BURLINGTON RESOURCES

SAN JUAN DIVISION

August 15, 1997

RECEIVED

AUG 18 1997

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Att: Mr. David Catanach

Re: Application for Downhole Commingling of Fruitland Coal and Pictured Cliffs
San Juan 29-7 Unit #520 (SW Section 8, T-29-N, R-7-W)
San Juan 29-7 Unit #584 (NE Section 6, T-29-N, R-7-W)

Dear Mr. Catanach:

This is in response to your letter of July 2, 1997 in which you expressed concerns about our departure from the historical "calculated" type method of allocation due to the unique producing characteristics of the Fruitland Coal reservoir. Our intent on determining allocation with a fixed percentage is motivated by the fact that volume accounting will be simpler and that the Fruitland Coal reservoir decline profiles in these locations behave more like conventional sandstone reservoirs.

The Fruitland Coal seam in the San Juan Basin has two distinct characteristics. There exists underpressured and overpressured fairways. The underpressured fairway decline rates are typical of conventional reservoirs. The overpressured fairway decline rates exhibit the classic incline in rate, followed by a plateau, then a sharp decline. The two subject wells lie in the underpressured fairway. The attached plats show the over/underpressured boundaries for each. Also attached are decline curves from offsetting wells in each of the over/underpressured zones. You will note the consistency of the producing characteristics in each zone.

The San Juan 29-7 Unit #520 well is offset to the west by the San Juan 29-7 Unit #547 and #548 in Section 7. They also lie in the underpressured fairway and show no incline in their profiles. The San Juan 29-7 Unit #583 well in Section 6 is a Pictured Cliffs-Fruitland Coal commingle and the subtraction formula results in an allocation to the Fruitland that produces a conventional decline rate. Conversely, the San Juan 29-7 Unit #519 well (also a Pictured Cliffs-Fruitland Coal commingle) shows a decline rate due to the allocation formula that is consistent with an overpressured, inclining profile. Other offsets, the San Juan 29-7 Unit #534, #544, and #546 show inclining initial rates consistent with being in the overpressured fairway.

Offsetting data for the San Juan 29-7 Unit #584 is similar to the above for the #520, as shown on the attachments. It should be noted that the supporting decline curves are only provided for Burlington operated wells.

Therefore, we are requesting is that a fixed allocation method be approved in wells that are in the underpressured fairway. Future applications for wells in the overpressured fairway should continue to utilize the subtraction method for volume allocation. We intend to test each zone independently to determine the proper percentage to assign to each zone. We will also collect gas samples for analysis to corroborate the percentages based on stream content.

Please let me know if you have further questions concerning the allocation for these two wells.

Sincerely,

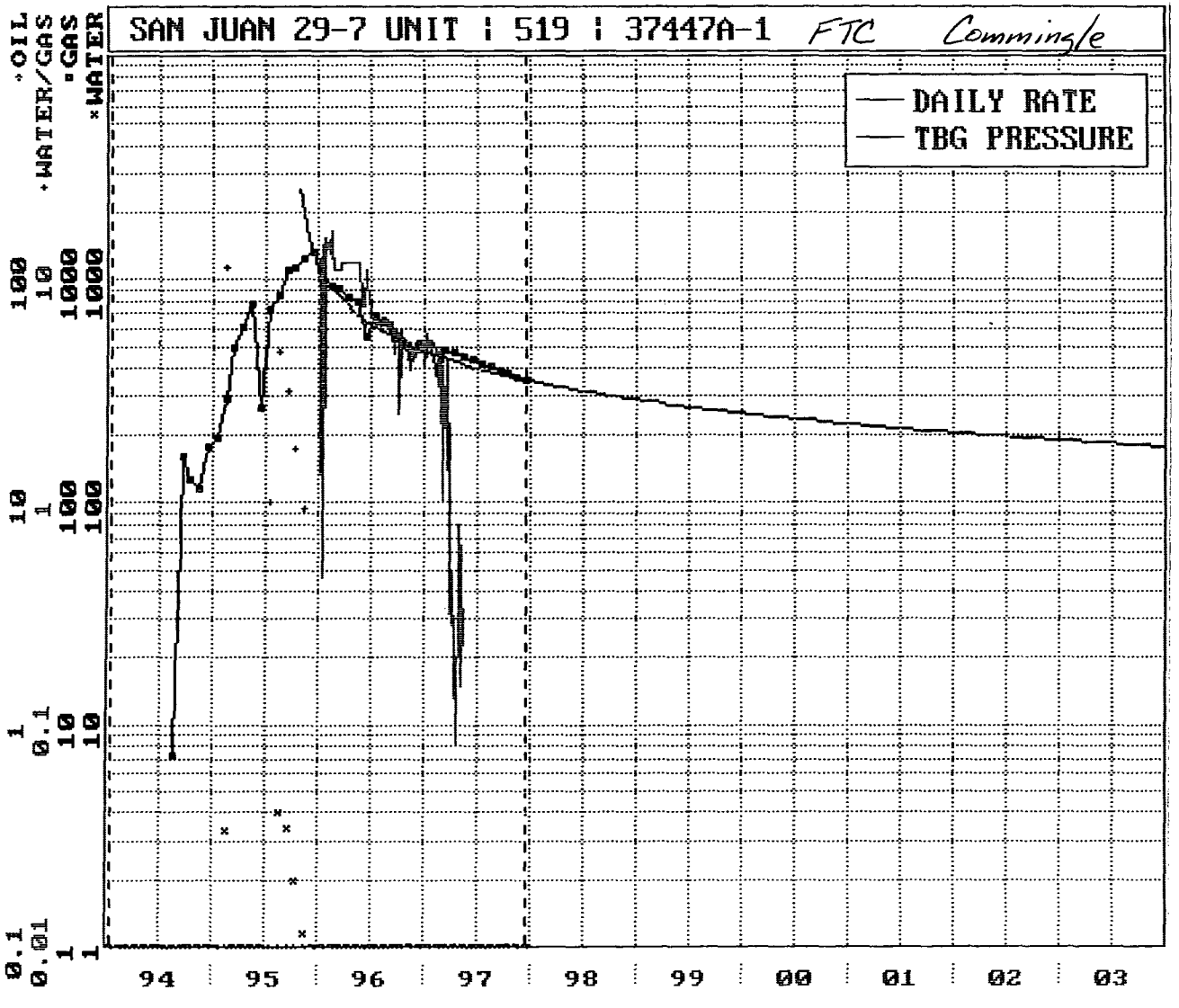
Peggy Bradfield
Regulatory/Compliance Administrator

