Suppose 3/25/04

ABOVE THIS LINE FOR DIVISION USE ONLY

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

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MAR 5 2004
Oil Conservation Division
1220 S. 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]

DHC-2104-A
pWVJ0409761367

[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	Nancy Oltmanns	Senior Staff Specialist	3-4-04
Print or Type Name	Signature	Title	Date

noltmanns@br-inc.com
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 South First Street, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised May 15, 2000

APPLICATION TYPE
_X_ Single Well
___ Establish Pre-Approved Pools
EXISTING WELLBORE
_X__ Yes __No

DHC-2104

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

SAN JUAN 27-5 UNIT | 138E | O-19-27N-05W | RIO ARRIBA
Lease | Well No. | Unit Letter-Section-Township-Range | County

OGRID No. 14538 Property Code 7454 API No. 30-039-23758 Lease Type: Federal X State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	BLANCO MESAVERDE (Pro Gas)	CEREZA CANYON GALLUP (Gas)	BASIN DAKOTA (Pro Gas)
Pool Code	72319	96766	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	WILL BE SUPPLIED UPON COMPLETION	6750' – 7151'	7560' – 7748'
Method of Production (Flowing or Artificial Lift)	FLOWING	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)	Original – 996 psi From San Juan 27-5 Unit 138 offset	Original – 1623 psi Current – 383 psi	Original – 2367 psi Current – 957 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1111 From San Juan 27-5 Unit 138 offset	BTU 1108	BTU 1108
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: Rates:	Date: 12/31/03 Rates: 35 Mcfd	Date: 12/31/03 Rates: 94 Mcfd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 39% Gas 34%	Oil 13% Gas 5%	Oil 48% Gas 61%

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_____ No__X_____

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: _____R-10694_____

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 Reservoir Engineer DATE 03/04/04
nco
TYPE OR PRINT NAME Leonard Biemer TELEPHONE NO. (505) 326-9700

Energy, Minerals & Natural Resources Depart

...esia, NM 88211-0719

...os Rd., Aztec, NM 87410

...V.
...88, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Revised February 21, 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

1 API Number	2 Pool Code	3 Pool Name
30-039-23758	72319/96766/71599	Blanco Mesaverde/Cereza Canyon Gallup/Basin Dakota

4 Property Code	5 Property Name	6 Well Number
7454	SAN JUAN 27-5 UNIT	138E

7 OGRID No.	8 Operator Name	9 Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6603'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	19	27N	5W		800	South	1650	East	RIO ARRIBA

11 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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
Gal - 160 DK & MV-E/320			

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

*Not re-surveyed:
Prepared from plat
By: Fred B. Kerr Jr.
Dated: May 1, 1985

19

1650'

800'

17 OPERATOR CERTIFICATION

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

Signature

Nancy Oltmanns
Printed Name

Senior Staff Specialist
Title

10-31-03
Date

18 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.

NOVEMBER 20, 1997
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

BURLINGTON RESOURCES

PRODUCTION ALLOCATION FORM

Distribution:
Regulatory
Accounting
Well File
Revised July 29, 2003

Status
PRELIMINARY **X**
FINAL ☐

Type of Completion

NEW DRILL ☐ RECOMPLETION **X** PAYADD ☐ COMMINGLE ☐

Date: March 3, 2004

API No.
3003923758

Well Name
SAN JUAN 27-5 UNIT

Well No.
138E

Unit Letter	Section	Township	Range	Footage	County, State
O	19	027N	005W	800' FSL & 1650' FEL	Rio Arriba County, New Mexico

1st Delivery Date

Test Method

HISTORICAL **X** FIELD TEST ☐ PROJECTED **X** OTHER ☐

FORMATION	GAS	PERCENT	OIL	PERCENT
Mesaverde	316 MMcf	34%	1.3 Mstb	39%
Gallup	43 MMcf	5%	0.4 Mstb	13%
Dakota	571 MMcf	61%	1.6 Mstb	48%

JUSTIFICATION OF PRELIMINARY ALLOCATION

The referenced well is currently a Gallup / Dakota commingle. A Mesaverde recompletion is planned for this well. The gas percentages provided are based upon remaining reserves assigned to the Gallup and Dakota formations, and estimated gas production for the Mesaverde. Oil percentages are based upon cumulative oil production for the Gallup and Dakota formations, and an estimated oil production for the Mesaverde.

