

4/6/03	5/14/03	ENGINEER WVS	LOGGED IN KW	TYPE DHC	PRV0311530106
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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



APR 24 2003

OIL CONSERVATION
DIVISION

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.

PEGGY COLE
Print or Type Name

Signature

Title

Date

REGULATORY Supr. 4-23-03
peole@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

Form C-107A
Revised May 15, 2000

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

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

Operator Address
Johnston A Com G #18 K-36-26N-6W Rio Arriba
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 14538 Property Code 7207 API No. 30-039-25324 Lease Type: Federal X 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)	WILL BE SUPPLIED UPON COMPLETION	4666'-5008'	6815'-7142'
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 956 psi from Johnston A #15 offset (see attachment)	Original - 1205 psi Current - 315 psi	Original - 1849 psi Current - 395 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1203	BTU 1175	BTU 1175
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: 3/31/03 Rates: 102 Mcfd	Date: 3/31/03 Rates: 199 Mcfd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Gas 22% Oil 0%	Gas 23% Oil 20%	Gas 55% Oil 80%

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes No X
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: DHC-382az

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 L. Tom Loveland TITLE Reservoir Engineer DATE 4/23/03
TYPE OR PRINT NAME L. Tom Loveland TELEPHONE NO. (505) 326-9700

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., 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 and Natural Resources

Form C-102

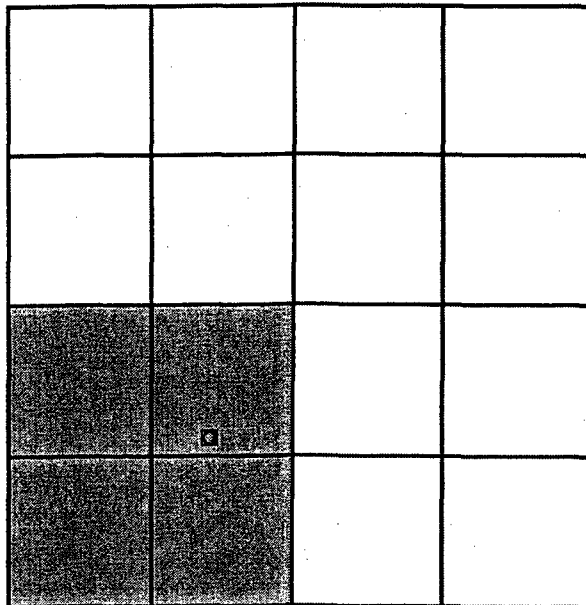
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-25324	Pool Name OTERO CHACRA (GAS)	Pool Code 82329
Property Code 7207	Property Name JOHNSTON A COM G	Well No. 018
OGRID No. 14538	Operator Name Burlington Resources Oil and Gas Company	Elevation 6358

Surface And Bottom Hole Location

UL or Lot K	Section 36	Township 26N	Range 06W	Lot Idn	Feet From 1465	N/S Line S	Feet From 1850	E/W Line W	County Rio Arriba
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						

**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:

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: Neale Edwards

Date of Survey: 8/25/1993

Certificate Number: 9857

Schedule to Applicant
District Office
State License - 4 copies
Fee License - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-100
Revised 1-1-80

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Arama, NM 88210

DISTRICT III
1000 Rio Blanco Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Submitted to State 1-16-93

Operator Meridian Oil Inc.		Lease Johnston A Com G		Well No. 18
Unit Letter K	Section 36	Township 26 North	Range 6 West	County Rio Arriba
Adjoin Footings Location of Well: 1465 feet from the South line and 1850 feet from the West line				
Ground Level Elev. 6358'	Proven Formation Dakota	Pool Basin	Dedicated Acreage 320/326 Acres	

1. Outline the acreage dedicated to the subject well by corner points or inclosure 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).

