IP1139 NR

FAX

Date 5/26/2000

Number of pages including cover sheet 6

TO:
Mr. David Catanach
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Sante Fe, New Mexico

Phone
Fax Phone *(505) 827-1389*

FROM:
Gary Munson
Amoco Production Company
200 Amoco Court
Farmington, NM 87401

Phone *(505) 326-9443*
Fax Phone

CC:

REMARKS: ☐ *Urgent* ☒ *For your review* ☐ *Reply ASAP* ☐ *Please Comment*

Please see attached letter requesting your approval of an increased injection pressure limit on the Gallegos Canyon Unit 13 No. 1, Administrative Order No. SWD 450.

Amoco Production Company
200 Amoco Court
Farmington, NM 87401

May 26, 2000

Mr. David Catanach
State of New Mexico
Oil Conservation Division
P.O. Box 2088
Sante Fe, New Mexico 87504

Administrative Order No. SWD 450
Amoco Production Company
Gallegos Canyon Unit 13 No. 1
Sec. 13, T29N, R13W

Amoco is requesting an increase in the maximum allowable surface injection pressure on the subject well. A recent step rate test conducted May 4, 2000, indicates that the fracture closure pressure is 1990 psi subsurface. This pressure equates to a surface pressure of 761 psi.

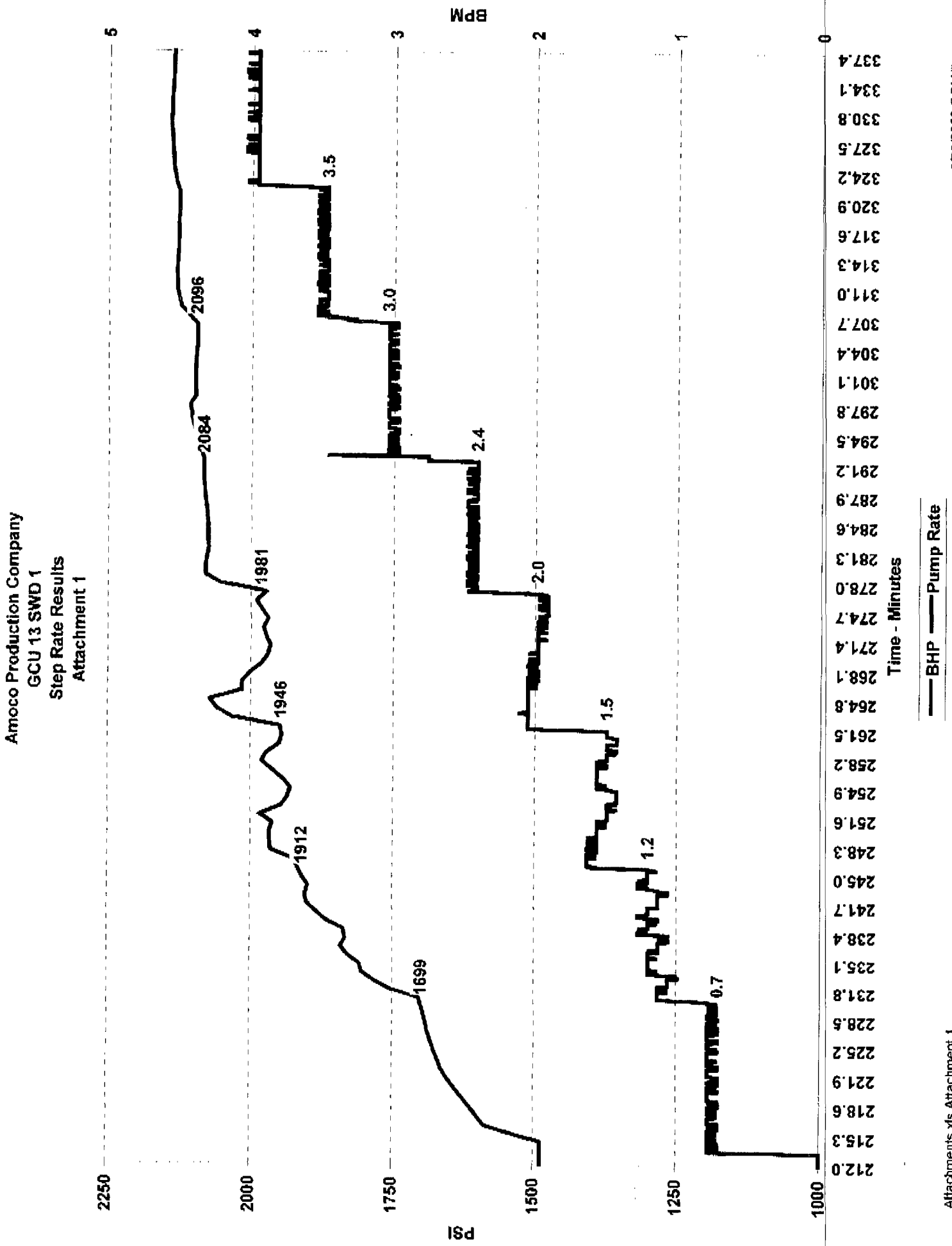
The step rate test was conducted using a Schlumberger Dowell pump truck. Dual Amerada RPG-3 pressure recorders set at a depth of 2755' were used to record bottom hole pressure. The well was shut-in 24 hours prior to the test. A total of eight separate pressures and rates were were recorded in intervals of 15 minutes each. The rates ranged from approximately 0.7 bpm at 400 psi to 4 bpm at 1080 psi.

