DATE 3/25/03	SUSPENSE NA	ENGINEER WVJ	LOGGED IN KW	TYPE DHC	APP NO. pKRV0308626892

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]

RECEIVED
MAR 25 2003
Oil Conservation Division

[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.

Peggy Cole	Peggy Cole	Regulatory Supr.	3-24-03
Print or Type Name	Signature	Title	Date

pcole@br-inc.com
e-mail Address

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised May 15, 2000

APPLICATION TYPE
___Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
_Y_ Yes ___No

BURLINGTON RESOURCES OIL & GAS COMPANY **PO BOX 4289, FARMINGTON, NM 87499**

Operator		Address	
Jicarilla 153	**#21**	**K-36-26N-5W**	**Rio Arriba**
Lease	Well No.	Unit Letter-Section-Township-Range	County

OGRID No. 14538 Property Code 16579 API No. 30-039-23413 Lease Type: X Federal ___State ___Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
	UNDESIGNATED	Pro Gas	
Pool Name	OTERO CHACRA ✓Gas	BLANCO MESAVERDE ✓	LINDRITH GALLUP DAKOTA, WEST OIL ✓
Pool Code	82329 ✓	72319 ✓	39189 ✓
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	WILL BE SUPPLIED UPON COMPLETION	4854'-5517'	6491'-7558'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	ARTIFICIAL LIFT PLUNGER	ARTIFICIAL LIFT PLUNGER
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)	Original 449 psi From Jicarilla 150 #12 offset (see attachment)	Original 823 psi Current 231 psi	Original 2291 psi Current 841 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1240 From Jicarilla 150 #12 offset	BTU 1240	BTU 1240
Producing, Shut-In or New Zone	New Zone	Producing	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: See Attachment	Date: 12/31/02 Rates: 16 Mcfd	Date: 12/31/02 Rates: 88 Mcfd OIL=?
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? 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.
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 L. Tom Loveland TITLE SENIOR RESERVOIR ENGR DATE 3/24/03
nxo
TYPE OR PRINT NAME L. Tom Loveland TELEPHONE NO. (505) 326-9700

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources

Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102

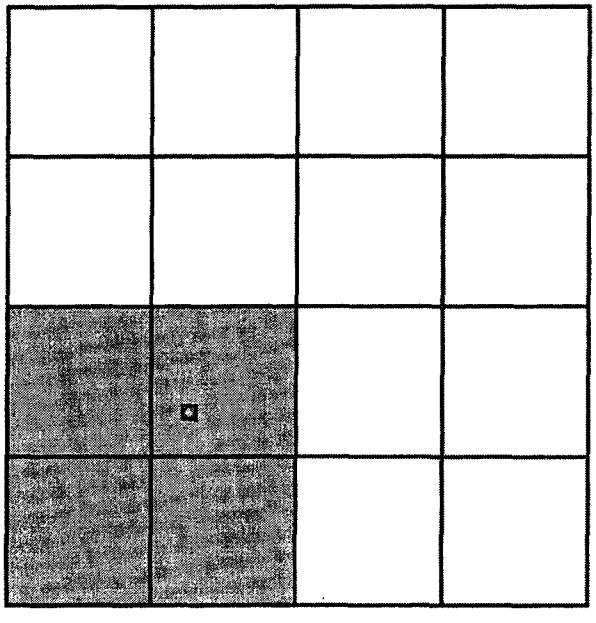
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Name	Pool Code
30-039-23413	OTERO CHACRA (GAS)	82329
Property Code	**Property Name**	**Well No.**
16579	JICARILLA 153	021
OGRID No.	**Operator Name**	**Elevation**
14538	Burlington Resources Oil and Gas Company	6733

Surface And Bottom Hole Location

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	36	26N	05W		1693	S	1662	W	Rio Arriba

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			



OPERATOR CERTIFICATION

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

Electronically Signed By: Peggy Cole
Title:
Date: 1-14-03

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.

