

Mobil Producing Texas & New Mexico Inc.

P.O. BOX 633
MIDLAND, TEXAS 79702

May 27, 1987

State of New Mexico
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: W. J. LeMay

MOBIL PRODUCING TX. & N.M., INC.
NORTH VACUUM ABO UNIT
WATER INJECTION WELL NOS. 112,
116, 139 AND 163
NORTH VACUUM ABO FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

Under the provisions of Order No. WFX-557 dated February 11, 1986, and PMX-138 dated November 12, 1985, Mobil Producing Texas & New Mexico, Inc. (MPTM) was granted permission to inject water into the Abo formation for the subject wells. The order limited the pressure on the injection wells to no more than 0.2 psi per foot to the uppermost injection interval. MPTM has completed step-rate tests for these wells which show that higher pressure will not result in migration of the injected fluid from the Abo formation. MPTM therefore requests an increase in the injection pressure as follows:

	<u>Injection Interval</u>	<u>Present Surface Inj. Pressure Limit</u>	<u>Requested Surface Inj. Pressure Limit</u>
Well No. 112 Unit D, Sec. 25 T-17-S, R-34-E PMX-138	8392-9991'	3260 psig.	3620 psig.
Well No. 116 Unit L, Sec. 24 T-17-S, R-34-E PMX-138	8438-8497'	1688 psig	3230 psig

	<u>Injection Interval</u>	<u>Present Surface Inj. Pressure Limit</u>	<u>Requested Surface Inj. Pressure Limit</u>
Well No. 139 Unit L, Sec. 14 T-17-S, R-34-S WFX-557	8587-8661'	1717 psig.	2970 Psig.
Well No. 163 Unit J, Sec. 15 T-17-S, R-34-E WFX-557	8710-8753'	1742 psig.	2925 psig.

Enclosed are copies of the step rate tests.

Yours very truly,



M. E. Sweeney
Environmental & Regulatory Mgr.

CCSmith/

Attachments

cc: District Director OCD-Hobbs

Company Mobil Producing							Unit
Test Date 5-20-87							Lease NVAU #112
Total Depth 10,230		Plug Back TD 9971		Elevation			Well # 112
Csg size 7"	Wt 23#	d	Set at 9971	Perfs: From 8392	To 9991		Sec Twp-Blk Rge
Tbg size 2 3/8	Wt	d	Set at	Perfs: From	To		County Lea State NM
Producing thru 2 3/8 Packer set at 8310							Co. Rep David Howell
Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
9:47	SI			2970			
9:50	Start	100		2970			
9:55		100		2980			
10:00		100		2980			
10:05		100	1.0	2980			
10:10		200		2990			
10:15		200		3000			
10:20		200	2.1	3010			
10:25		300		3030			
10:30		300		3040			
10:35		300	3.1	3050			
10:40		400		3080			
10:45		400		3100			
10:50		400	4.2	3120			
10:55		500		3140			
11:00		500		3160			
11:05		500	5.3	3190			
11:10		600		3230			
11:15		600		3250			
11:20		600	6.4	3290			
11:25		700		3320			
11:30		700		3350			
11:35		700	7.3	3370			
11:40		800		3420			
11:45		800		3440			
11:50		800	8.3	3470			
11:55		900		3510			
12:00		900		3540			
12:05		900	9.4	3570			