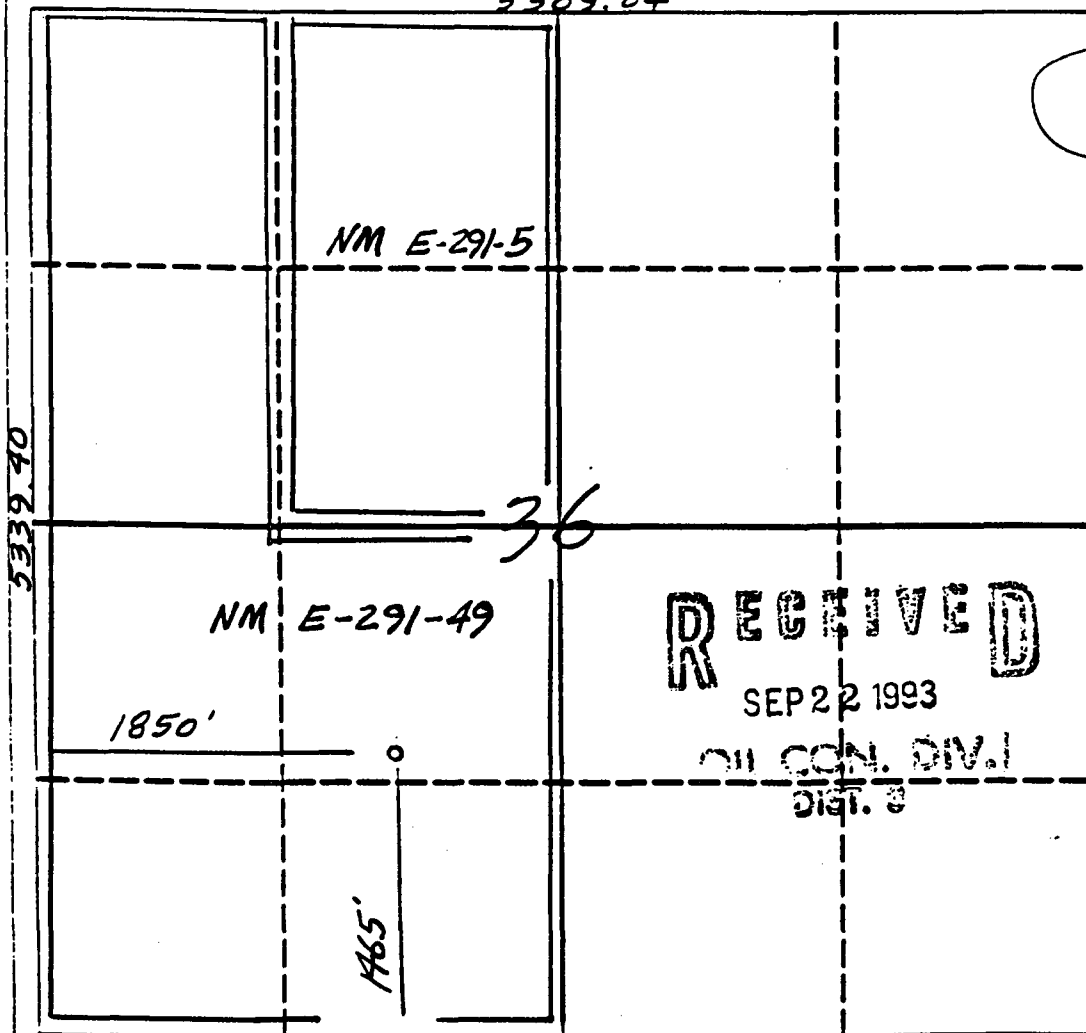
3. If more than one lease of different ownership is dedicated to the well, have the names of all owners been consolidated by communitization, unitization, forced-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation State communitization agreement dated 12-2-

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

No allowance will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a acre-estimate test, eliminating such interest, has been approved by the Division.

5309.04



OPERATOR CERTIFICATION

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

Peggy Bradfield
Signature

Peggy Bradfield

Printed Name
Regulatory Rep

Position
Meridian Oil Inc.