xc: NMOCD - Aztec District Office
BLM - Farmington District Office

3535 East 30th St., 87402-8801, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

SAN JUAN 29-7 UNIT #520
T29N, R7W, SEC. 8 L, RIO ARRIBA COUNTY, NM
FRUITLAND COAL

SAN JUAN 29-7 UNIT #584
T29N, R7W, SEC. 6 G, RIO ARRIBA COUNTY, NM
FRUITLAND COAL


SAN JUAN 29-7 UNIT : 519 : 37447A-1 FTC Commingle
DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
100
10
1000
1000
10
1
100
100
1
0.1
10
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0.1
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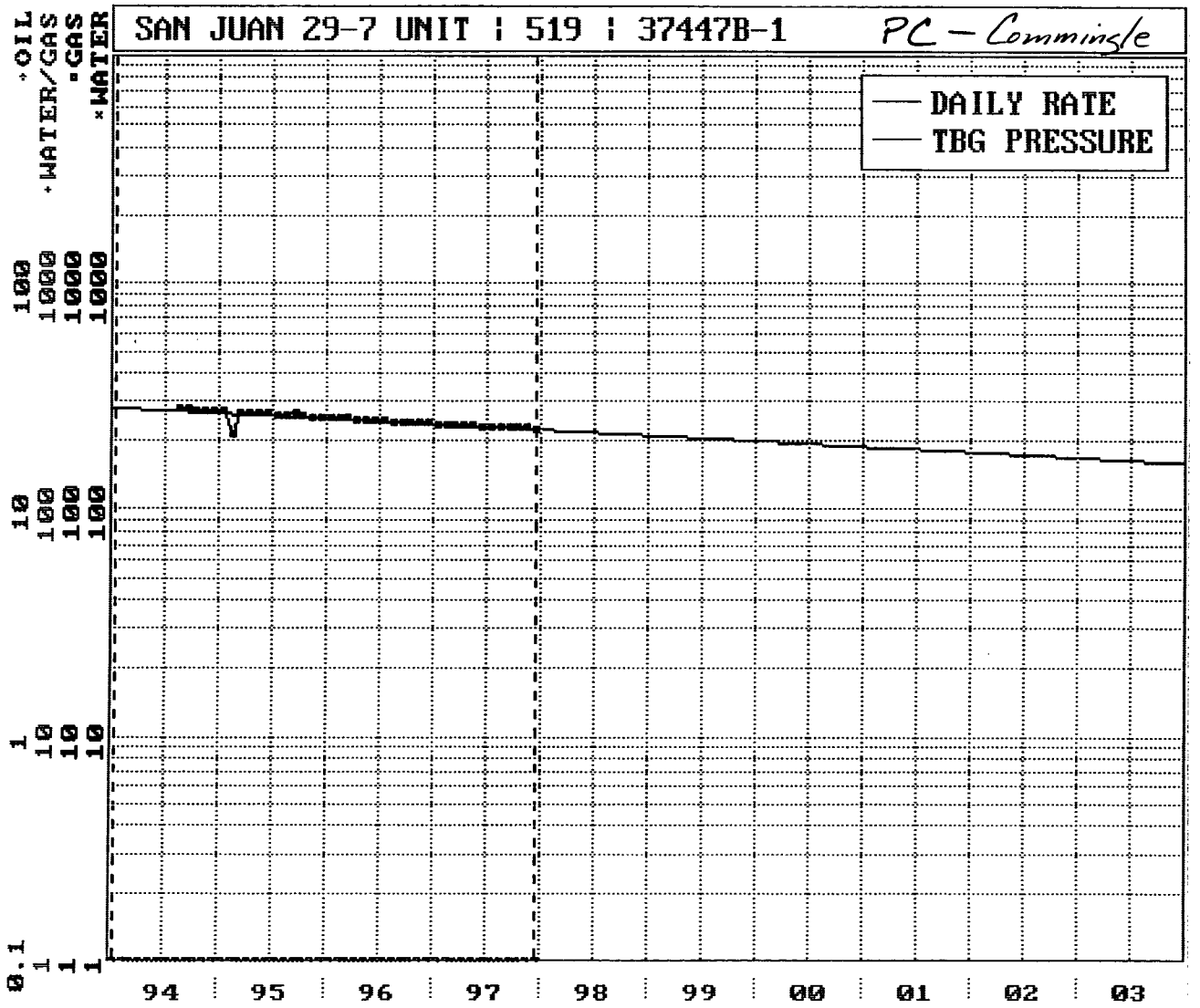
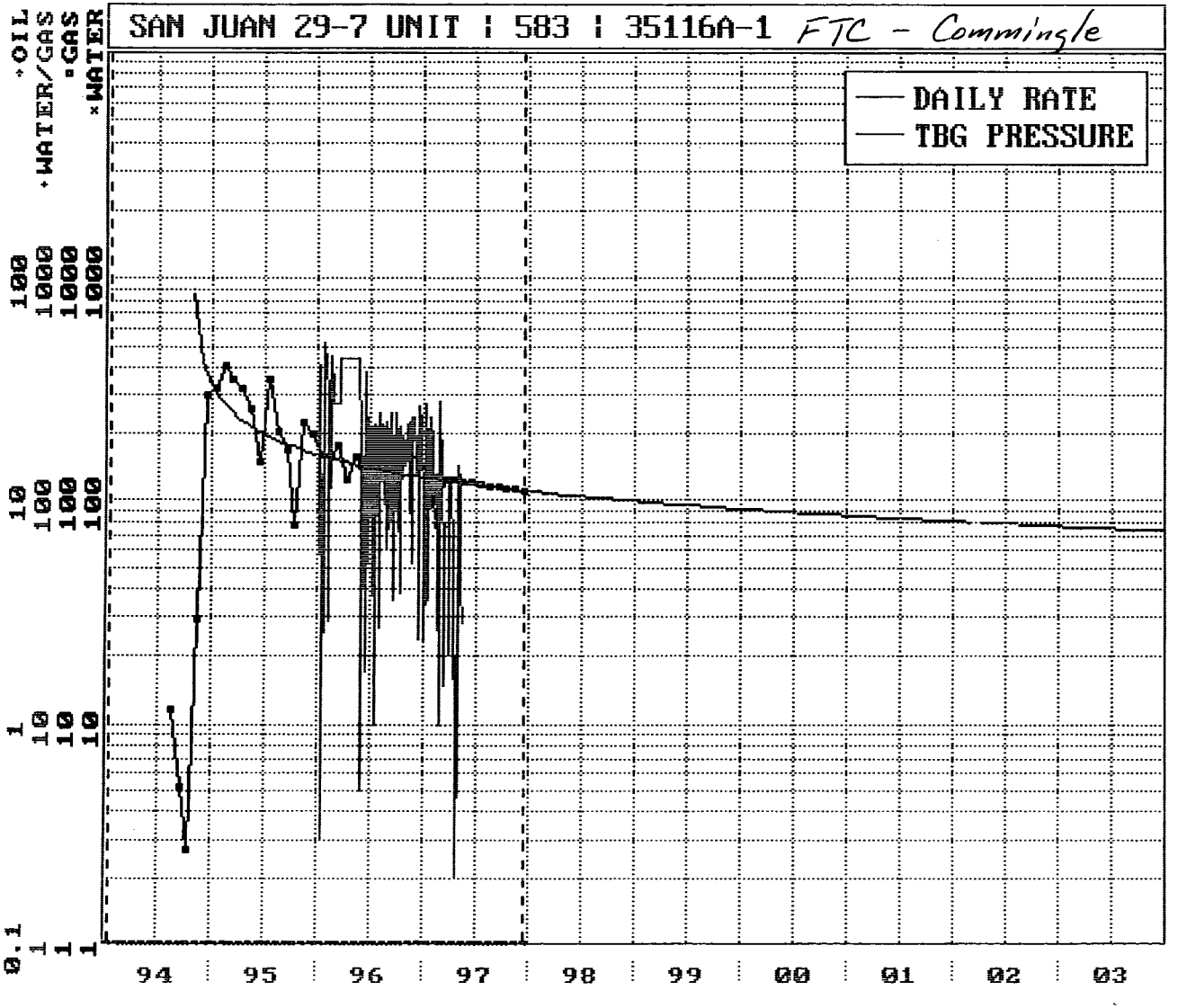
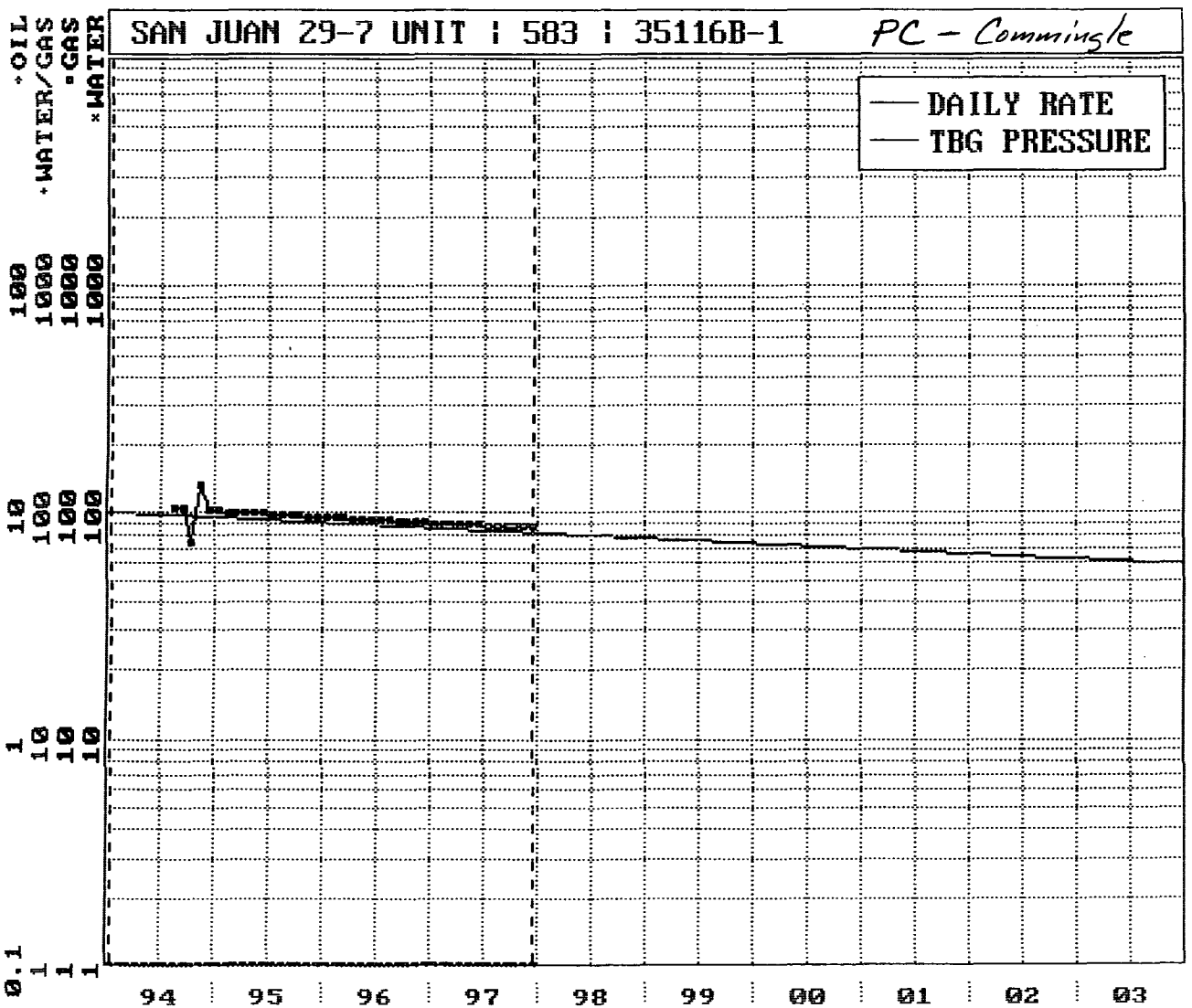
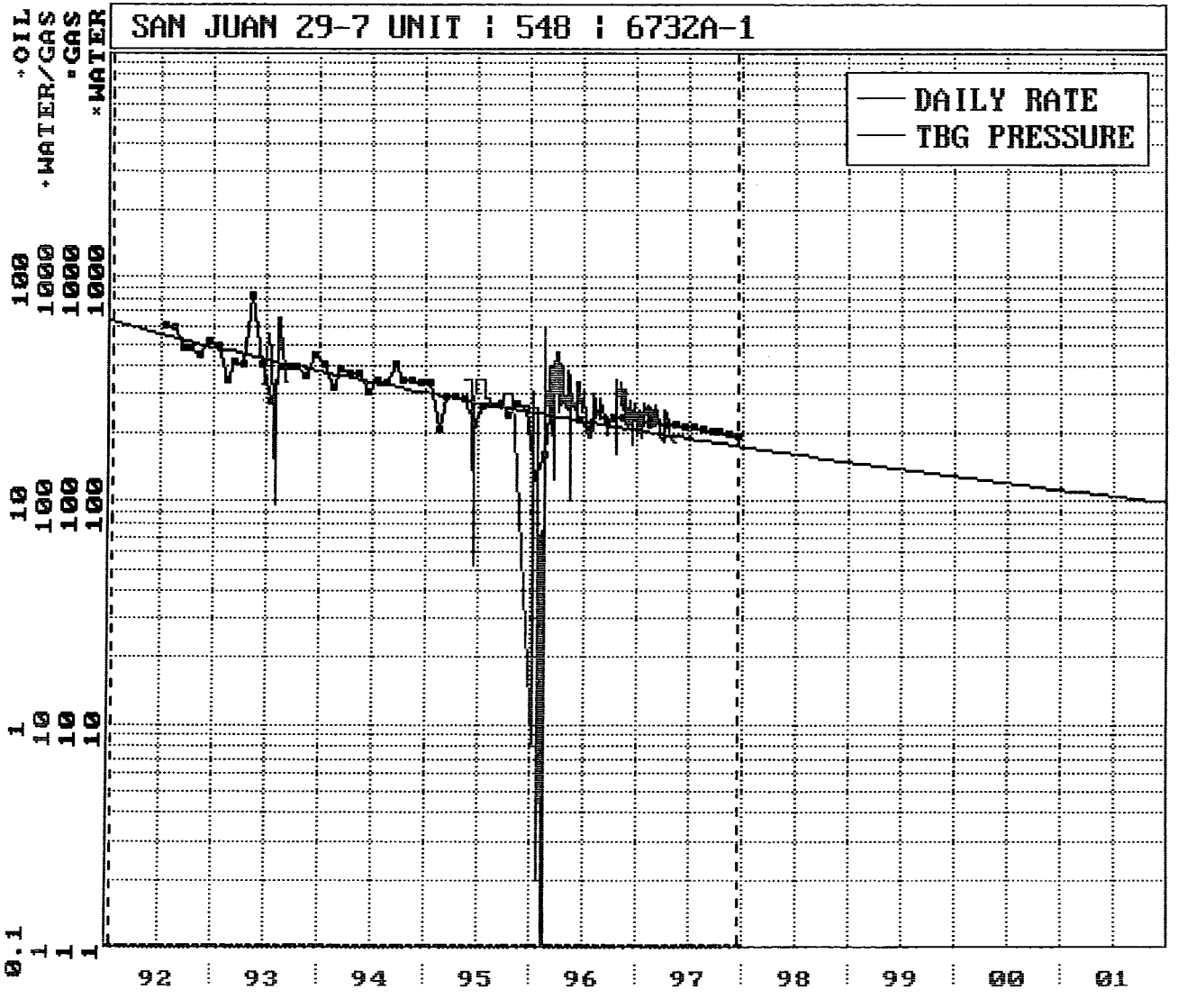
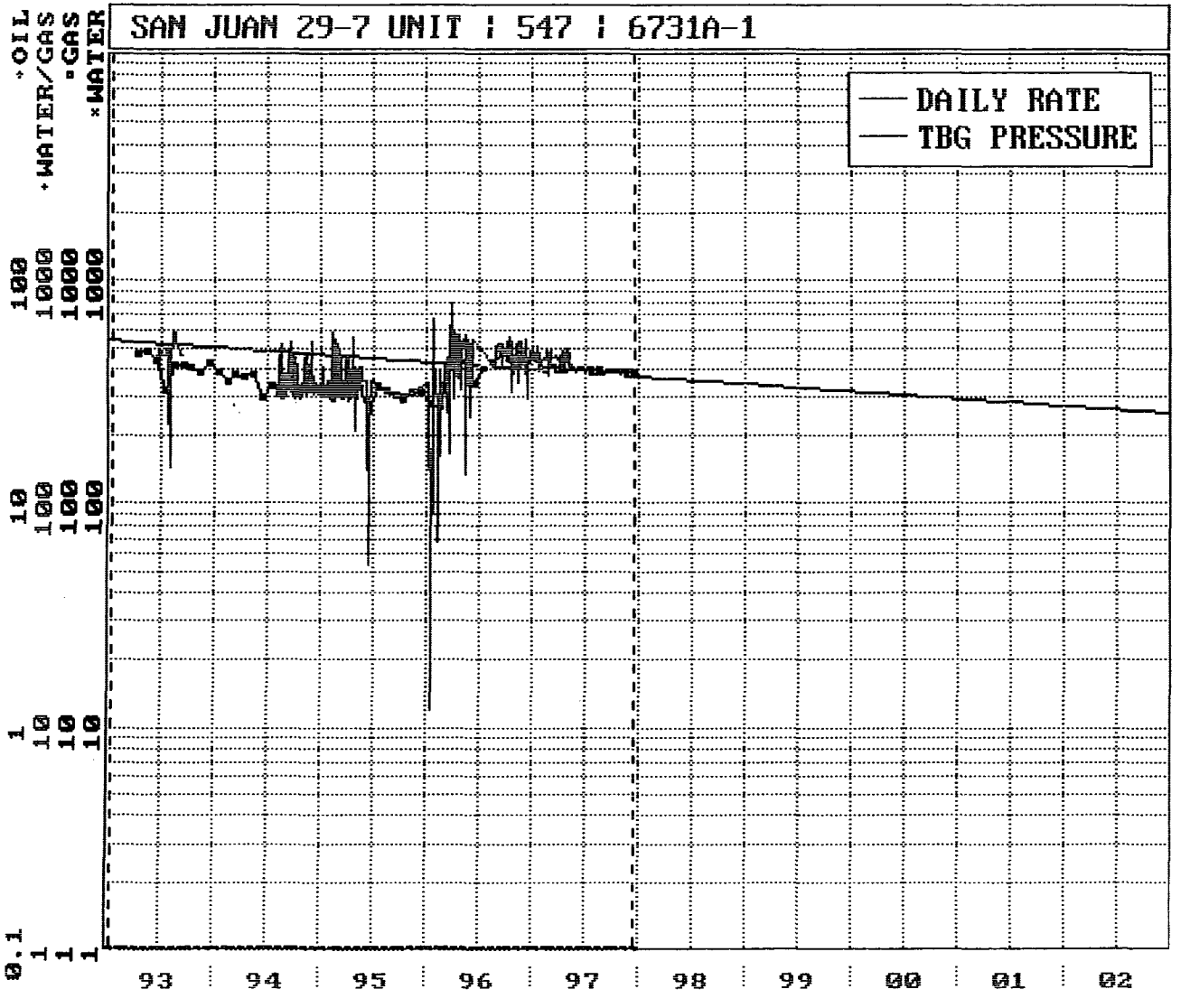
1
94
95
96
97
98
99
00
01
02
03