Step Rate Test

Page 2

Phone (505) 397-3914

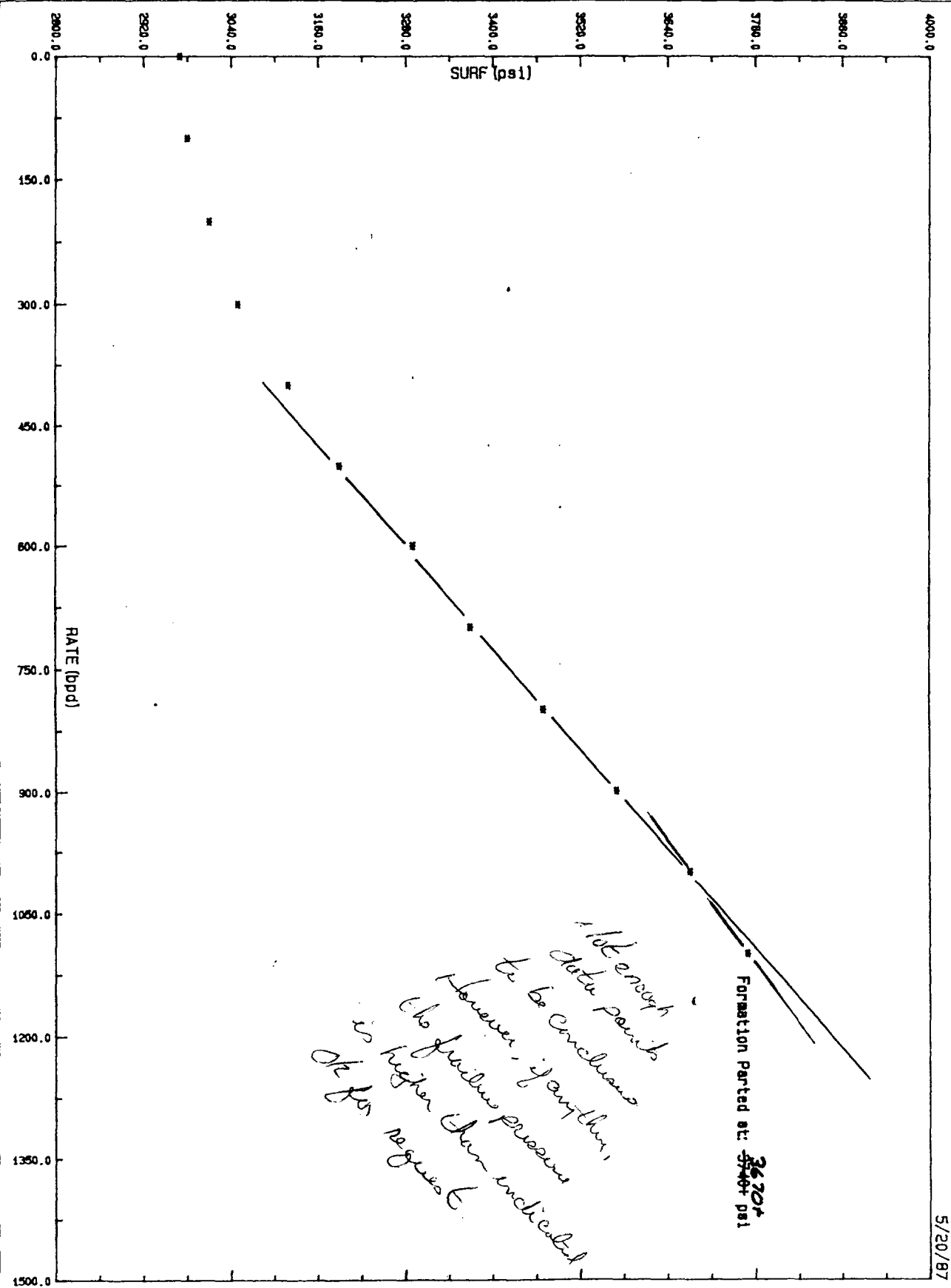
Hobbs, New Mexico 88240

Company Mobil Producing										Test Date 5-20-87			Unit		
Total Depth		10,230		Plug Back TD		9971		Elevation		Lease NVAU					
Csg size		7" Wt 23#		Set at		9971		Perfs: From 8392 To 9991		Well # 112					
Tbg size		2 3/8 Wt		Set at				Perfs: From To		Sec Twp-Blk Rge					
Producing thru		2 3/8		Packer set at		8310				County State					
										Co. Rep					

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B & D WELL TESTERS

Customer: MOBIL PRODUCING
Well: N.V.A.U. #112



B & D WELL TESTERS, INC.

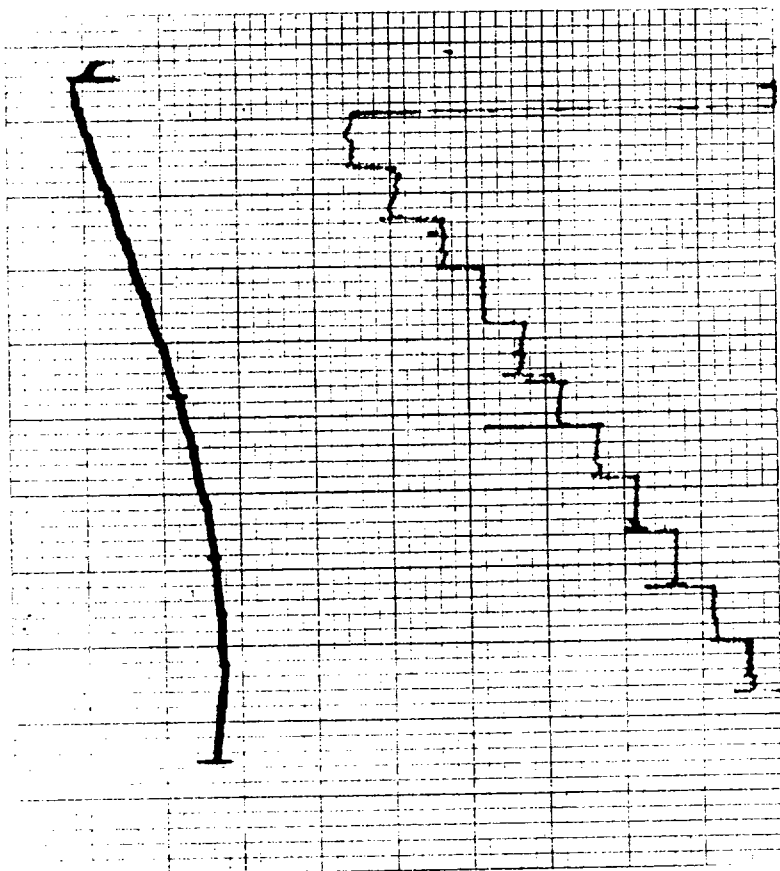
P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

