota production, and form C-102 showing the location and spacing units.

This spacing unit is located on an Indian lease (Jicarilla Contract 109). A copy of this application package will be sent to the BLM / Jicarilla Tribe requesting their consent.

Should have any question concerning this application please contact the undersigned at (505) 326-3003.

Sincerely

David C. Smith  
Production Engineer  
CDX GAS, LLC  
505-326-3003 ext 2804  
[dave.smith@cdxgas.com](mailto:dave.smith@cdxgas.com)

cc Mr. Steve Wells, BLM  
Rich Corcoran, CDX Land  
R. Johnston, CDX Op Mgr.  
Fred Vigil, Jicarilla Oil & Gas Admin.  
ConocoPhillips, Land

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

**District II**  
1301 W. Grand Avenue, Artesia, NM 88210

**District III**  
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 June 10, 2003

**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

**APPLICATION FOR DOWNHOLE COMMINGLING**

CDX RIO, LLC Operator 4801 North Butler Ave., Suite 2000, Farmington, NM 87401 Address **DAC-1156-A**

JICARILLA CONTRACT B Lease #7E Well No. C-16-T26N-R5W Unit Letter-Section-Township-Range RIO ARRIBA County

OGRID No 222374 Property Code 33460 API No. 30-039-22895 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	OTERO CHACRA ✓	BLANCO MESAVERDE ✓	BASIN DAKOTA ✓
Pool Code	82329 ✓	72319 ✓	71599 ✓
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	4,064 – 4,148	4,819 – 5,515	7,356 – 7,541
Method of Production (Flowing or Artificial Lift)	Plunger Lift	Plunger Lift	Plunger Lift
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)	550 psi (estimated)	750 psi (estimated)	550 psi (estimated)
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1200 BTU	1200 BTU	1210 BTU
Producing, Shut-In or New Zone	PRODUCING	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: 5/4/05 35 mcf Rates: 0 bopd 3 bwpd	Date: 110 mcf (estimated) Rates: 1 bopd (est) 3 bwpd (est)	Date: 5/4/05 45 mcf Rates: 2 bopd 1 bwpd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 0% Gas 18%	Oil 34% Gas 58%	Oil 66% Gas 24%

**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: \_\_\_\_\_

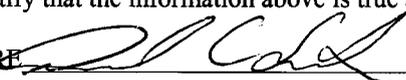
Attachments:  
 C-102 for each zone to be commingled showing its spacing unit and acreage dedication.  
 Production curve for each zone for at least one year. (If not available, attach explanation.)  
 For zones with no production history, estimated production rates and supporting data.  
 Data to support 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  TITLE Production Engineer DATE 5/4/05  
 TYPE OR PRINT NAME David C. Smith TELEPHONE NO. (505) 326-3003  
 E-MAIL ADDRESS dave.smith@cdxgas.com

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 June 10, 2003  
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 30-039-22895		<sup>2</sup> Pool Code 72319		<sup>3</sup> Pool Name BLANCO MESAVERDE	
<sup>4</sup> Property Code 33460		<sup>5</sup> Property Name JICARILLA B			<sup>6</sup> Well Number 7E
<sup>7</sup> OGRID No. 222374		<sup>8</sup> Operator Name CDX RIO, LLC			<sup>9</sup> Elevation 6602' GR

<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
C	16	26N	R5W		810	NORTH	1850	WEST	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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

	<p>Section 16</p>	<p><sup>17</sup> <b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p>Signature: <i>[Signature]</i></p> <p>Printed Name: David C. Smith</p> <p>Title and E-mail Address: Production Engineer, dave.smith@cdxgas.com</p> <p>Date: 5/4/05</p>
		<p><sup>18</sup> <b>SURVEYOR CERTIFICATION</b> <i>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.</i></p> <p>10/1/81</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>ON FILE</p> <p>Certificate Number</p>