Electronically Signed By: Michael Daly
Date of Survey: 9/9/1983
Certificate Number: 5992

District I
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Energy, Minerals and Natural Resources

Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102

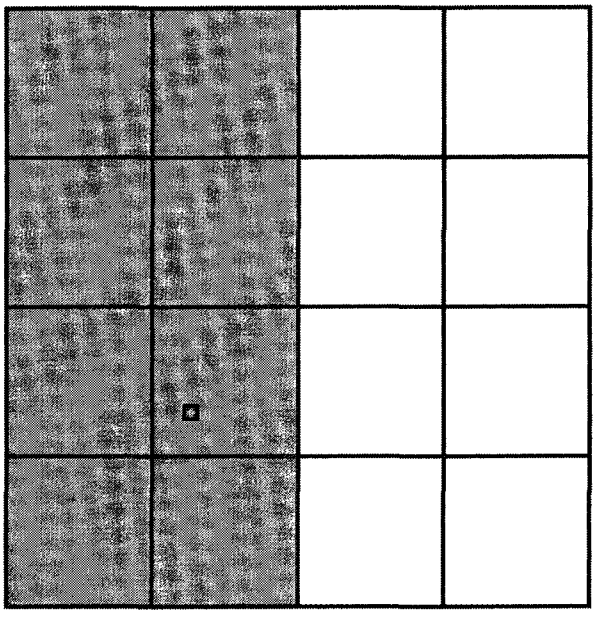
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Name	Pool Code
30-039-23413	BLANCO-MESAVERDE (PRORATED GAS)	72319
Property Code	**Property Name**	**Well No.**
16579	JICARILLA 153	021
OGRID No.	**Operator Name**	**Elevation**
14538	Burlington Resources Oil and Gas Company	6733

Surface And Bottom Hole Location

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	36	26N	05W		1693	S	1662	W	Rio Arriba

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			



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Energy, Minerals and Natural Resources

Oil Conservation Division
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Santa Fe, NM 87505

Form C-102

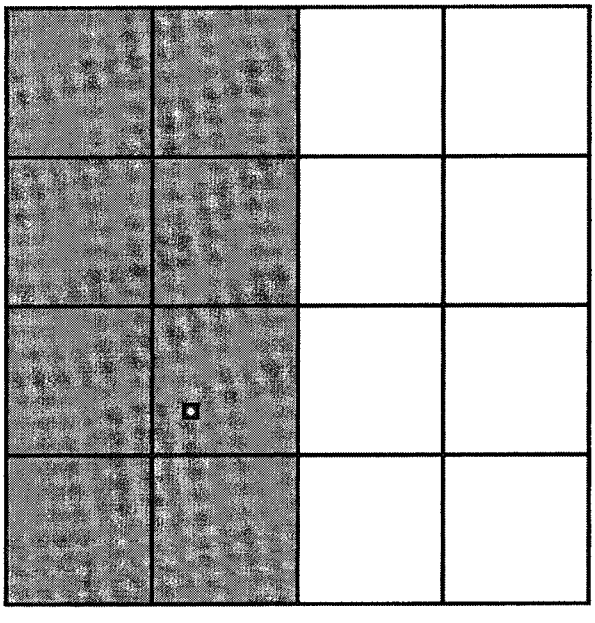
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Name	Pool Code
30-039-23413	LINDRITH GALLUP-DAKOTA,WEST	39189
Property Code	**Property Name**	**Well No.**
16579	JICARILLA 153	021
OGRID No.	**Operator Name**	**Elevation**
14538	Burlington Resources Oil and Gas Company	6733

Surface And Bottom Hole Location

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	36	26N	05W		1693	S	1662	W	Rio Arriba

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			



OPERATOR CERTIFICATION

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Title:

Date:

SURVEYOR CERTIFICATION

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Electronically Signed By: Michael Daly

Date of Survey: 9/9/1983

Certificate Number: 5992

Jicarilla 153 #21
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Chacra		Mesaverde	
CH-Current		**MV-Current**	
GAS GRAVITY	0	GAS GRAVITY	0.71
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0	%N2	0.00
%CO2	0	%CO2	0.00569
%H2S	0	%H2S	0
DIAMETER (IN)	0	DIAMETER (IN)	5.5
DEPTH (FT)	0	DEPTH (FT)	5186
SURFACE TEMPERATURE (DEG F)	0	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	0	BOTTOMHOLE TEMPERATURE (DEG F)	137.4
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0	SURFACE PRESSURE (PSIA)	203
BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!	BOTTOMHOLE PRESSURE (PSIA)	230.8
CH-Original		**MV-Original**	
GAS GRAVITY	0.719	GAS GRAVITY	0.7122
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.00573	%N2	0.32
%CO2	0.00865	%CO2	0.64
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	5.5
DEPTH (FT)	1959	DEPTH (FT)	5186
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	92.7	BOTTOMHOLE TEMPERATURE (DEG F)	137.4
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	425	SURFACE PRESSURE (PSIA)	714
BOTTOMHOLE PRESSURE (PSIA)	448.5	BOTTOMHOLE PRESSURE (PSIA)	822.8