SAN JUAN 29-7 UNIT : 519 : 37447B-1
PC – Commingle
DAILY RATE
TBG PRESSURE
*OIL
+WATER/GAS
▪GAS
×WATER
94
95
96
97
98
99
00
01
02
03


SAN JUAN 29-7 UNIT | 583 | 35116A-1 FTC - Commingle
DAILY RATE
TBG PRESSURE
•OIL
•WATER/GAS
•GAS
•WATER
0.1
1
10
100
1000
94
95
96
97
98
99
00
01
02
03


SAN JUAN 29-7 UNIT : 583 : 35116B-1
PC - Commingle
DAILY RATE
TBG PRESSURE
•OIL
•WATER/GAS
•GAS
•WATER
94
95
96
97
98
99
00
01
02
03


SAN JUAN 29-7 UNIT : 548 : 6732A-1
DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
0.1
1
10
100
1
10
100
1000
1
10
100
1000
92
93
94
95
96
97
98
99
00
01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DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
100
1000
1000
1000
10
100
100
100
1
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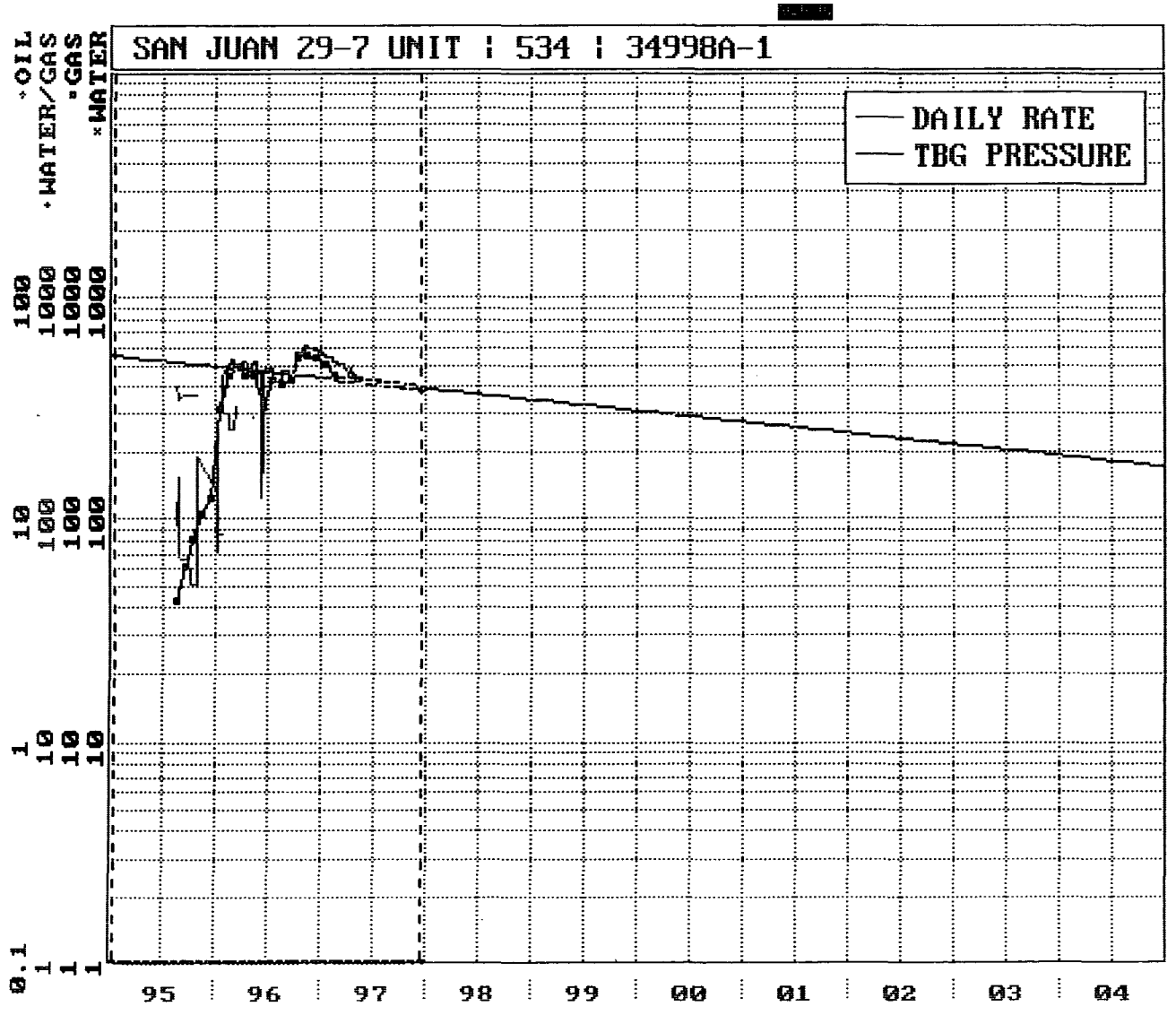