**OF CONSERVATION DIVISION**

P. O. BOX 2008

SANTA FE, NEW MEXICO 87501

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

Form C-107  
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

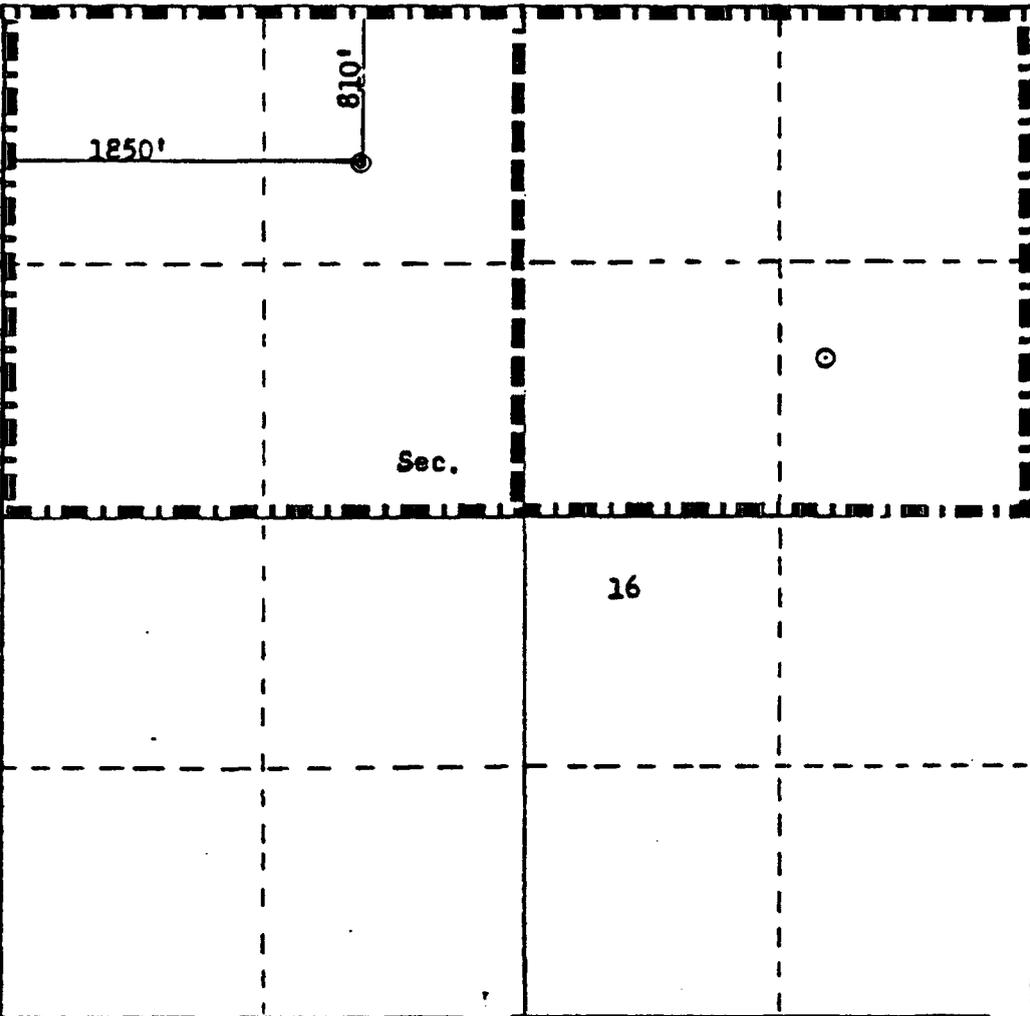
Operator <b>TENNECO OIL COMPANY</b>			Lease <b>JICARILLA "B"</b>		Well No. <b>7E</b>
Unit Letter <b>C</b>	Section <b>16</b>	Township <b>26N</b>	Range <b>5N</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well:					
<b>810</b>	feet from the <b>North</b>	line and	<b>1850</b>	feet from the <b>West</b>	line
Ground Level Elev. <b>6602</b>	Producing Formation <b>Dakota</b>	Pool <b>Basin Dakota / Und. Chaco</b>	Dedicated Acreage <b>320/160</b> Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes     No    If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