MOBIL PRODUCING

NVAU #112

May 20, 1987



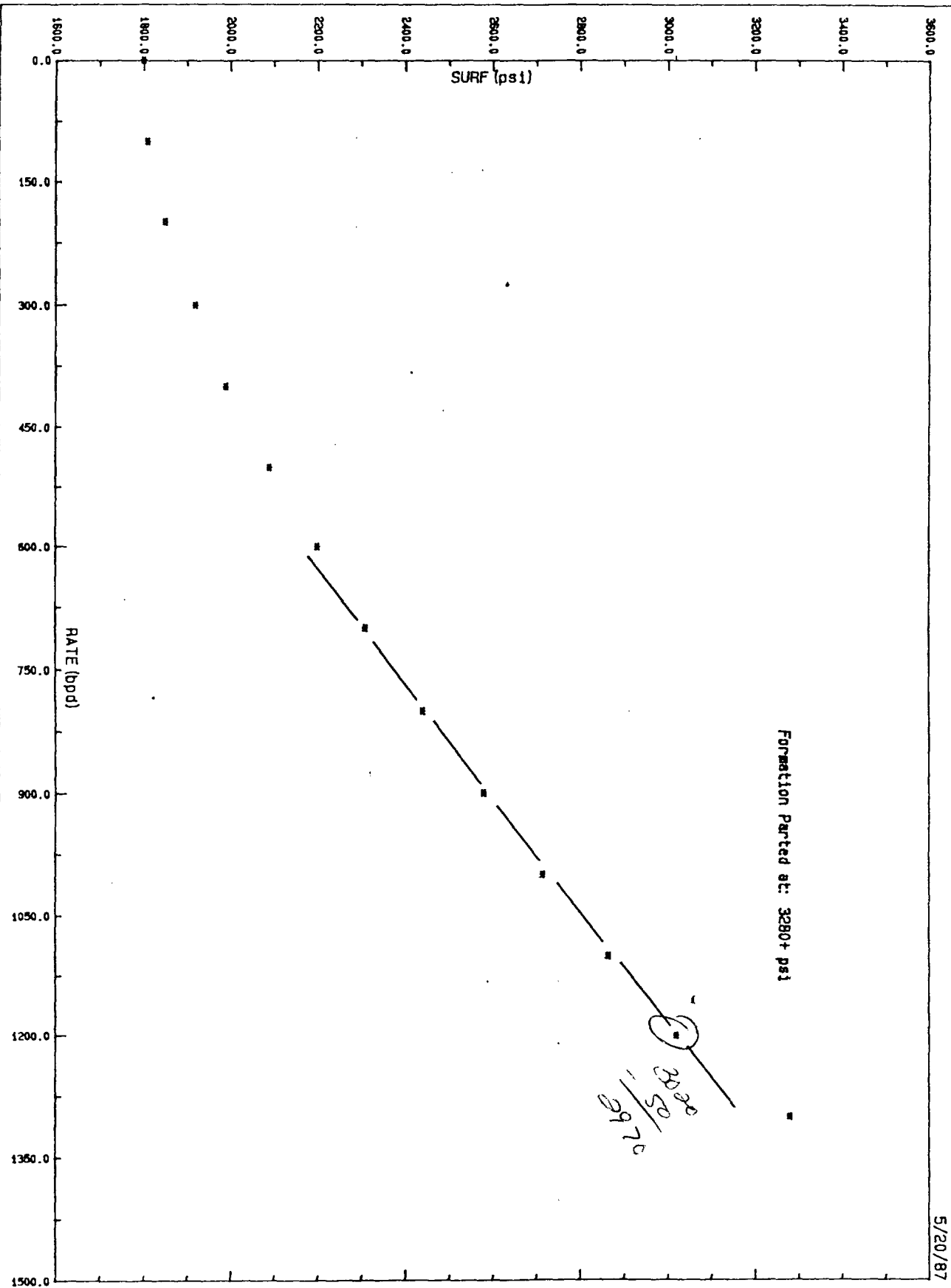
Company Mobil Producing						Test Date	5-20-87	Unit
Total Depth						Plug Back TD	Elevation	Lease NVAU
Csg size	Wt	d	Set at	Perfs: From	To	Well # 116		
Tbg size	Wt	d	Set at	Perfs: From	To	Sec 24 Twp-Blk 17S Rge 34E		
Producing thru						Packer set at	County Lea State NM	
Time of Reading	Elap Time Hrs.	Well Information					Remarks	
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP		
8:37	SI			1800				
8:40	start	100		1790				
8:45		100		1810				
8:50		100		1810				
8:55		100	1.0	1810				
9:00		200		1840				
9:05		200		1850				
9:10		200	2.1	1850				
9:15		300		1870				
9:20		300		1910				
9:25		300	3.1	1920				
9:30		400		1950				
9:35		400		1980				
9:40		400	4.2	1990				
9:45		500		2040				
9:50		500		2070				
9:55		500	5.2	2090				
10:00		600		2140				
10:05		600		2170				
10:10		600	6.2	2200				
10:15		700		2250				
10:20		700		2290				
10:25		700	7.3	2310				
10:30		800		2380				
10:35		800		2410				
10:40		800	8.3	2440				
10:45		900		2475				
10:50		900		2550				
10:55		900	9.4	2580				