APPROVED BY	TITLE	DATE
Leonard Biemer	Engineer	3/4/04
Kristy Graham	Engineering Tech	3/4/04

San Juan 27-5 Unit 138E
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Mesaverde

MV-Current

GAS GRAVITY	0
COND. OR MISC. (C/M)	C
%N2	0
%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!

MV-Original

GAS GRAVITY	0.643
COND. OR MISC. (C/M)	C
%N2	0.002
%CO2	0.015
%H2S	0
DIAMETER (IN)	4.5
DEPTH (FT)	4758
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	173
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	889
BOTTOMHOLE PRESSURE (PSIA)	995.5

Gallup

GP-Current

GAS GRAVITY	0.638
COND. OR MISC. (C/M)	C
%N2	0.00184
%CO2	0.01307
%H2S	0
DIAMETER (IN)	4.5
DEPTH (FT)	6951
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	188
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	330
BOTTOMHOLE PRESSURE (PSIA)	383.3

GP-Original

GAS GRAVITY	0.715
COND. OR MISC. (C/M)	C
%N2	0.019
%CO2	0.054
%H2S	0
DIAMETER (IN)	4.5
DEPTH (FT)	6951
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	188
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1330
BOTTOMHOLE PRESSURE (PSIA)	1622.8

San Juan 27-5 Unit 138E
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method

Version 1.0 1/14/98

Dakota

DK-Current

GAS GRAVITY	0.638
COND. OR MISC. (C/M)	C
%N2	0.00184
%CO2	0.01307
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7654
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	183
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	802
BOTTOMHOLE PRESSURE (PSIA)	957.3

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	0.715
COND. OR MISC. (C/M)	C
%N2	0.0194
%CO2	0.0054
%H2S	0
DIAMETER (IN)	1.5
DEPTH (FT)	7654
SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	183
FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	1879
BOTTOMHOLE PRESSURE (PSIA)	2367.3

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!

San Juan 27-5 Unit 138E - SICP/Z Data

Zone: Gallup

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
4/20/1998	1330	5/1/2003	0.9023	1474	0	N/A	1474
???	159	N/A	1	159	304.339	-4.320875	1474
						↓	↓
1/31/2004	???	5/1/2003	???	344	261.639	-4.320875	1474