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

*Don H. Morrison*

Name	<b>Don H. Morrison</b>
Position	<b>Production Analyst</b>
Company	<b>Tenneco Oil Company</b>
Date	<b>10-13-81</b>

*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 knowledge and belief.*

Date Surveyed	<b>October 14, 1981</b>
Registered Professional Engineer and Land Surveyor	<i>[Signature]</i> <b>Fred B. Kerr Jr.</b>
Certificate No.	<b>10000</b>

AD BK @

**NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT**

**OIL CONSERVATION DIVISION**

**ADMINISTRATIVE ORDER DHC-1156**

Amoco Production Company  
P.O. Box 800  
Denver, Colorado 80201-0800

**RECEIVED**  
OCT 11 1985

Attention: Ms. Pamela Staley

OIL CONSERVATION DIVISION

*Jicarilla 'B' Well No. 7E  
Unit C, Section 16, Township 26 North, Range 5 West, NMPM,  
Rio Arriba County, New Mexico.  
Otero Chacra (Gas) and Basin Dakota (Prorated Gas) Pools*

Dear Ms. Staley:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 30 barrels per day, and total water production shall not exceed 60 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Otero Chacra (Gas) Pool	Oil 0%	Gas 44%
Basin Dakota (Prorated Gas) Pool	Oil 100%	Gas 56%

*Administrative Order DHC-1156*  
*Amoco Production Company*  
*October 4, 1995*  
*Page 2*

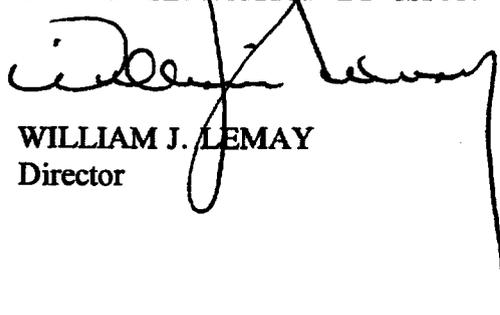
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REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 4th day of October, 1995.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



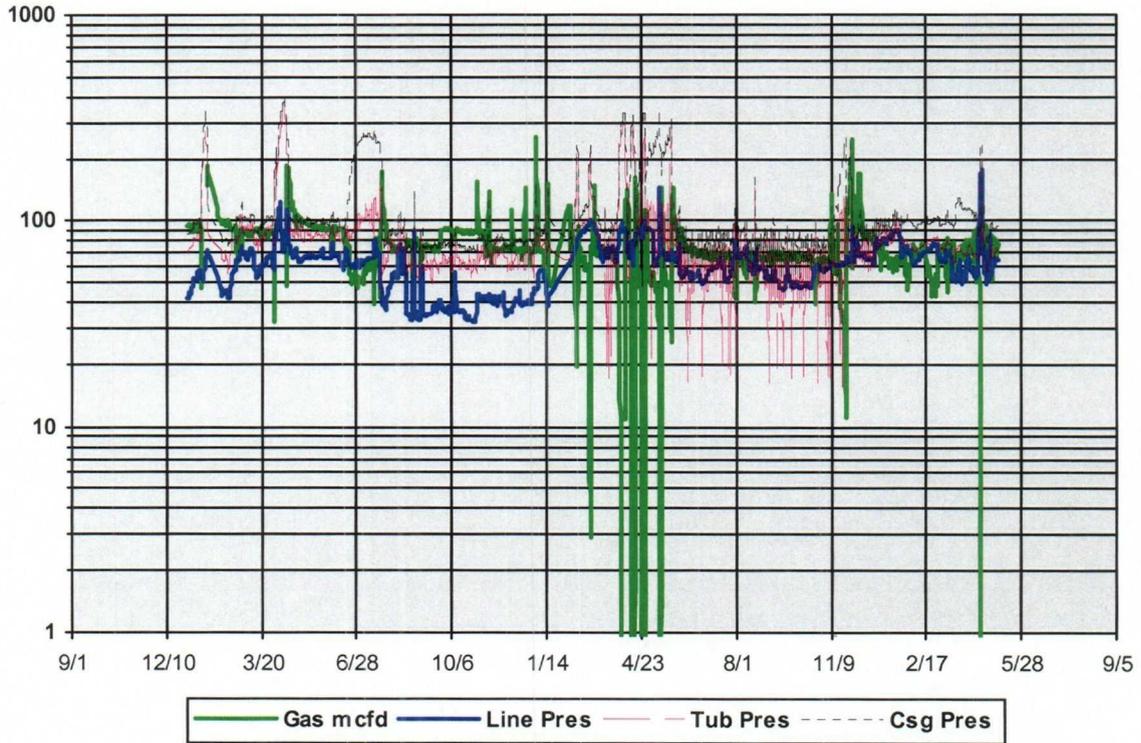
WILLIAM J. LEMAY  
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec ✓  
Bureau of Land Management - Farmington