Hobbs, New Mexico 88240

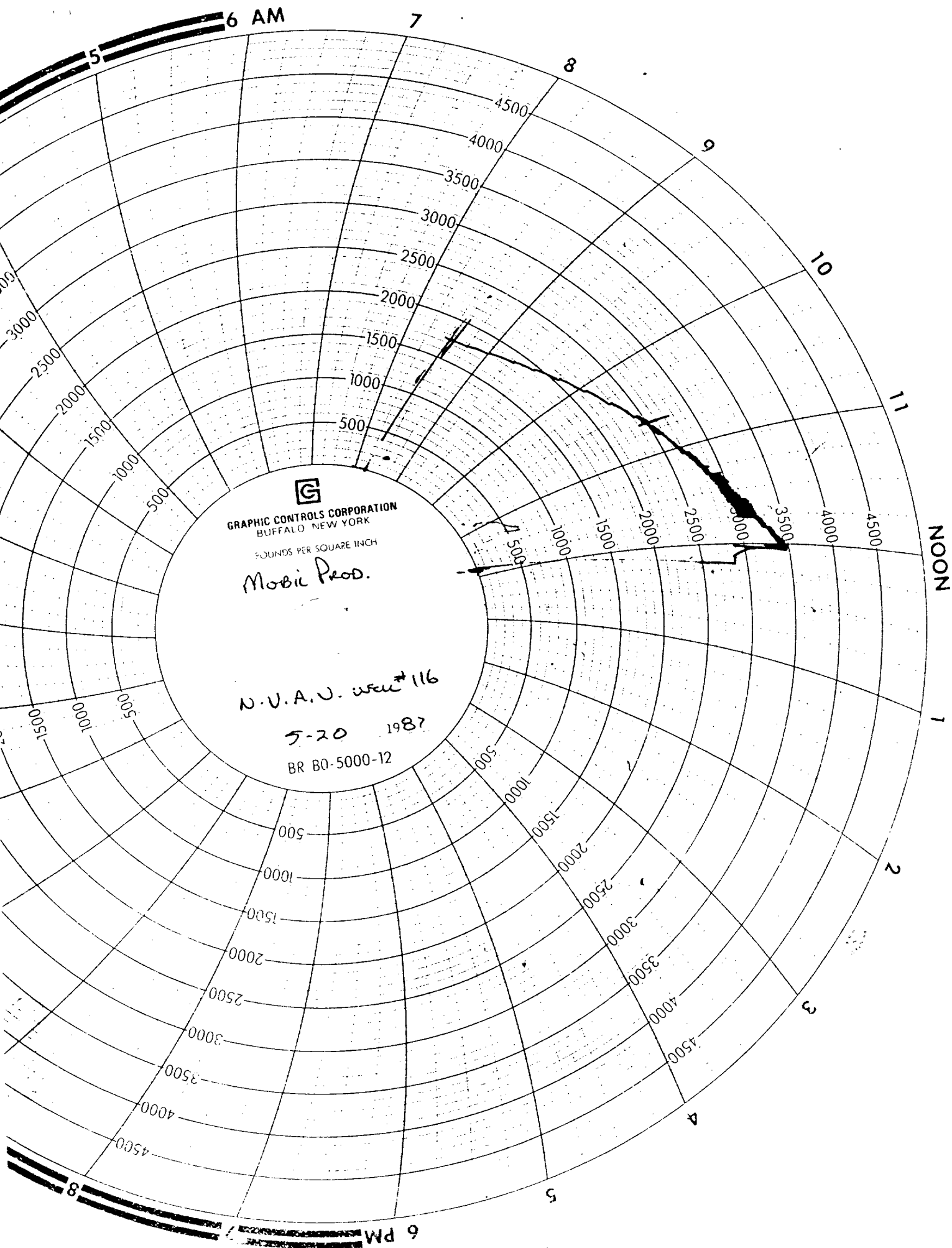
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B & D WELL TESTERS