Company
9-15-93

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes or 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. 8-25-93

Date Surveyed
Signed
Professional Surveyor

C. Edwards
Signature
6857
Certificate No.

Johnston A Com G #18
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 1/14/98

Chacra		Mesaverde	
<u>CH-Current</u>		<u>MV-Current</u>	
GAS GRAVITY	0	GAS GRAVITY	0.677
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0	%N2	0.00
%CO2	0	%CO2	0.0095
%H2S	0	%H2S	0
DIAMETER (IN)	0	DIAMETER (IN)	5.5
DEPTH (FT)	0	DEPTH (FT)	4837
SURFACE TEMPERATURE (DEG F)	0	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	0	BOTTOMHOLE TEMPERATURE (DEG F)	114.3
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0	SURFACE PRESSURE (PSIA)	280
BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!	BOTTOMHOLE PRESSURE (PSIA)	315.1
<u>CH-Original</u>		<u>MV-Original</u>	
GAS GRAVITY	0.689	GAS GRAVITY	0.6808
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.0036	%N2	0.61
%CO2	0.0027	%CO2	0.333
%H2S	0	%H2S	0
DIAMETER (IN)	2.875	DIAMETER (IN)	5.5
DEPTH (FT)	3494	DEPTH (FT)	4837
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	92.7	BOTTOMHOLE TEMPERATURE (DEG F)	114.3
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	866	SURFACE PRESSURE (PSIA)	1050
BOTTOMHOLE PRESSURE (PSIA)	957.9	BOTTOMHOLE PRESSURE (PSIA)	1204.5

Johnston A Com G #18
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 1/14/98

Dakota			
<u>DK-Current</u>		<u>Current</u>	
GAS GRAVITY	0.677	GAS GRAVITY	0
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.0038	%N2	0.00
%CO2	0.0095	%CO2	0
%H2S	0	%H2S	0
DIAMETER (IN)	2.375	DIAMETER (IN)	0
DEPTH (FT)	6979	DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	138.4	BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	334	SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	395.2	BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!
<u>DK-Original</u>		<u>Original</u>	
GAS GRAVITY	0.6136	GAS GRAVITY	0
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.898	%N2	0.00
%CO2	0.226	%CO2	0
%H2S	0	%H2S	0
DIAMETER (IN)	2.375	DIAMETER (IN)	0
DEPTH (FT)	6979	DEPTH (FT)	0
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	0
BOTTOMHOLE TEMPERATURE (DEG F)	138.4	BOTTOMHOLE TEMPERATURE (DEG F)	0
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1550	SURFACE PRESSURE (PSIA)	0
BOTTOMHOLE PRESSURE (PSIA)	1848.6	BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!

Johnston A Com G #18 - SICP/Z Data

Zone: Mesaverde

<u>Date</u>	<u>SICP (psig)</u>	<u>Chromatograph Used</u>	<u>Z-Factor</u>	<u>SICP/Z (psig)</u>	<u>Cum Qg (MMCF)</u>	<u>Slope</u>	<u>Y Intercept</u>
10/12/1994	1050	10/1/2002	0.8417	1247	0	N/A	1247
???	129	N/A	1	129	1000	-1.118475	1247
						↓	↓
3/31/2003	???	10/1/2002	???	311	836.851	-1.118475	1247