Z-Factor = 0.96
SICP (psig) = 330

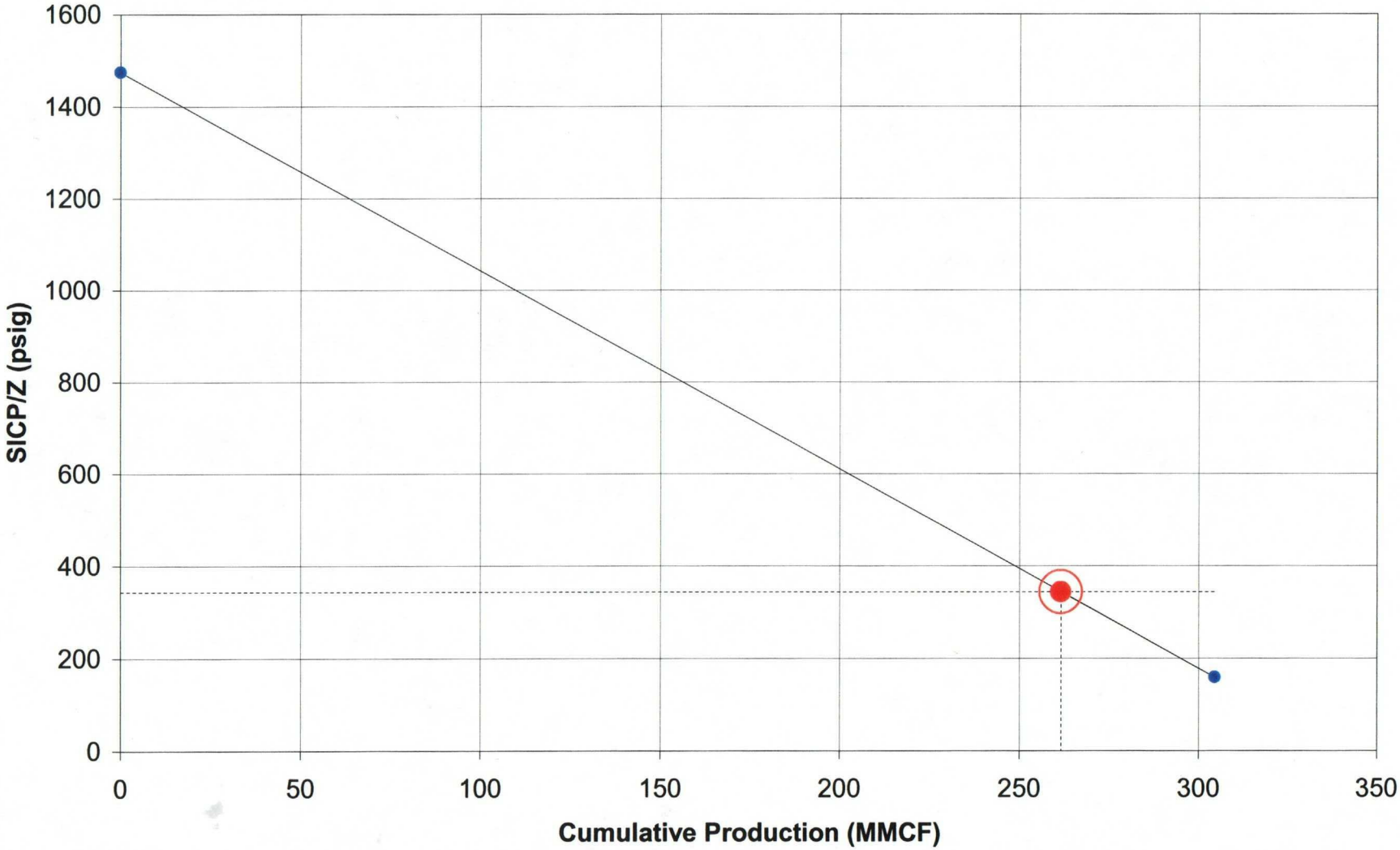
Zone: Dakota

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
8/23/1985	1879	5/1/2003	0.8828	2128	0	N/A	2128
5/5/1986	1284	5/1/2003	0.9046	1419	42.918	-16.52088	2128
6/28/1988	1001	5/1/2003	0.9209	1087	265.295	-3.925723	2128
7/31/1990	1096	5/1/2003	0.915	1198	416.587	-2.233965	2128
7/28/1992	699	5/1/2003	0.9417	742	553.843	-2.50284	2128
???	159	N/A	1	159	1683.92	-1.169566	2128
						↓	↓
1/31/2004	???	5/1/2003	???	827	1112.97	-1.169566	2128