Customer: MOBIL PRODUCING
Well: N.V.A.U. #116



5/20/87



B & D WELL TESTERS

Step Rate Test

Page 1

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Mobil Producing							Unit
Test Date 5-20-87							Lease NVAU
Total Depth 8750	Plug Back TD 8729		Elevation				Well # 139
Csg size 4 1/2 Wt 12.24 d	Set at 8551		Perfs: From 8587	To 8661	Sec Twp-Blk Rge		
Tbg size 2 3/8 Wt d	Set at		Perfs: From	To	County Lea State NM		
Producing thru 2 3/8		Packer set at 8489'			Co. Rep David Howell		
Well Information							Remarks
Time of Reading	Elap Time Hrs.	Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
1:55	SI			1720			
2:00	Start	100		1720			
2:05		100		1760			
2:10		100		1790			
2:15		100	1.0	1810			
2:20		200		1880			
2:25		200		1930			
2:30		200	2.1	1960			
2:35		300		2030			
2:40		300		2090			
2:45		300	3.1	2130			
2:50		400		2220			
2:55		400		2280			
3:00		400	4.2	2330			
3:05		500		2430			
3:10		500		2490			
3:15		500	5.3	2575			
3:20		600		2655			
3:25		600		2720			
3:30		600	6.3	2765			
3:35		700		2840			
3:40		700		2895			
3:45		700	7.4	2945			
3:50		800		3020			
3:55		800		3065			
4:00		800		3095			
4:05		900		3140			
4:10		900		3190			
4:15		900		3210			