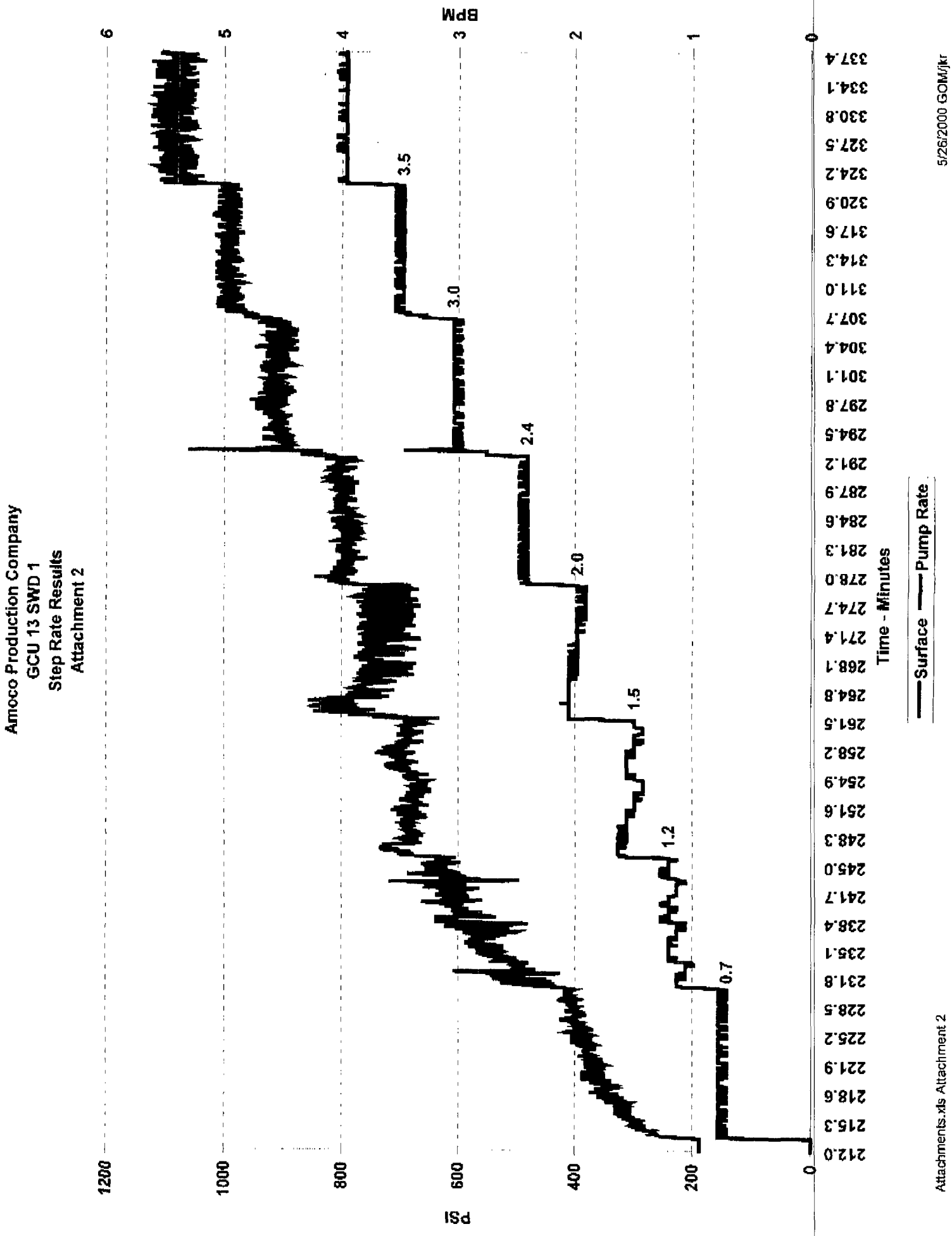
Pressure and injection rate plots of the step rate test are included as Attachments No. 1 and No. 2. The data points chosen for the fracture closure pressure analysis are shown on Attachment No. 1. The analysis of fracture closure pressure is included as Attachment No. 3. The intersection of the lines on Attachment No. 3 at approximately 2030 psi and 1.5 bpm is an upper bound on the closure pressure of the formation. By extrapolating the top line back to a rate of 0 bpm, an estimate of 1990 psi is obtained for acutal closure pressure. This equates to a surface pressure of 761 psi.