Z-Factor = 0.9
SICP (psig) = 280

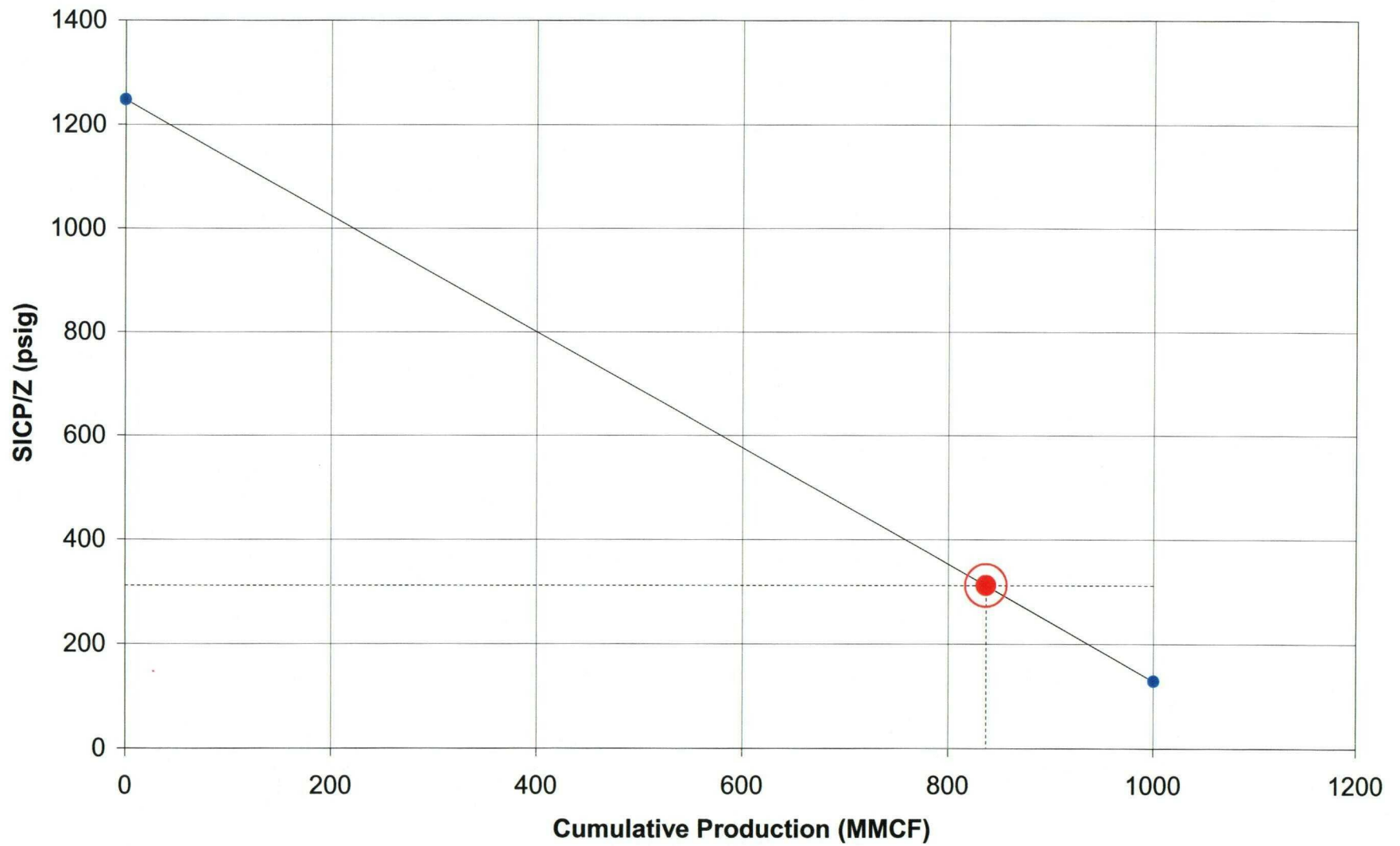
Zone: Dakota

<u>Date</u>	<u>SICP (psig)</u>	<u>Chromatograph Used</u>	<u>Z-Factor</u>	<u>SICP/Z (psig)</u>	<u>Cum Qg (MMCF)</u>	<u>Slope</u>	<u>Y Intercept</u>
10/12/1994	1550	10/1/2002	0.79	1962	0	N/A	1962
???	129	N/A	1	129	2000	-0.916513	1962
						↓	↓
3/31/2003	???	10/1/2002	???	380	1726.46	-0.916513	1962