Jicarilla 153 #21
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Gallup Dakota

GLDK-Current

GAS GRAVITY	0.711
COND. OR MISC. (C/M)	C
%N2	0.00209
%CO2	0.00569
%H2S	0
DIAMETER (IN)	2.375
DEPTH (FT)	7025
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	164.8
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	698
BOTTOMHOLE PRESSURE (PSIA)	840.9

GLDK-Original

GAS GRAVITY	0.7122
COND. OR MISC. (C/M)	C
%N2	0.32
%CO2	0.64
%H2S	0
DIAMETER (IN)	2.375
DEPTH (FT)	7025
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	164.8
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1848
BOTTOMHOLE PRESSURE (PSIA)	2291.2

Dakota

DK-Current

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0.00
%CO2	0
%H2S	0
DIAMETER (IN)	0
DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!

DK-Original

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0.00
%CO2	0
%H2S	0
DIAMETER (IN)	0
DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!

Jicarilla 153 #21 - SICP/Z Data

Zone: Mesaverde

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
12/17/1984	714	10/1/2002	0.9258	771	0	N/A	771
4/29/1986	997	10/1/2002	0.9008	1107	5.113	65.63056	771
4/21/1987	839	10/1/2002	0.9144	918	16.778	8.720746	771
9/27/1988	781	10/1/2002	0.9196	849	32.036	2.436553	771
3/6/1990	755	10/1/2002	0.922	819	47.355	1.006169	771
2/12/1991	713	10/1/2002	0.9259	770	56.691	-0.02052	771
???	159	N/A	1	159	158.3671	-3.865859	771
						↓	↓
12/31/2002	???	10/1/2002	???	210	145.267	-3.865859	771