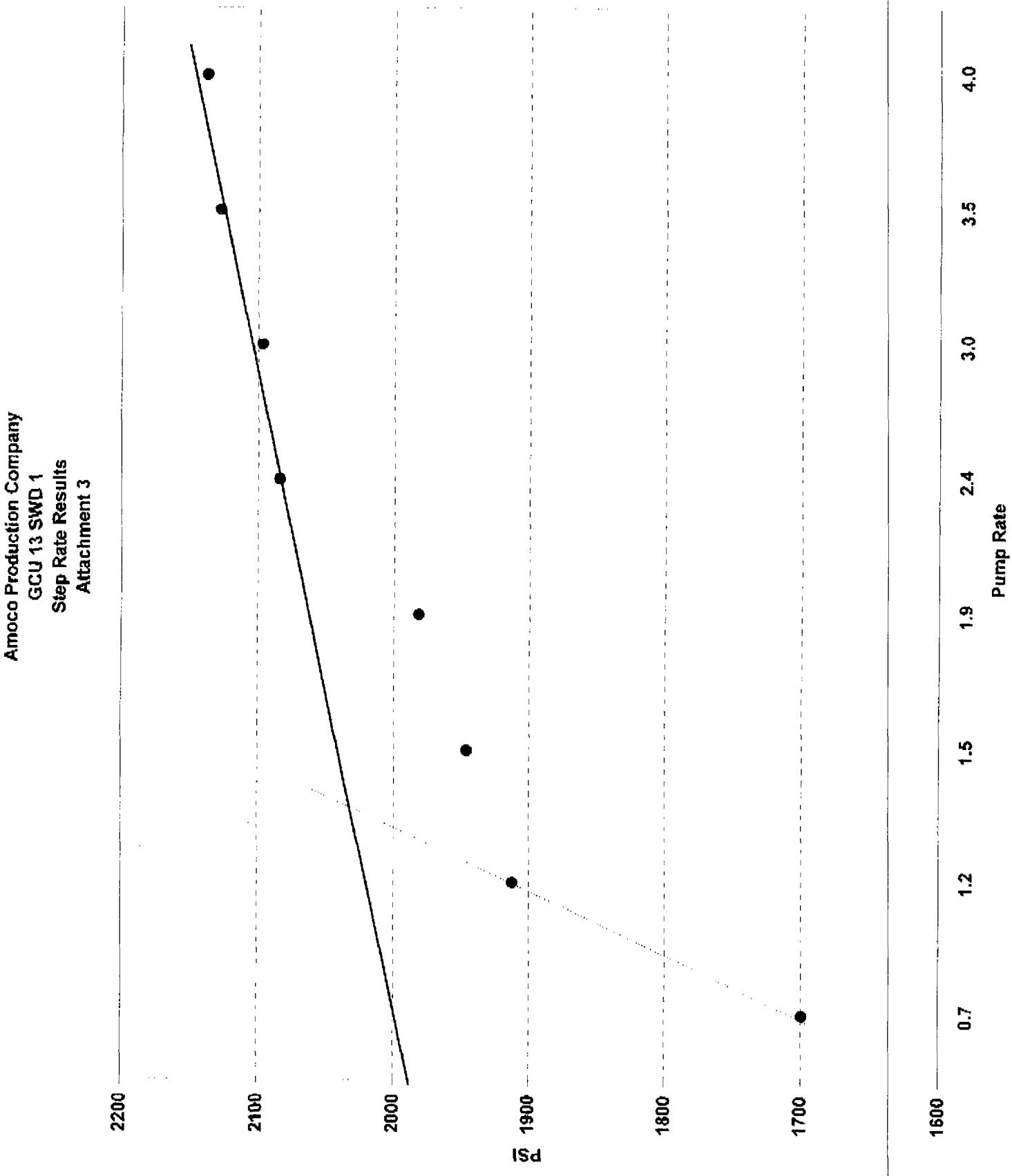
If you have any questions, please contact me at (505) 326-9443.