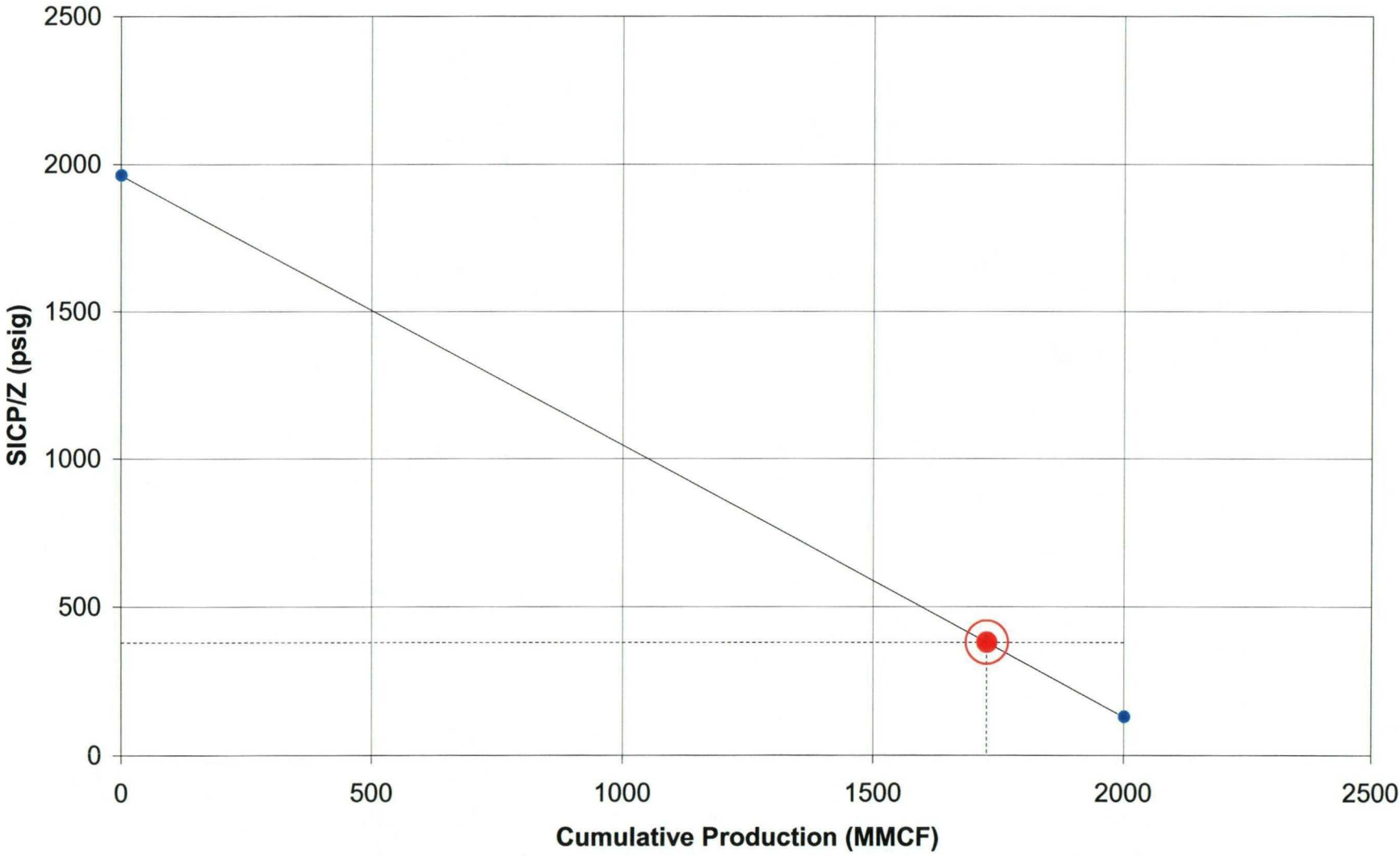
Z-Factor = 0.88
SICP (psig) = 334

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.