Z-Factor = 0.97
SICP (psig) = 203

Zone: Dakota

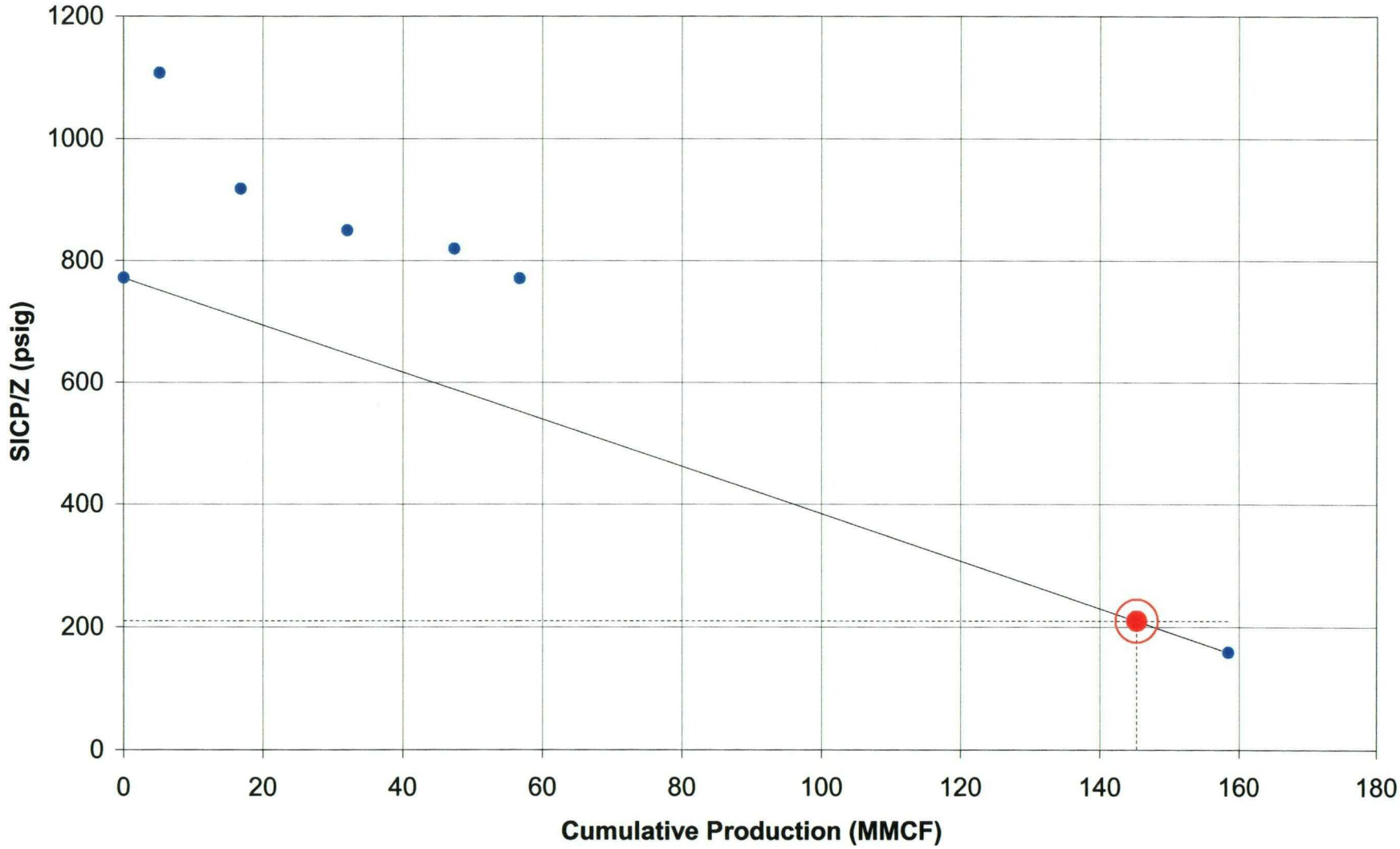
Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
4/29/1986	1848	10/1/2002	0.8234	2244	0	N/A	2244
4/21/1987	1280	10/1/2002	0.8578	1492	27.619	-27.23355	2244
9/27/1988	1084	10/1/2002	0.8751	1239	76.575	-13.13271	2244
3/6/1990	1031	10/1/2002	0.8802	1171	180.024	-5.960472	2244
2/12/1991	1259	10/1/2002	0.8595	1465	282.328	-2.761142	2244
5/6/1993	668	10/1/2002	0.9186	727	1573.35	-0.964286	2244
???	159	N/A	1	159	3506.067	-0.594784	2244
						↓	↓
12/31/2002	???	10/1/2002	???	757	2501.16	-0.594784	2244