Gary Munson
Operations Engineer

Attachments


Amoco Production Company
GCU 13 SWD 1
Step Rate Results
Attachment 1
BPM
PSI
Time - Minutes
BHP
Pump Rate
2096
2084
1981
1946
1912
1699
3.5
3.0
2.4
2.0
1.5
1.2
0.7
5/26/2000 GOM/jkr
Attachments.xls Attachment 1

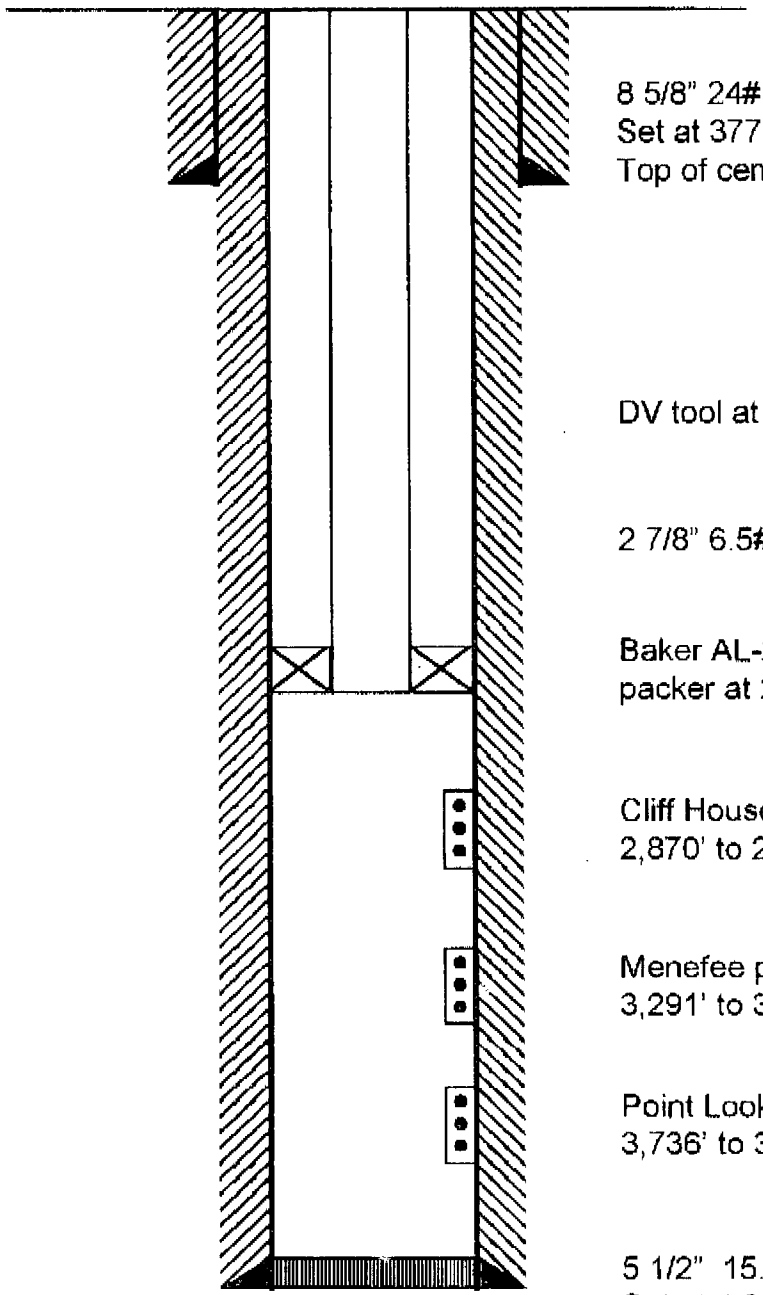

Amoco Production Company
GCU 13 SWD 1
Step Rate Results
Attachment 2
BPM
PSI
Time - Minutes
Surface
Pump Rate
3.5
3.0
2.4
2.0
1.5
1.2
0.7
5/26/2000 GOM/jkr
Attachments.xls Attachment 2


Amoco Production Company
GCU 13 SWD 1
Step Rate Results
Attachment 3
2200
2100
2000
1900
1800
1700
PSI
1600
0.7
1.2
1.5
1.9
2.4
3.0
3.5
4.0
Pump Rate
5/26/2000 GOM/jkr
Attachments.xls Attachment 3

GCU 13 SWD 1

Sec. 13, T29N-R13W
API 3004528601

Wellbore Schematic



8 5/8" 24# J-55 Surface Casing
Set at 377'
Top of cement - surface

DV tool at 1,977'

2 7/8" 6.5# J-55 8rd tubing

Baker AL-2 Lok-set
packer at 2,775' with on-off tool

Cliff House perforations
2,870' to 2,972'

Menefee perforations
3,291' to 3,604'

Point Lookout perforations
3,736' to 3,762'

PBTD 3,969'

TD 4,008'

5 1/2" 15.5# J-55 Casing
Set at 4,007' (650 sxs)
Top of cement - surface

Not to scale

5/23/00
jkr