Johnston A Com G #18 (MV)

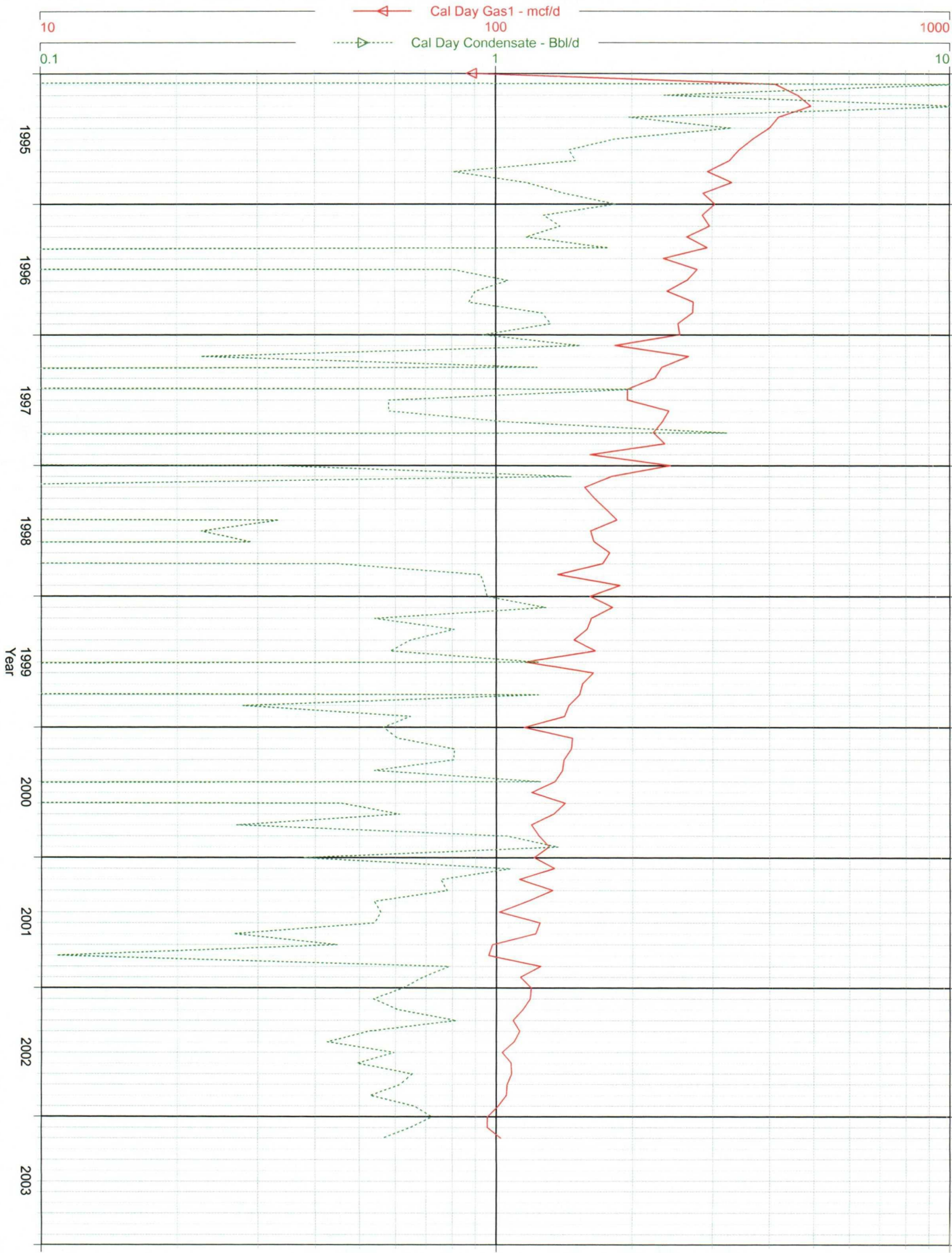