Step Rate Test

Page 2

Phone (505) 397-3914

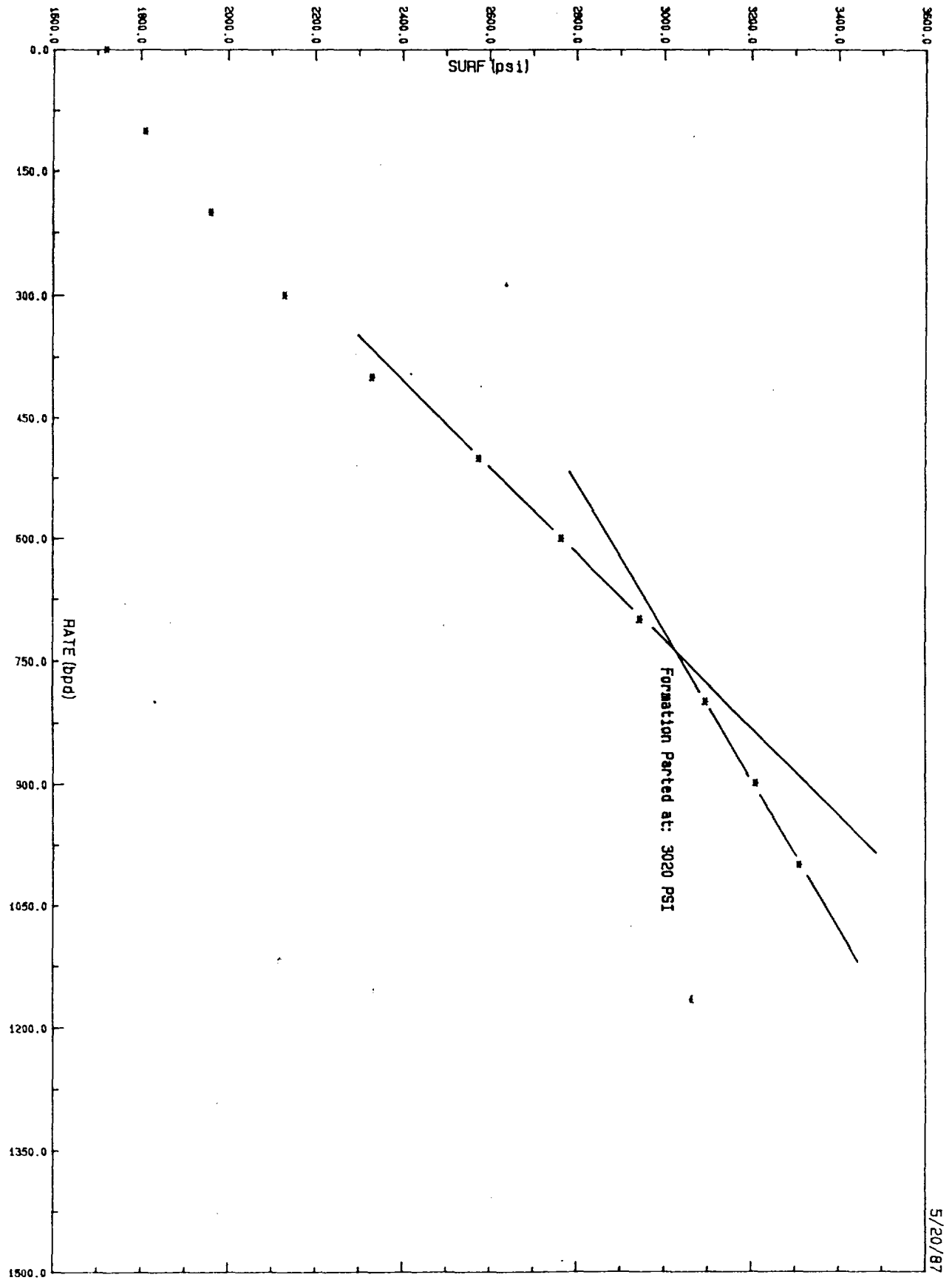
Hobbs, New Mexico 88240

											Unit		
Company	Mobil Producing						Test Date	5-20-87			Lease	NVAU	
Total Depth	8750		Plug Back TD.		8729		Elevation				Well #	139	
Csg size	4 1/2	Wt	12.24	d	Set at	8551	Perfs: From	8587	To	8661	Sec	Twp-Blk	Rge
Tbg size	2 3/8	Wt		d	Set at		Perfs: From		To		County	Lea	State
Producing thru	2 3/8				Packer set at	8489'						Co. Rep	David Howell

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B & D WELL TESTERS

Customer: MOBIL PRODUCTION
Well: N.V.A.U. #139



5/20/87

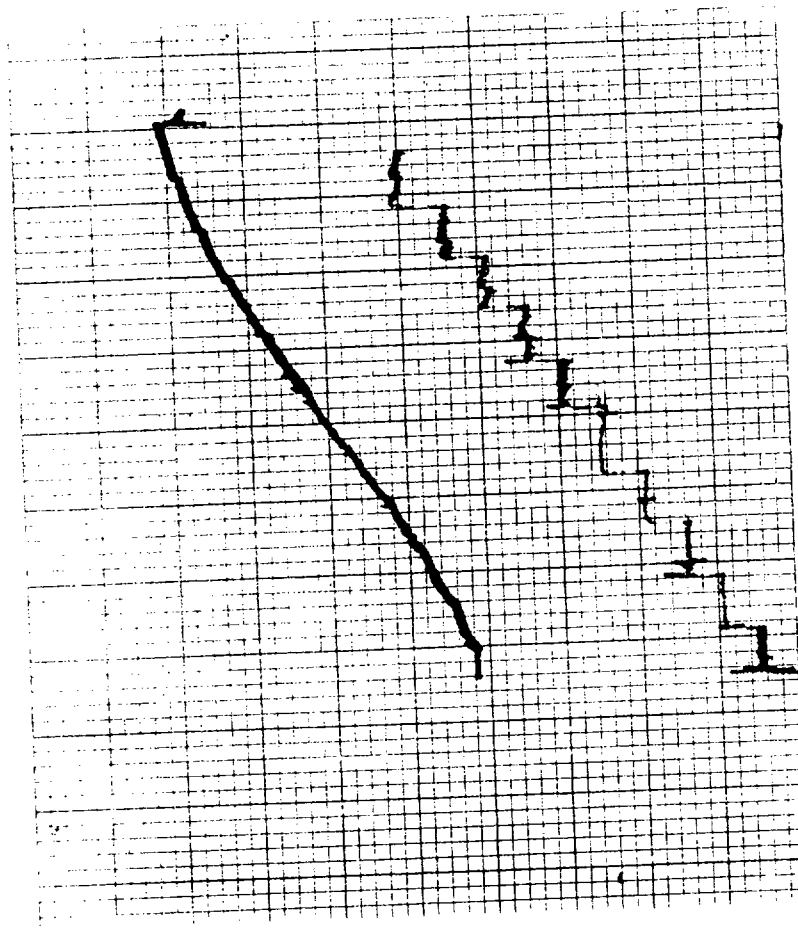
B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO
505 397-3914