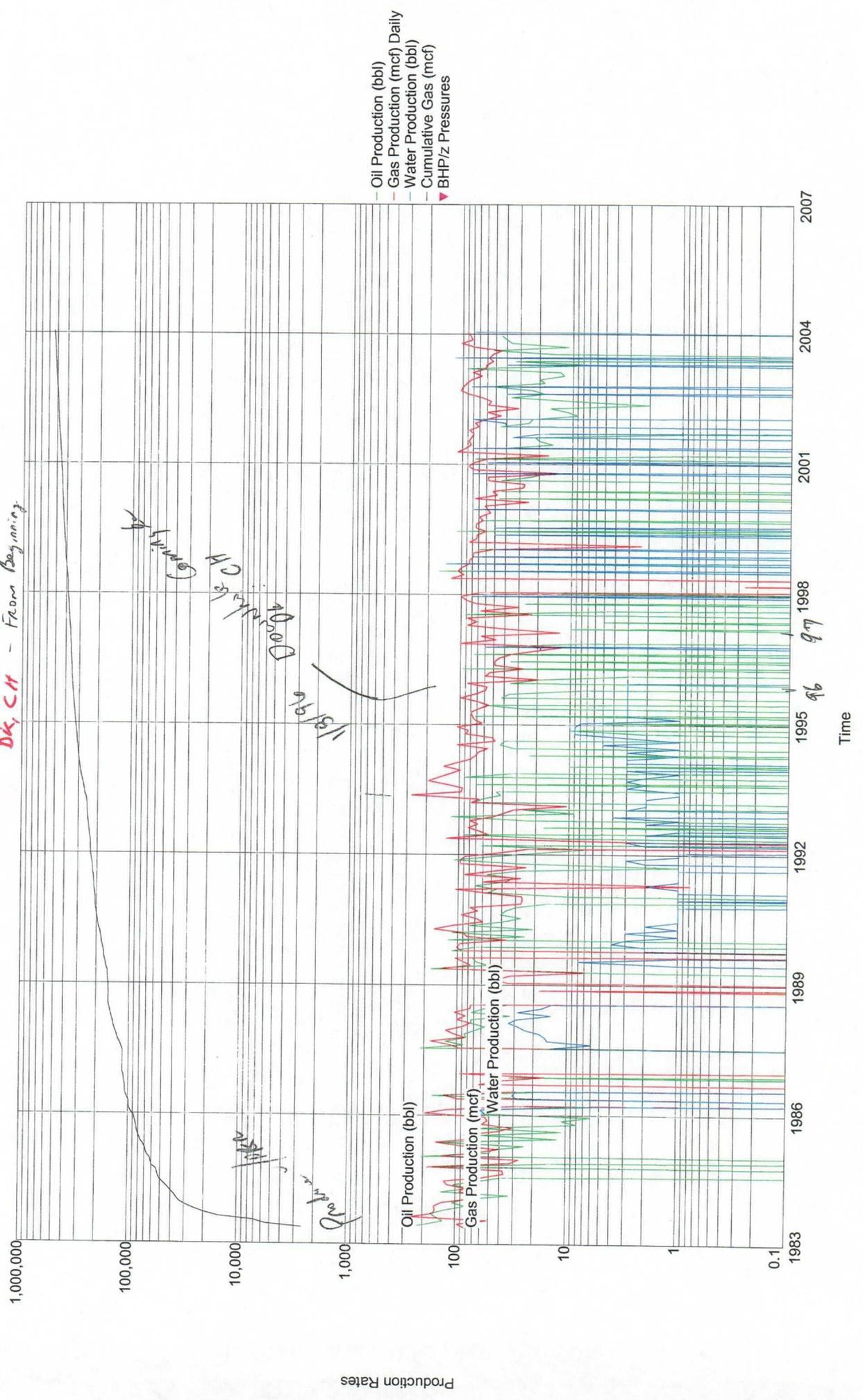
'JICARILLA B 007E-DK/CH API: 30-039-22895' (11/28/02 - 5/4/05)