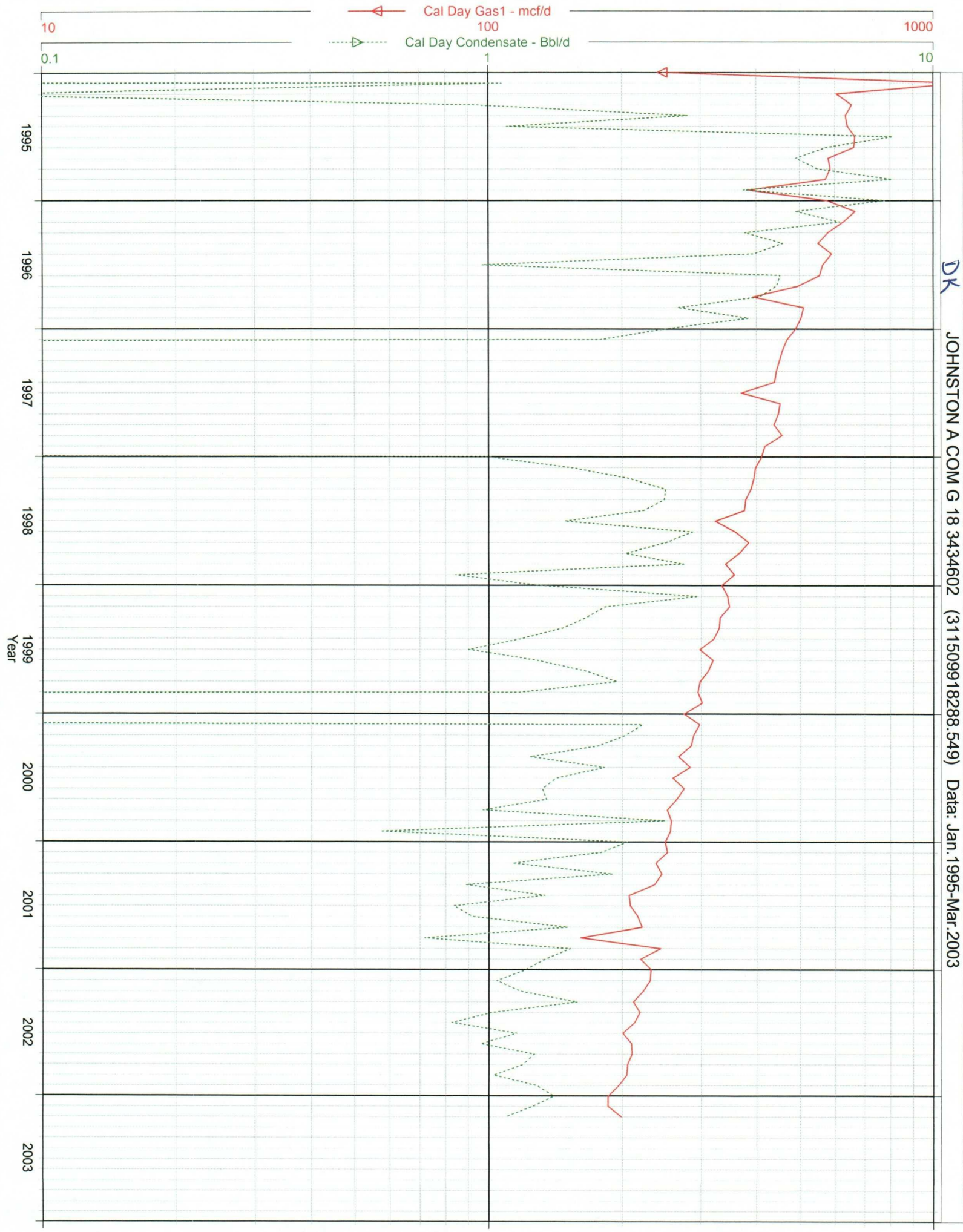
Johnston A Com G #18 (DK)