MOBIL PRODUCING

NVAU #139

May 20, 1987



NO. 59018

B & D WELL TESTERS

Page 1

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Mobil Producing						Test Date 5-20-87		Unit
Total Depth 8850		Plug Back TD 8820		Elevation 4061		Lease NVAU		
Csg size 5 1/2		Wt 17#		Set at 8850		Perfs: From 8710 To 8753		
Tbg size 2 7/8		Wt		Set at 8606		Perfs: From To		
Producing thru						Packer set at 8620		
Well Information								
Time of Reading	Elap Time Hrs.	Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	Remarks	
	SI			1240				
1:50	Start	100		1260				
1:55		100		1310				
2:00		100		1320				
2:05		100	1.0	1350				
2:10		200		1410				
2:15		200		1460				
2:20		200	2.0	1470				
2:25		300		1540				
2:30		300		1580				
2:35		300	3.1	1620				
2:40		400		1700				
2:45		400		1750				
2:50		400	4.2	1810				
2:55		500		1890				
3:00		500		1950				
3:05		500	5.2	2000				
3:10		600		2100				
3:15		600		2170				
3:20		600	6.2	2220				
3:25		700		2330				
3:30		700		2400				
3:35		700	7.3	2460				
3:40		800		2540				
3:45		800		2630				
3:50		800	8.3	2690				
3:55		900		2790				
4:00		900		2860				
4:05		900	9.4	2910				