MAX BU psi -  $\frac{Csg}{389}$   $\frac{H_2}{362}$

Lease Name: JICARILLA B - 7E  
 County, State: RIO ARBA, NM  
 Operator: CDX RIO LIMITED LIABILITY CORPORATIO  
 Field: MULTIPLE  
 Reservoir: MULTIPLE  
 Location:

JICARILLA B - (MULTIPLE) B-7E  
 DK, CH - From Beginning

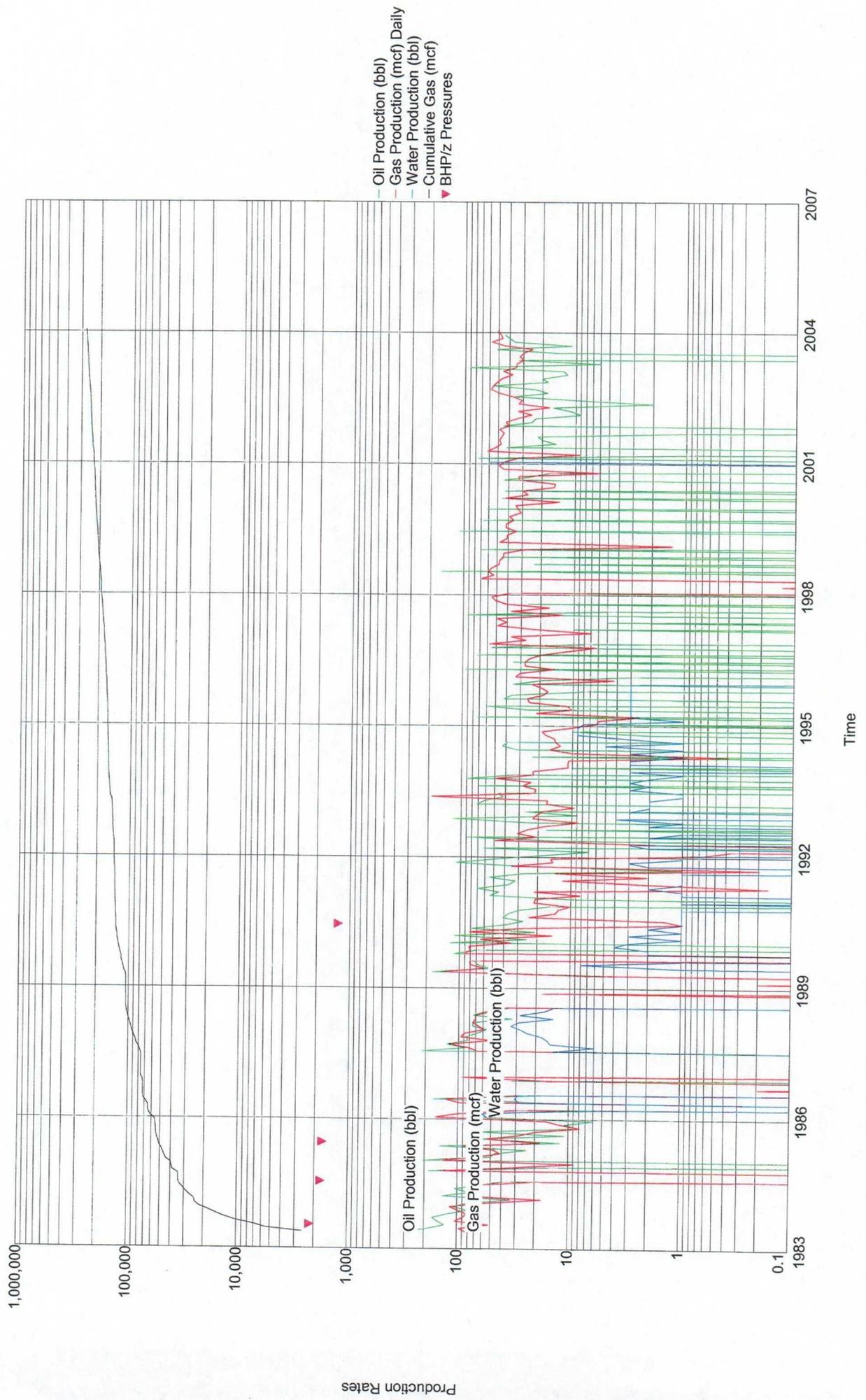


Production Rates

Time

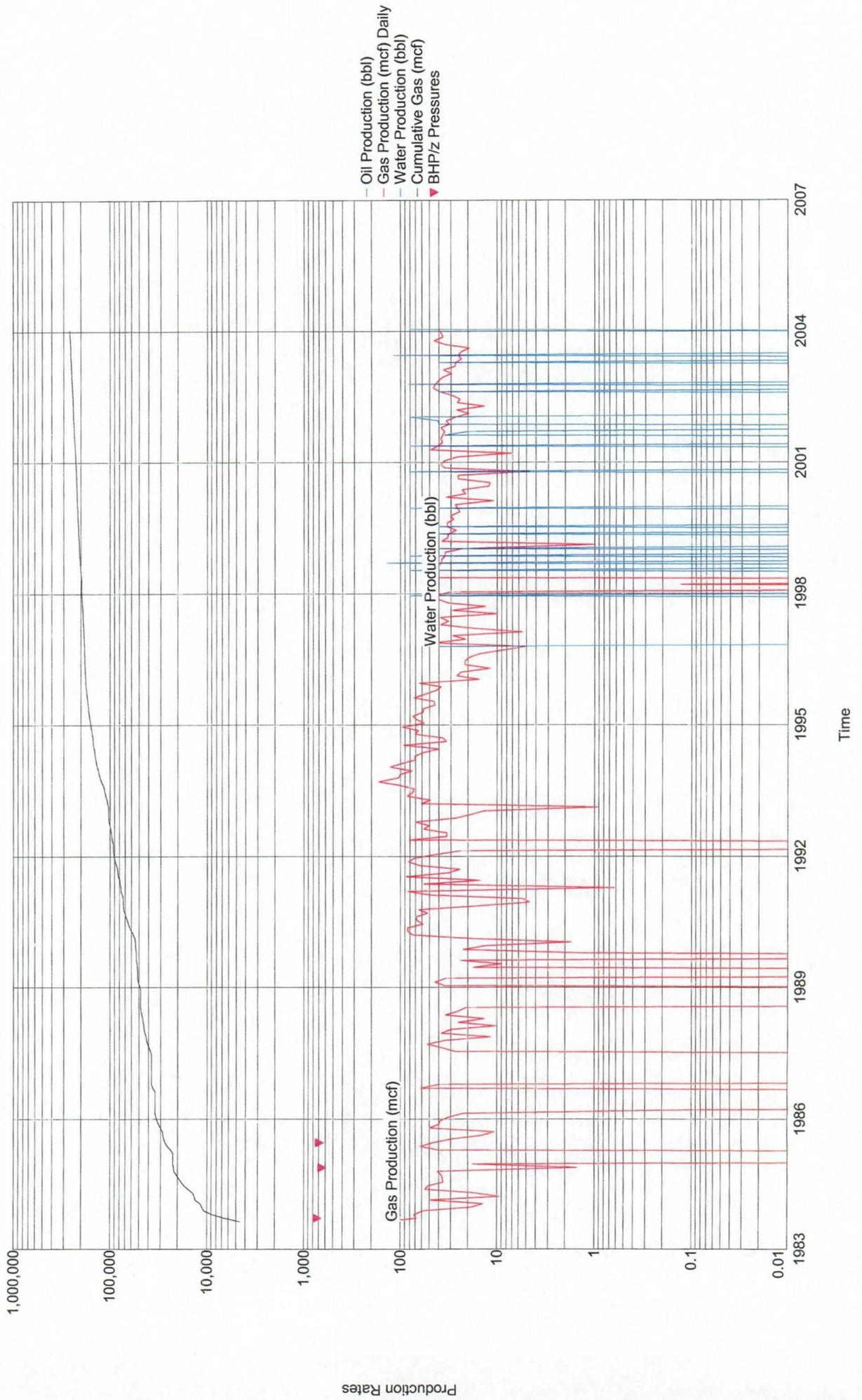
Lease Name: JICARILLA B  
 County, State: RIO ARBA, NM  
 Operator: CDX RIO LIMITED LIABILITY CORPORATIO  
 Field: BASIN  
 Reservoir: DAKOTA  
 Location: 16 26N 5W SW NE NW