93
94
95
96
97
98
99
00
01
02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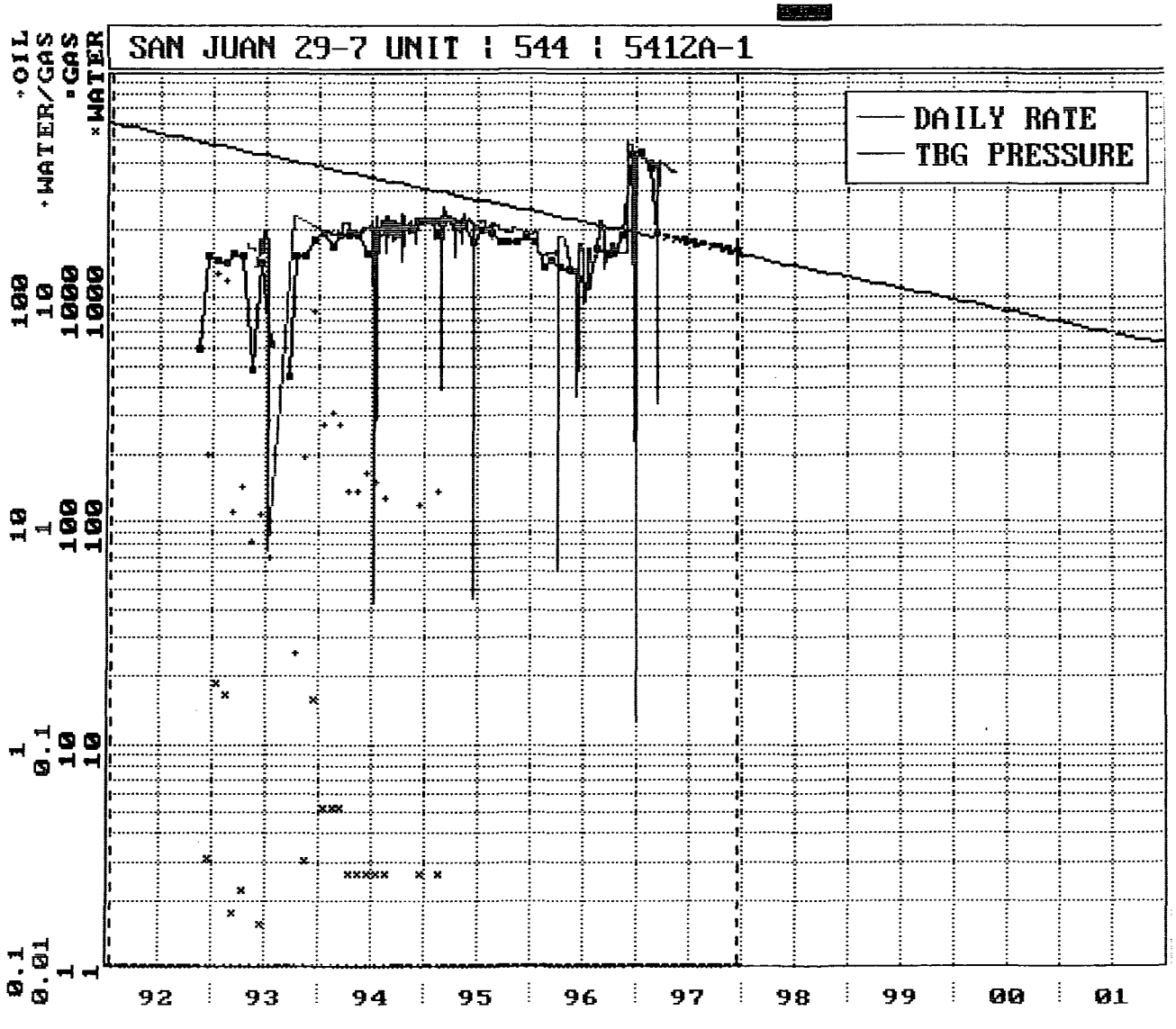
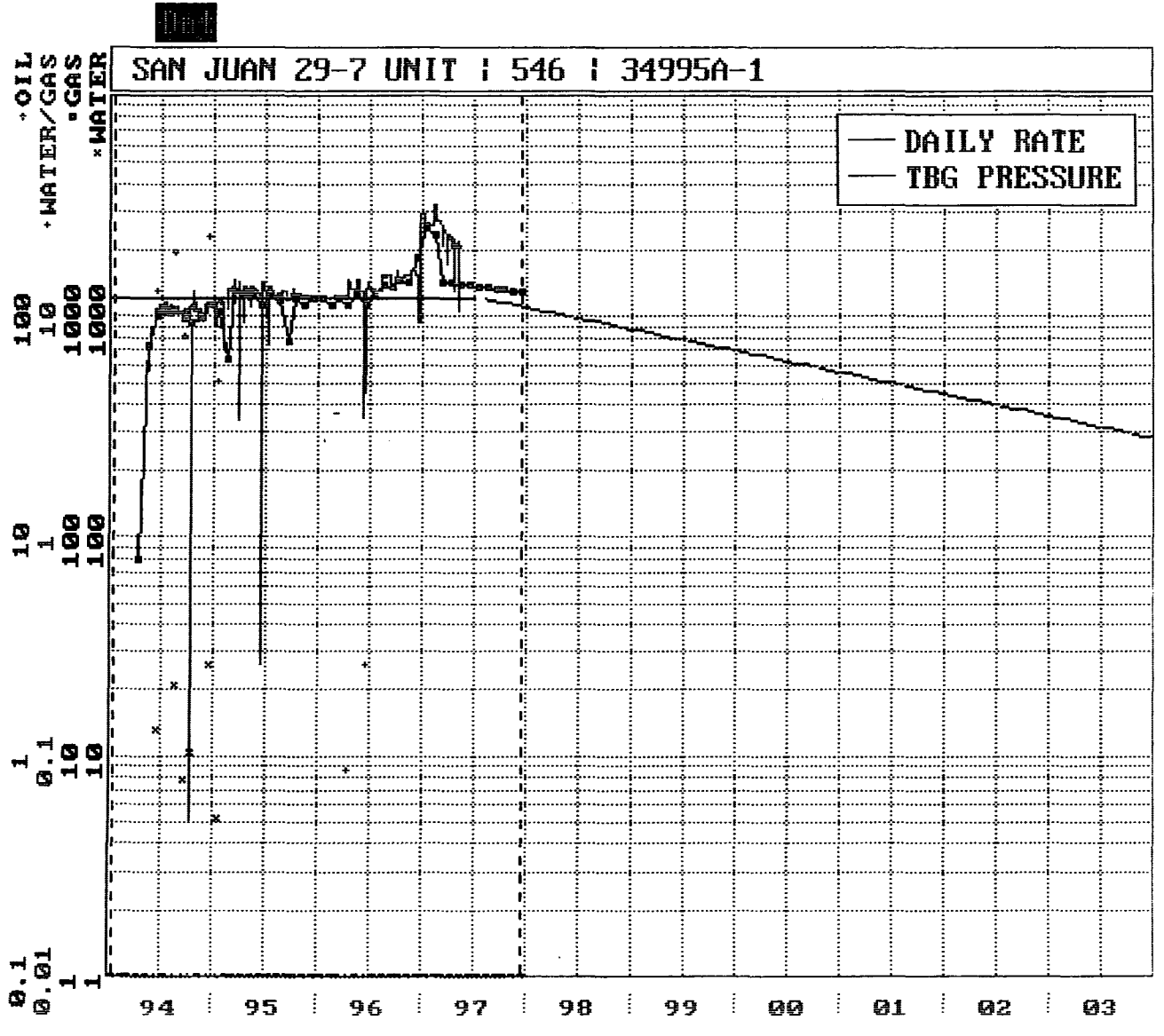
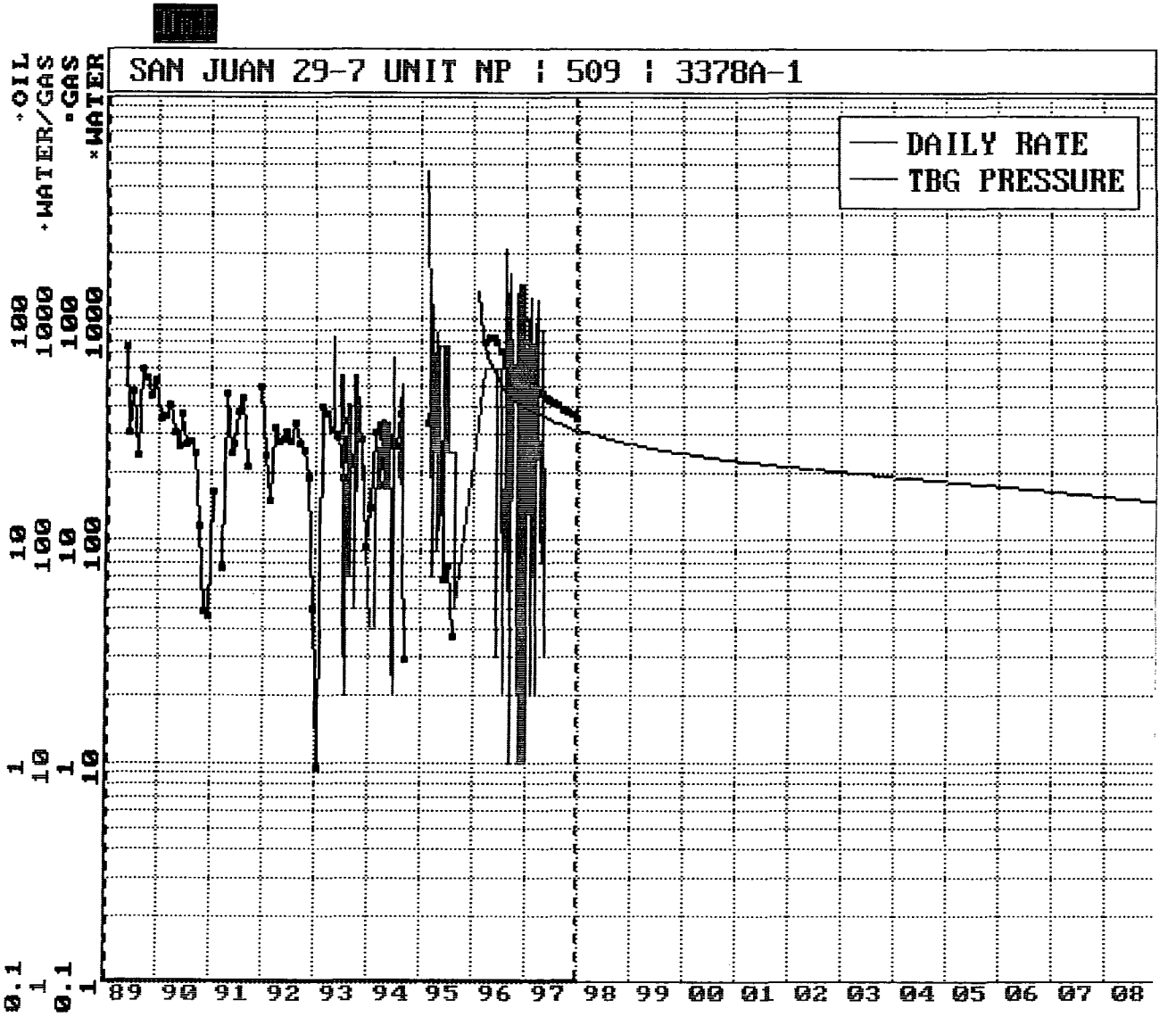
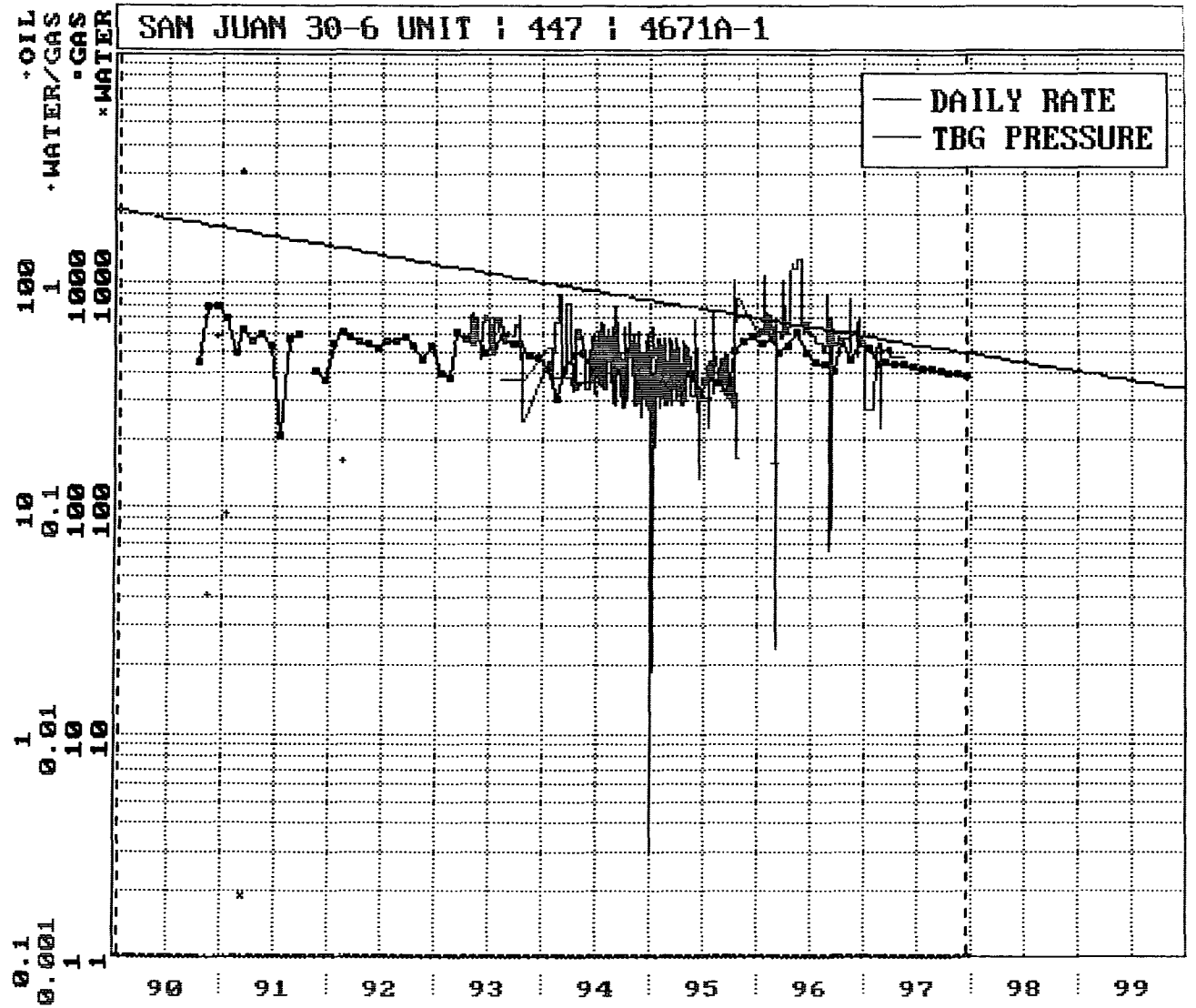
DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
0.1
1
1
1
1
10
10
10
10
100
100
100
100
1000
1000
1000
95
96
97
98
99
00
01
02
03
04