Step Rate Test

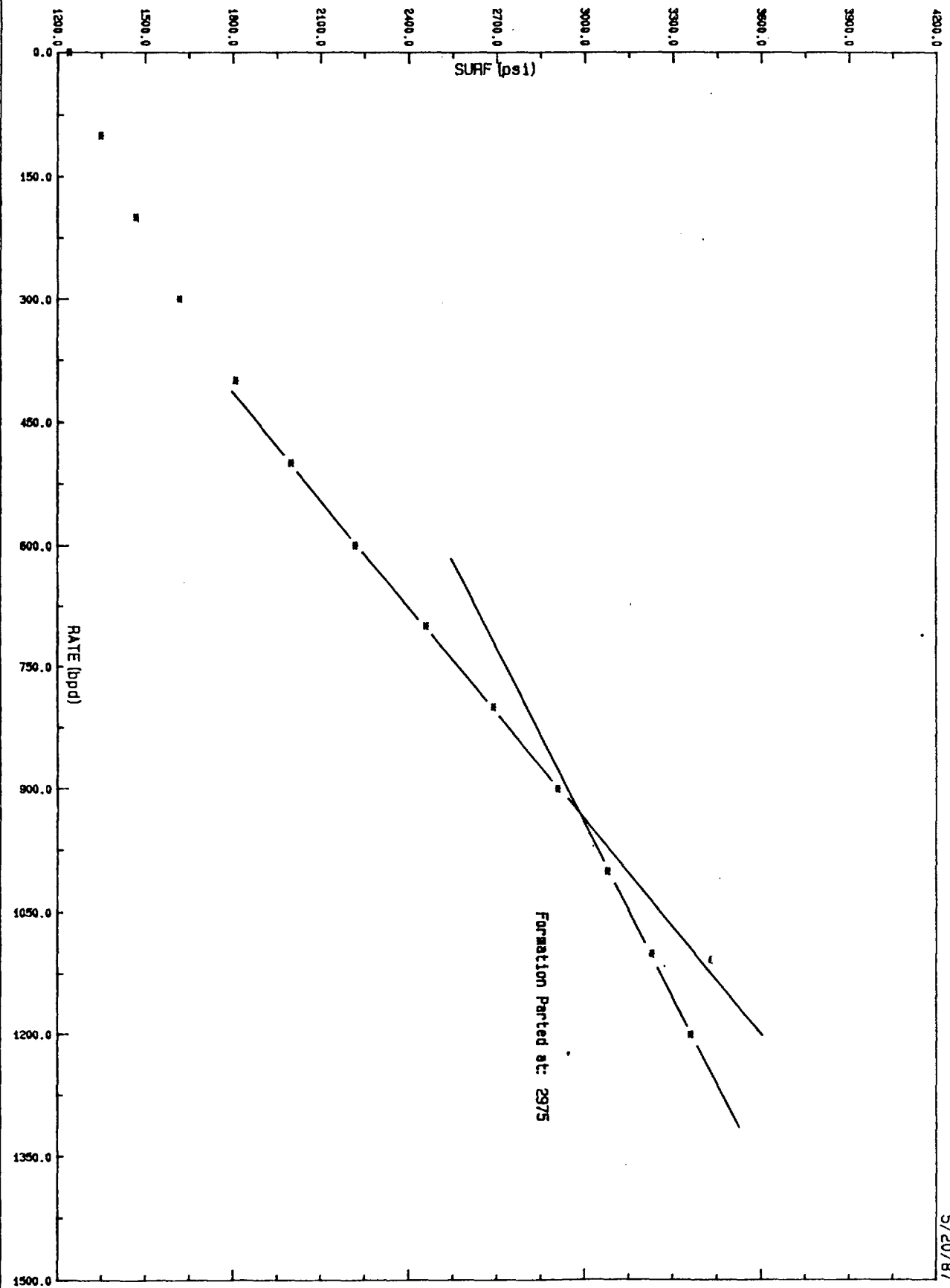
Hobbs, New Mexico 88240

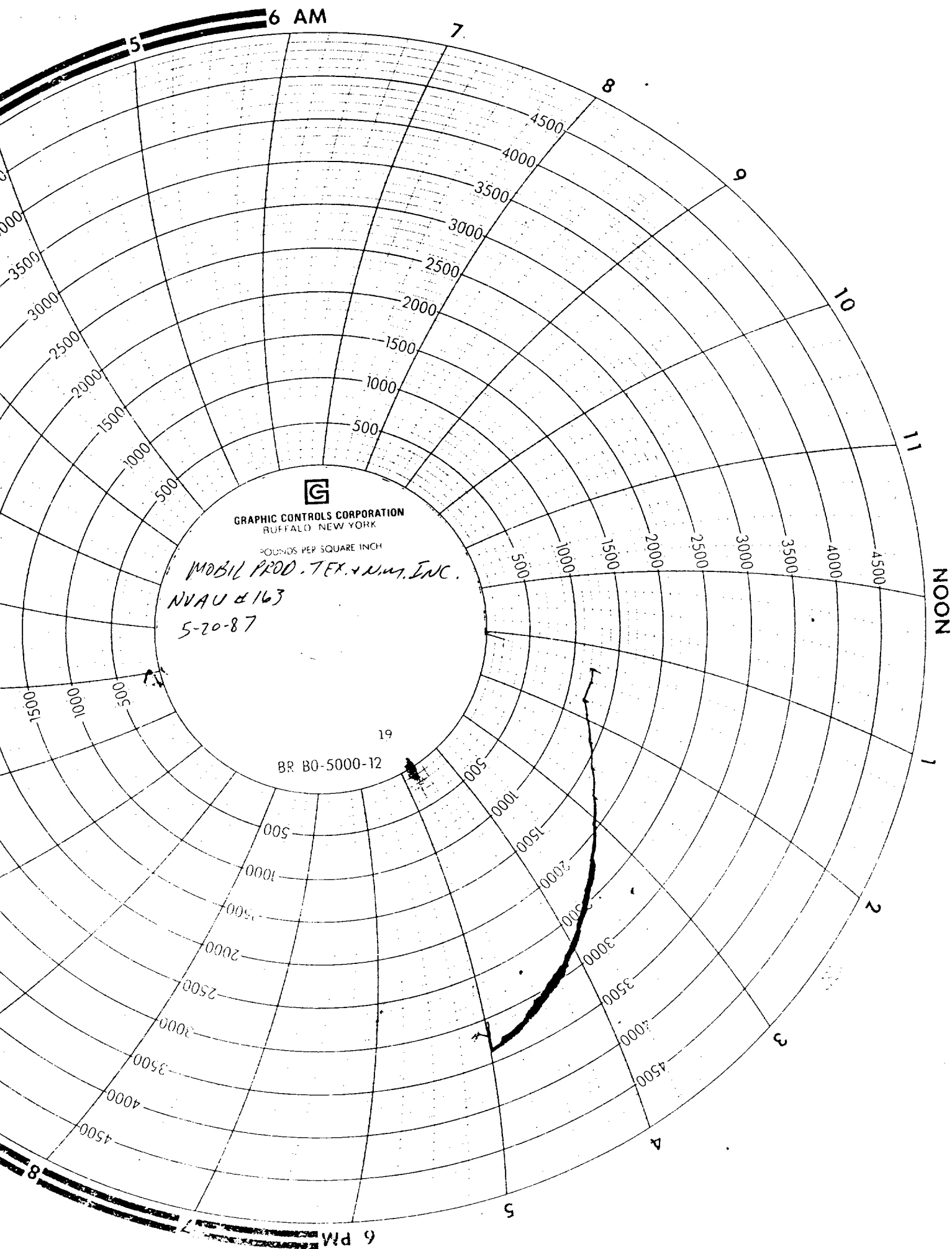
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B & D WELL TESTERS

Customer: MOBIL PRODUCING
Well: N.V.A.U. #163

5/20/87







STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

May 29, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	N. Vacuum Abo Ut. #112-D	25-17-34	
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

BAD TEST

Very truly yours

Jerry Sexton
Supervisor, District I

/bp



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

May 29, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	N. Vacuum Abo Ut #116-L	24-17-34
Operator	Lease & Well No.	Unit
		S-T-R

and my recommendations are as follows:

OK LS

Very truly yours

Jerry Sexton
Supervisor, District I

/bp



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

May 29, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	N. Vacuum Abo Ut #139-L	14-17-34
Operator	Lease & Well No.	Unit S-T-R

and my recommendations are as follows:

OK

Very truly yours

Jerry Sexton
Supervisor, District I

/bp



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE
May 29, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	N. Vacuum Abo Ut. #163-J	15-17-34
Operator	Lease & Well No.	Unit S-T-R

and my recommendations are as follows:

OK

Very truly yours

Jerry Sexton
Supervisor, District I

/bp