JICARILLA B - 7E ( DAKOTA)



Lease Name: JICARILLA B  
 County, State: RIO ARBA, NM  
 Operator: CDX RIO LIMITED LIABILITY CORPORATIO  
 Field: OTERO  
 Reservoir: CHACRA  
 Location: 16 26N 5W SW NE NW

JICARILLA B - 7E ( CHACRA)



*All Wells*

# PI/Dwights PLUS on CD Map Report

32	33	34
5	4	3
4 3E 3 4A 3R 8 7A 7 7E 15 7 17 18E 2 5 6E 1 20 5E 6	5E 8 8A 9 6E 7E 13 12 2 5 15 11 5 15 21 4 4E	3F 5A 5 3R 10 5A 8M 15 16 15 9 3E 30 15 9 5 26N 5 6 22 6 1E 2 22 6
29	28	27
32	33	34

# PI/Dwights PLUS on CD Map Report

Dakota

32	33	34
5	4	3
3E 3R 7 8 7E 7 7 17 8E 6E 5 6 20 5E 6	5E 5 9 6E 7E 7 2 16 2E 5E 5 21 4E 5	2E 2 1 10 1E 8M 8 3 15 3E 26N 5W 1 6 22 1E 28 33
29	28	27
32	33	34

**PI/Dwights PLUS on CD Map Report**

*MICHAEL*

32	33	34
5	4	3
4 3E 3R 4A 7 8 8A 96A 7E	6 6B 8A 96A 8	5A 5 5 5C 10 5A 5R 8 8M
17 8E	16	15
9	5E	26N 5W
20	5 21	22
29	28	27
32	33	34

# PI/Dwights PLUS on CD Map Report

CHACRA

32	33	34
5	4	3
8	9	10
17	16	15
9	21	22
20	28	27
32	33	34

29

26N 5W