SAN JUAN 29-7 UNIT : 544 : 5412A-1
DAILY RATE
TBG PRESSURE
•OIL
•WATER/GAS
▪GAS
×WATER
100
10
1000
10000
10
1
100
1000
1
0.1
10
10
0.1
0.01
1
1
92
93
94
95
96
97
98
99
00
01


SAN JUAN 29-7 UNIT : 546 : 34995A-1
DAILY RATE
TBG PRESSURE
+OIL
+WATER/GAS
•GAS
•WATER
94
95
96
97
98
99
00
01
02
03


SAN JUAN 29-7 UNIT MP : 509 : 3378A-1
DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08


SAN JUAN 30-6 UNIT : 447 : 4671A-1
DAILY RATE
TBG PRESSURE
•OIL
•WATER/GAS
▪GAS
×WATER
100
1
1000
1000
10
0.1
100
100
1
0.01
10
10
0.1
0.001
1
1
90
91
92
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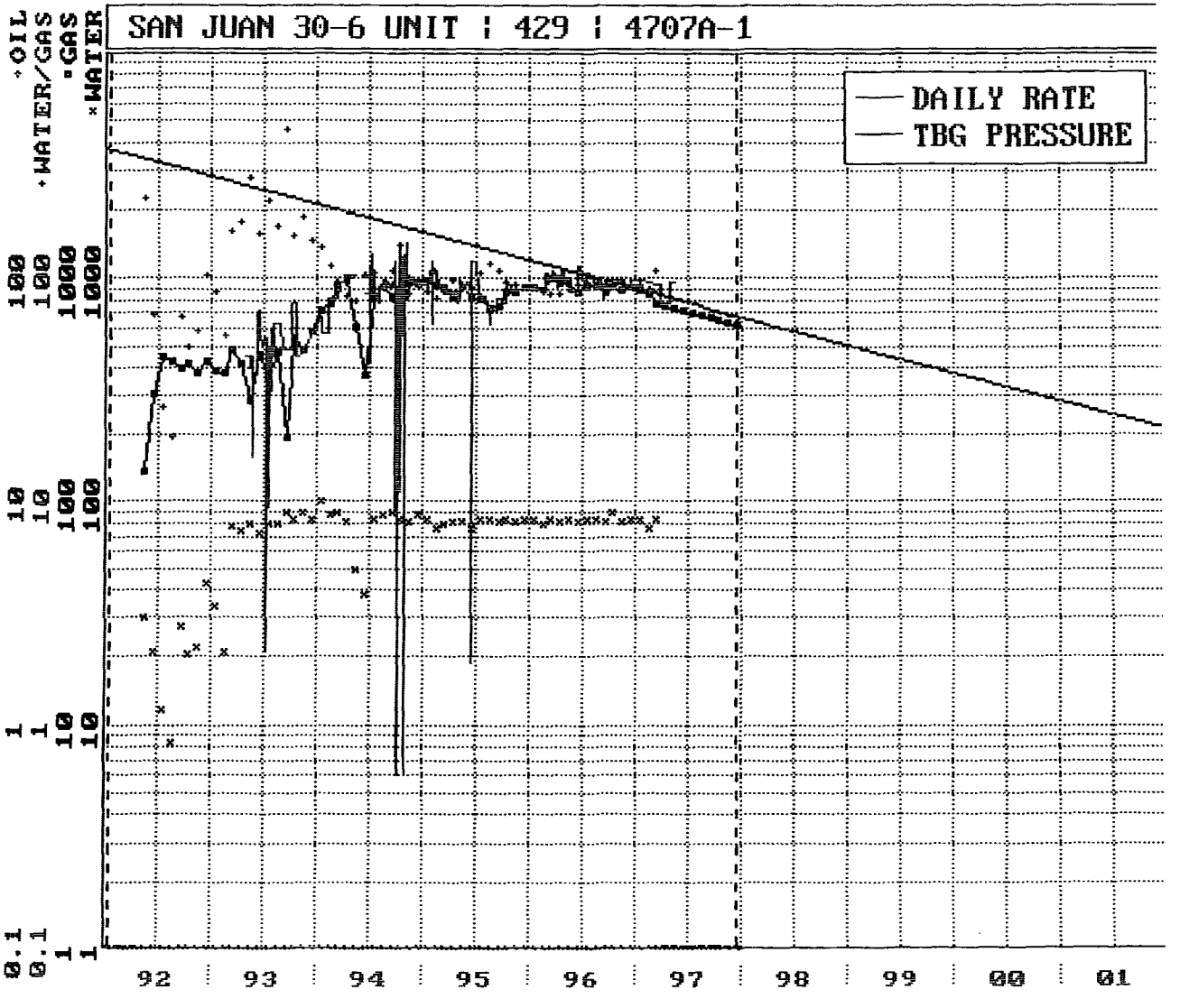
SAN JUAN 30-6 UNIT : 429 : 4707A-1
DAILY RATE
TBG PRESSURE
*OIL
*WATER/GAS
*GAS
*WATER
100
100
1000
1000
10
10
100
100
1
1
10
10
0.1
0.1
1
1
92
93
94
95
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NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

July 2, 1997

Burlington Resources Oil & Gas Company
P.O. Box 4289
Farmington, New Mexico 87499-4289

Attention: Ms. Peggy Bradfield

Re: Downhole Commingling Applications
San Juan 29-7 Unit Well Nos.520 & 584
Sections 8 & 6, T-29N, R-7W

Dear Ms. Bradfield:

Reference is made to your recent applications to downhole commingle the South Blanco-Pictured Cliffs and Basin-Fruitland Coal Gas Pools within the subject wells. Please be advised that the Division is concerned about the allocation formula to be utilized in allocating production from these wells. Historically, in instances involving the Basin-Fruitland Coal Gas Pool, the Division has approved a "calculated" type method of allocation due to the unique producing characteristics of the Fruitland Coal reservoir. It appears that Burlington is not proposing that this type of allocation formula be adopted for these wells.

Please furnish additional information regarding the allocation formula proposed to be utilized for these wells in order that the Division may make a determination as to the suitability of such method. If I can be of further assistance, please contact me at (505) 827-8184.

Sincerely,

David Catanach
Engineer

xc: William J. LeMay
OCD-Aztec