JOHNSTON A COM G 18 3434601 (311503224506.156) Data: Jan.1995-Mar.2003





BURLINGTON RESOURCES

Lewis Implementation Team

Memorandum

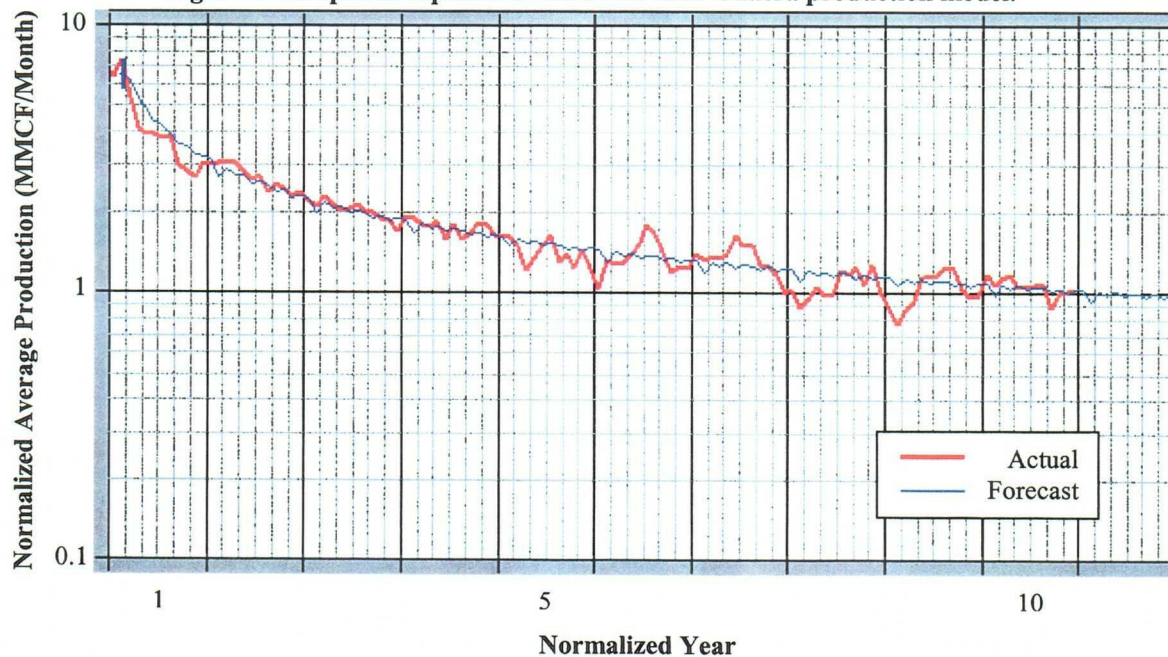
TO: New Mexico Oil Conservation Division
FROM: Lewis Implementation Team, Burlington Resources
DATE: December 2, 2002
RE: 2003 Chacra Recompletion Program Expected Production

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.



Johnston A Com G 18

Production Allocation Method

Mesaverde and Dakota based on remaining reserves.

Chacra based on production model.

	Gas		Oil	
	Allocation	Volume	Allocation	Volume
Chacra	22%	496	0%	0
Mesaverde	23%	525	20%	1.61
Dakota	55%	1259	80%	6.42

INTEREST OWNERS

Johnston A Com G 18 - CH/MVD

ANITA BRIGGS

BP AMERICA PRODUCTION COMPANY

CAROLYN BEAMON TILLEY

CATHRYN BEAMON

CLAUDIA MARCIA LUNDELL GILMER

H LIMITED PTSHP

JAMES ROBERT BEAMON

KAY BETH STAVLEY

LINDA CALVERT

LINDA JEANNE LUNDELL LINDSEY

LOU ANN PATTERSON

LOY SUE SIEGENTHALER

MARTHA LOU DIXON

MATIAS A & EMELINE L ZAMORA TR

ROBERT & THELMA SMITH REV TRST

ROBERT BEAMON

ROBERT WALTER LUNDELL

ROWENA DALE LAABS

SHARON BEAMON BURNS

STATE OF NEW MEXICO

SUSAN BEAMON PORTER

THEODORE J BLECHAR

THEODORE J BLECHAR EXECUTOR

WILLIAM M SIEGENTHALER JR