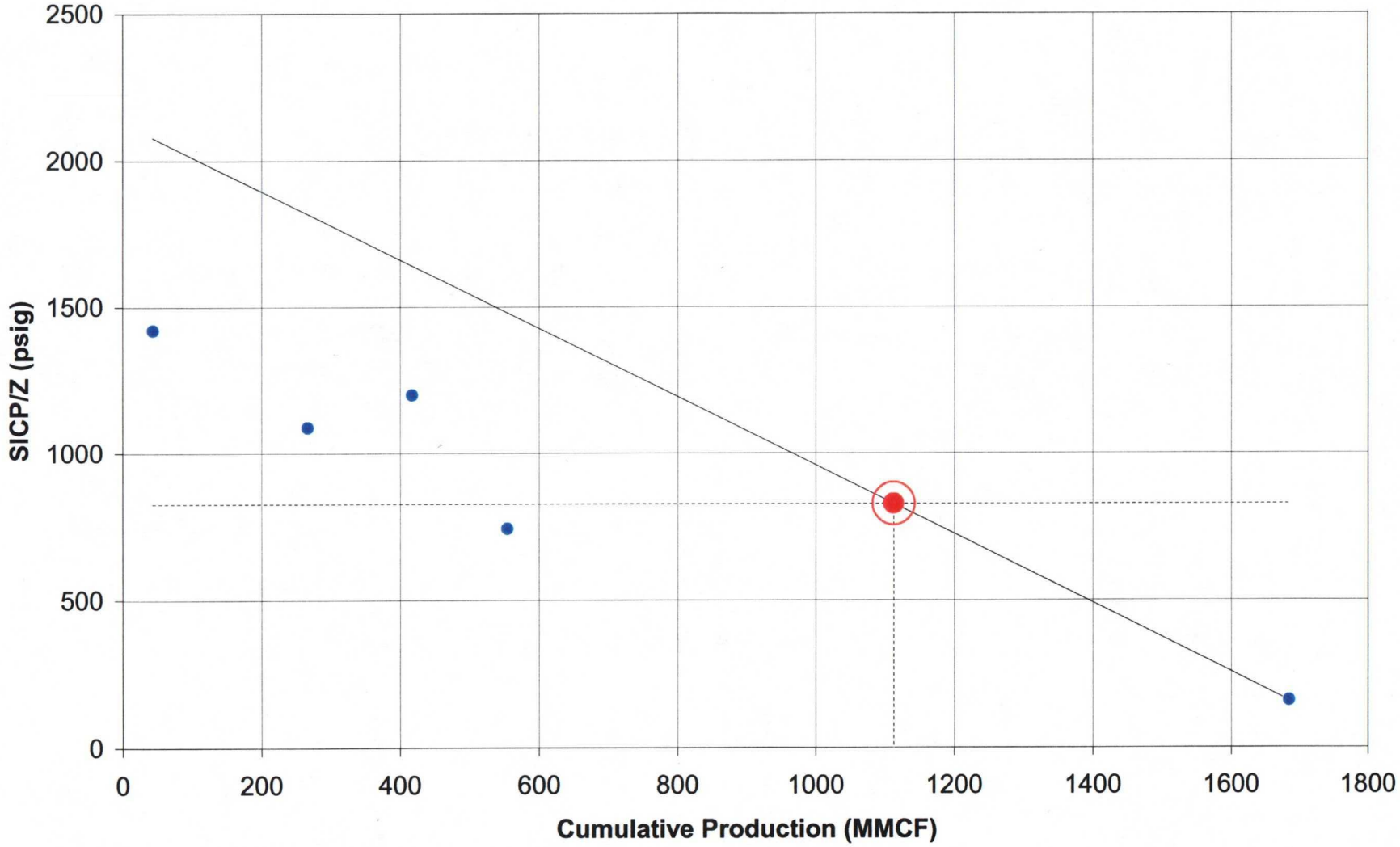
Z-Factor = 0.97
SICP (psig) = 802

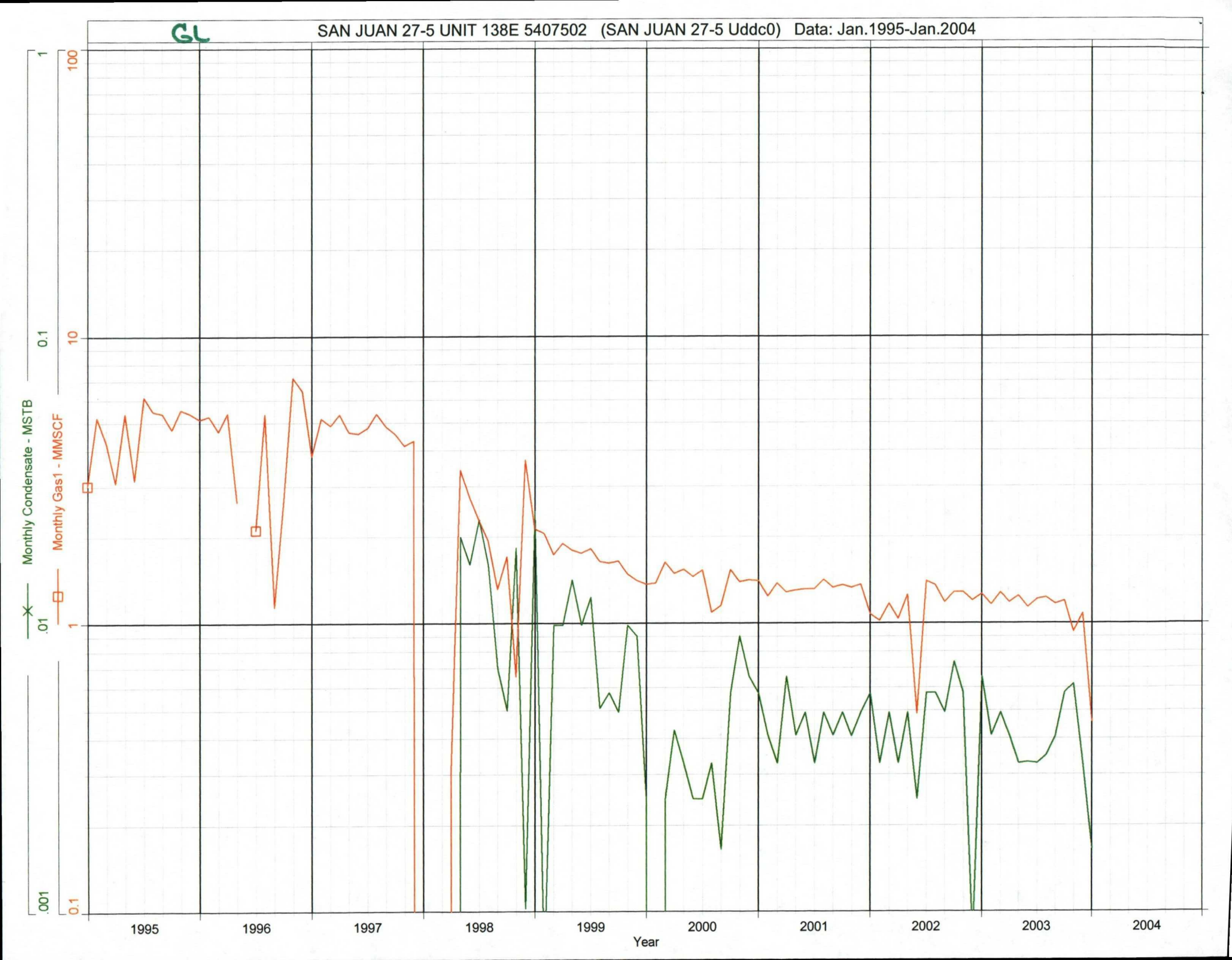
NOTE: THESE ARE ESTIMATES OF THE CURRENT RESERVOIR PRESSURE IN EACH ZONE. IT IS REALIZED THAT THE NEAR-WELLBORE PRESSURES FOR EACH ZONE SHOULD BE SIMILAR, DUE TO THEIR COMMINGLED STATUS.