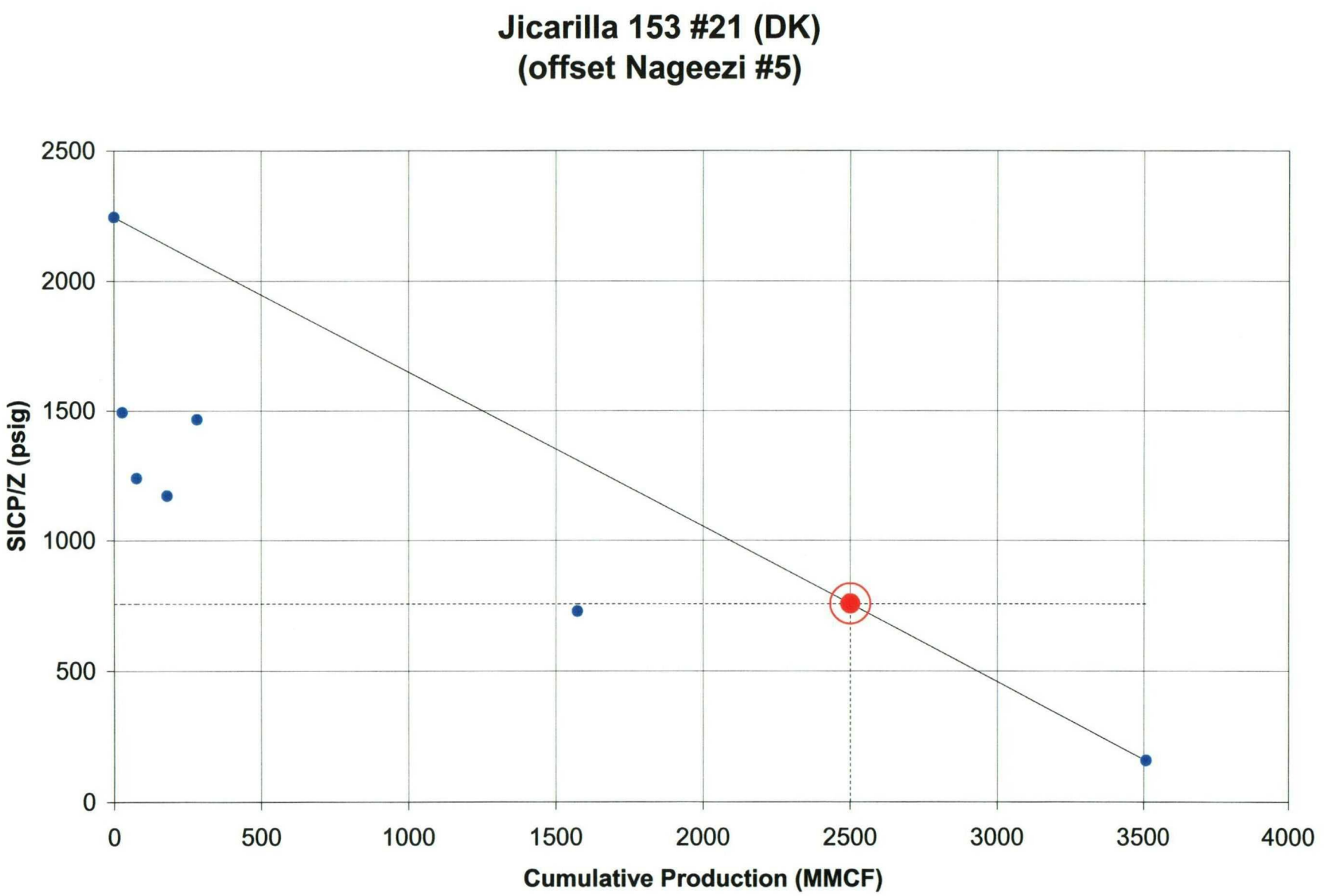
Z-Factor = 0.923
SICP (psig) = 698

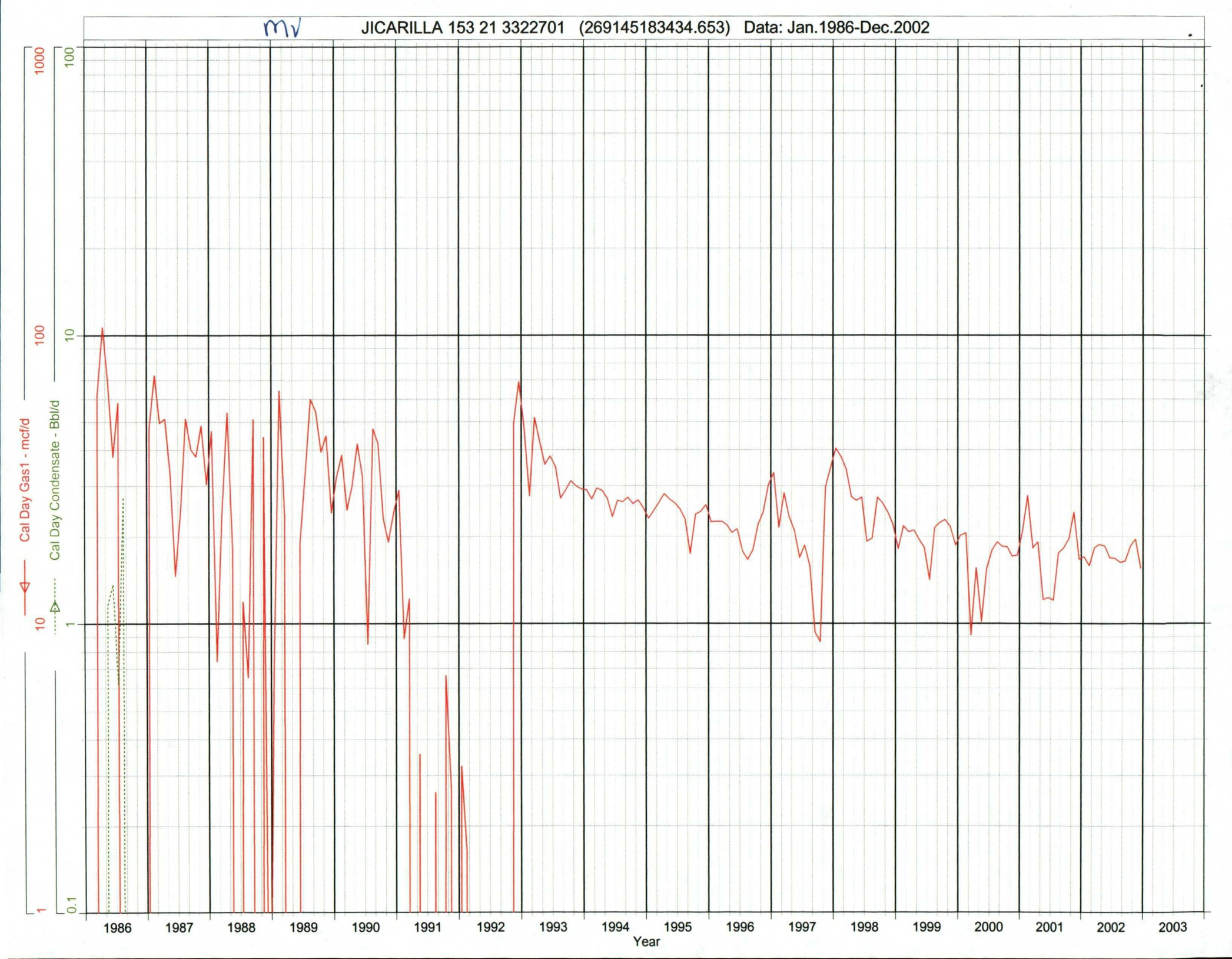
Offset Nageezi #5

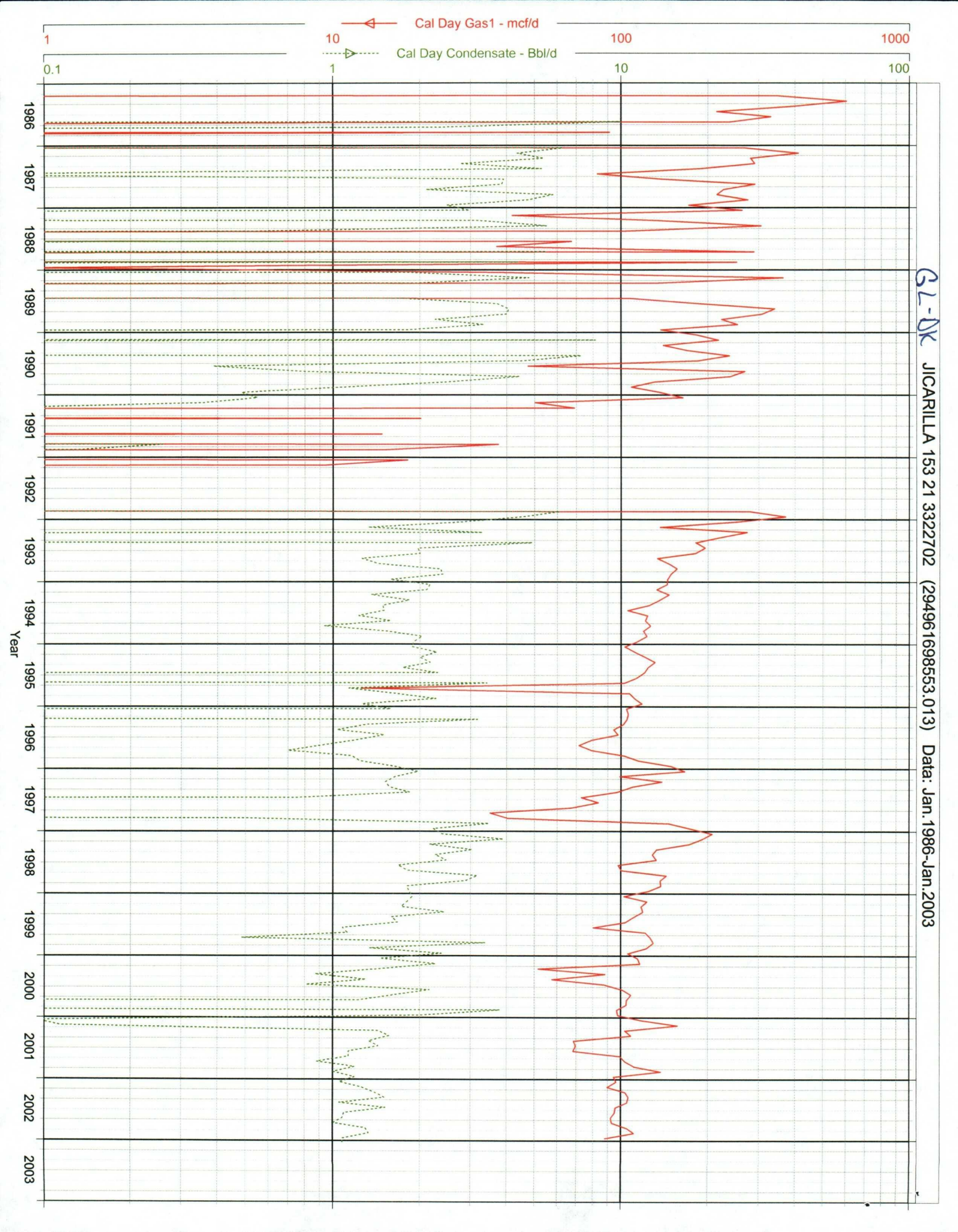
NOTE: THESE ARE ESTIMATES OF THE CURRENT RESERVOIR PRESSURE IN EACH ZONE. IT IS REALIZED THAT THE NEAR-WELLBORE PRESSURES FOR EACH ZONE SHOULD BE SIMILAR, DUE TO THEIR COMMINGLED STATUS.

Jicarilla 153 #21 (MV)




Jicarilla 153 #21 (DK)
(offset Nageezi #5)
SICP/Z (psig)
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
4000
Cumulative Production (MMCF)


MV
JICARILLA 153 21 3322701 (269145183434.653) Data: Jan.1986-Dec.2002
Cal Day Gas1 - mcf/d
Cal Day Condensate - Bbl/d
1000
100
10
1
100
10
1
0.1
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year


Cal Day Gas1 - mcf/d
1
10
100
1000
Cal Day Condensate - Bbl/d
0.1
1
10
100
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year
GL-UK
JICARILLA 153 21 332702 (294961698553.013) Data: Jan.1986-Jan.2003

BURLINGTON RESOURCES

Lewis Implementation Team

Memorandum

TO: **New Mexico Oil Conservation Division**

FROM: **Lewis Implementation Team, Burlington Resources**

DATE: **December 2, 2002**

RE: **2003 Chacra Recompletion Program Expected Production**

Chacra-only production from 73 wells completed after 1970 was normalized and forecasted to result in the production model presented in Table 1. A graphical representation of this normalized production forecast is shown in the attached Figure 1. These wells are located in or near the Chacra Fairway in T-27-N, R-08-W; T-27-N, R-09-W; T-28-N, R-08-W; T-28-N, R-09-W; T-28-N, R-10-W; T-28-N, R-11-W; T-29-N, R-09-W; T-29-N, R-10-W; and T-29-N, R-11-W. Actual results from the individual payadds will certainly vary, but this production model represents the average results that should be achieved. Further delineation in the area will be made in 2003.

Table 1: 2003 Chacra production model.

Decline Type	Hyp to Exp
Initial Incremental Rate (MCF/D)	260
Initial Decline (%/yr, effective)	62
Final Decline (%/yr, effective)	1.6
Final Incremental Rate (MCF/D)	15
Hyperbolic Exponent, n	2.0
EUR (MMCF)	496

Figure 1. Graphical representation of the 2003 Chacra production model.