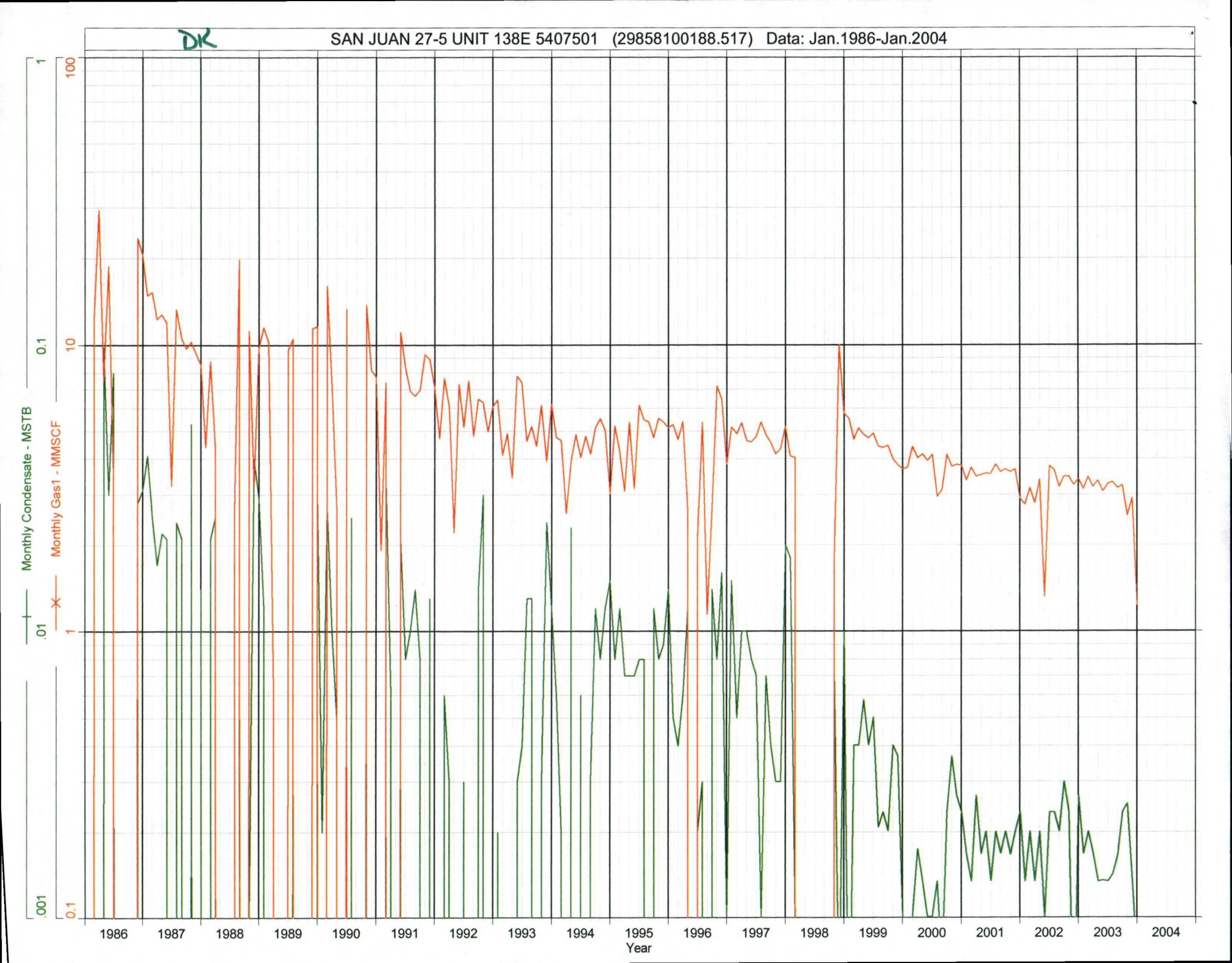
San Juan 27-5 Unit 138E (GL)



San Juan 27-5 Unit 138E (DK)




GL
SAN JUAN 27-5 UNIT 138E 5407502 (SAN JUAN 27-5 Uddc0) Data: Jan.1995-Jan.2004
Monthly Condensate - MSTB
Monthly Gas1 - MMSCF
1
0.1
.01
.001
100
10
1
0.1
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Year


DK
SAN JUAN 27-5 UNIT 138E 5407501 (29858100188.517) Data: Jan.1986-Jan.2004
Monthly Condensate - MSTB
Monthly Gas1 - MMSCF
1
0.1
.01
.001
100
10
1
0.1
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Year