

Mobil Exploration & Producing U.S. Inc.

February 10, 1988

P.O. BOX 633
MIDLAND, TEXAS 79702

MIDLAND DIVISION

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

Attention: Mr. W. J. LeMay

INJECTION PRESSURE INCREASE REQUEST
NORTH VACUUM ABO FIELD
NORTH VACUUM ABO UNIT
WELL NO. 152, 163 & 170
LEA COUNTY, NEW MEXICO

Gentlemen:

Under the provisions of Order No. WFX-557 dated February 11, 1986; and Order No. PMX-140 dated March 7, 1986, permission was granted 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. A step-rate test for these wells has been completed which shows that higher pressure will not result in migration of the injected fluid from the Abo formation. Permission is requested to increase the injection pressure as follows:

	<u>INJECTION INTERVALS</u>	<u>PRESENT SURFACE INJECTION PRESSURE LIMIT</u>	<u>REQUESTED SURFACE INJECTION PRESSURE LIMIT</u>
WELL NO. 152 UNIT D, SEC. 13 T-17-S, R-34-E Order No. PMX-140	8535-8595'	1707 psig	2450 psig
WELL No. 163 UNIT J, SEC. 15 T-17-S, R-34-E Order No. WFX-557	8704-8756'	2925 psig	3670 psig

State of New Mexico
North Vacuum Abo Unit

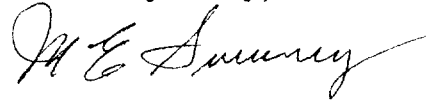
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February 10, 1988

	<u>INJECTION INTERVALS</u>	<u>PRESENT SURFACE INJECTION PRESSURE LIMIT</u>	<u>REQUESTED SURFACE INJECTION PRESSURE LIMIT</u>
WELL NO. 170 UNIT D, SEC. 14 T-17-S, R-34-E Order No. PMX-140	8579-8634'	3225 psig	3970 psig

Enclosed are copies of the Step-rate test.

Yours very truly,



M. E. Sweeney
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.
as Agent for
Mobil Producing Texas & New Mexico, Inc.

CCSmith/jlt

Attachments

cc: District Director OCD - Hobbs

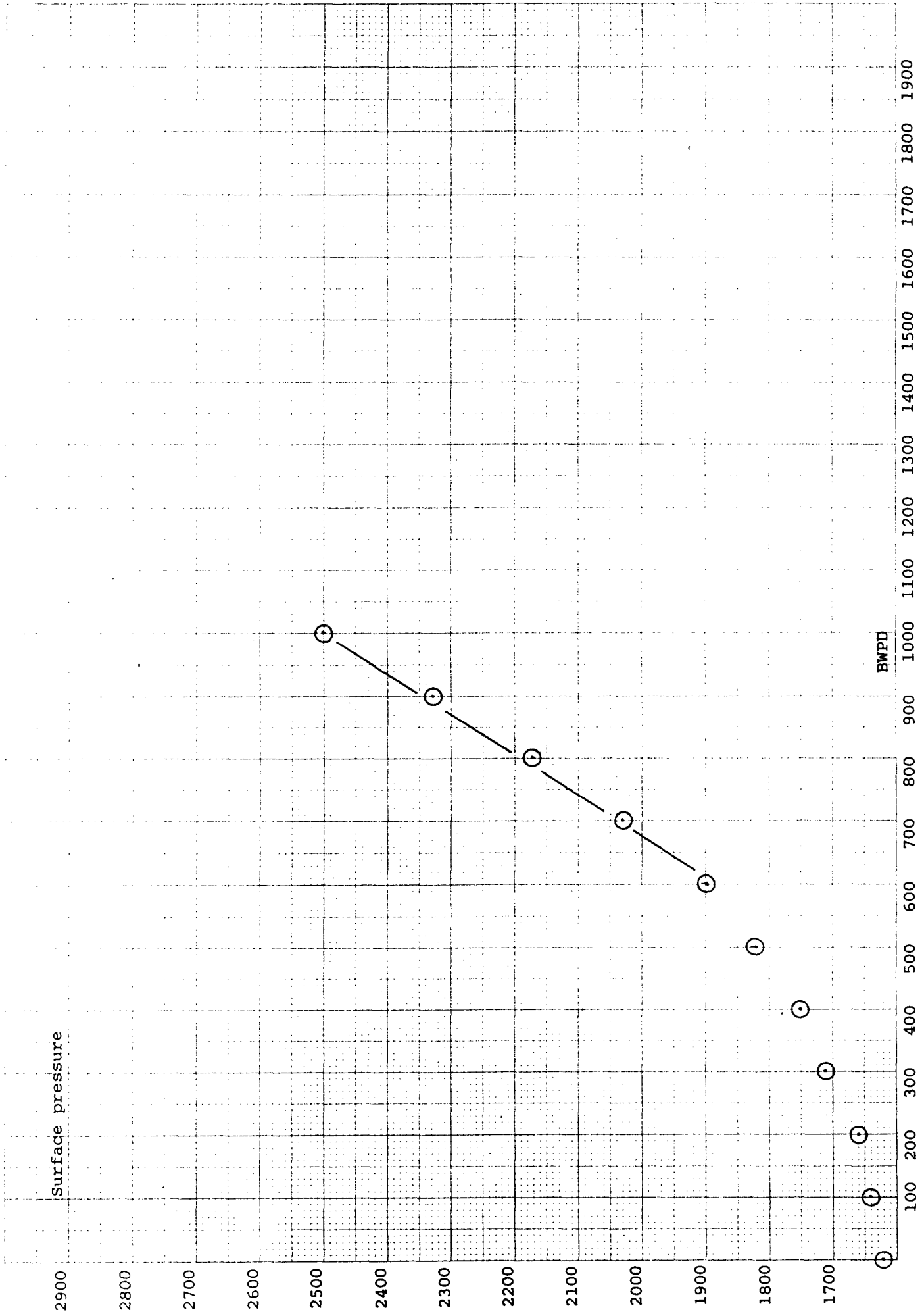
B & D WELL TESTERS

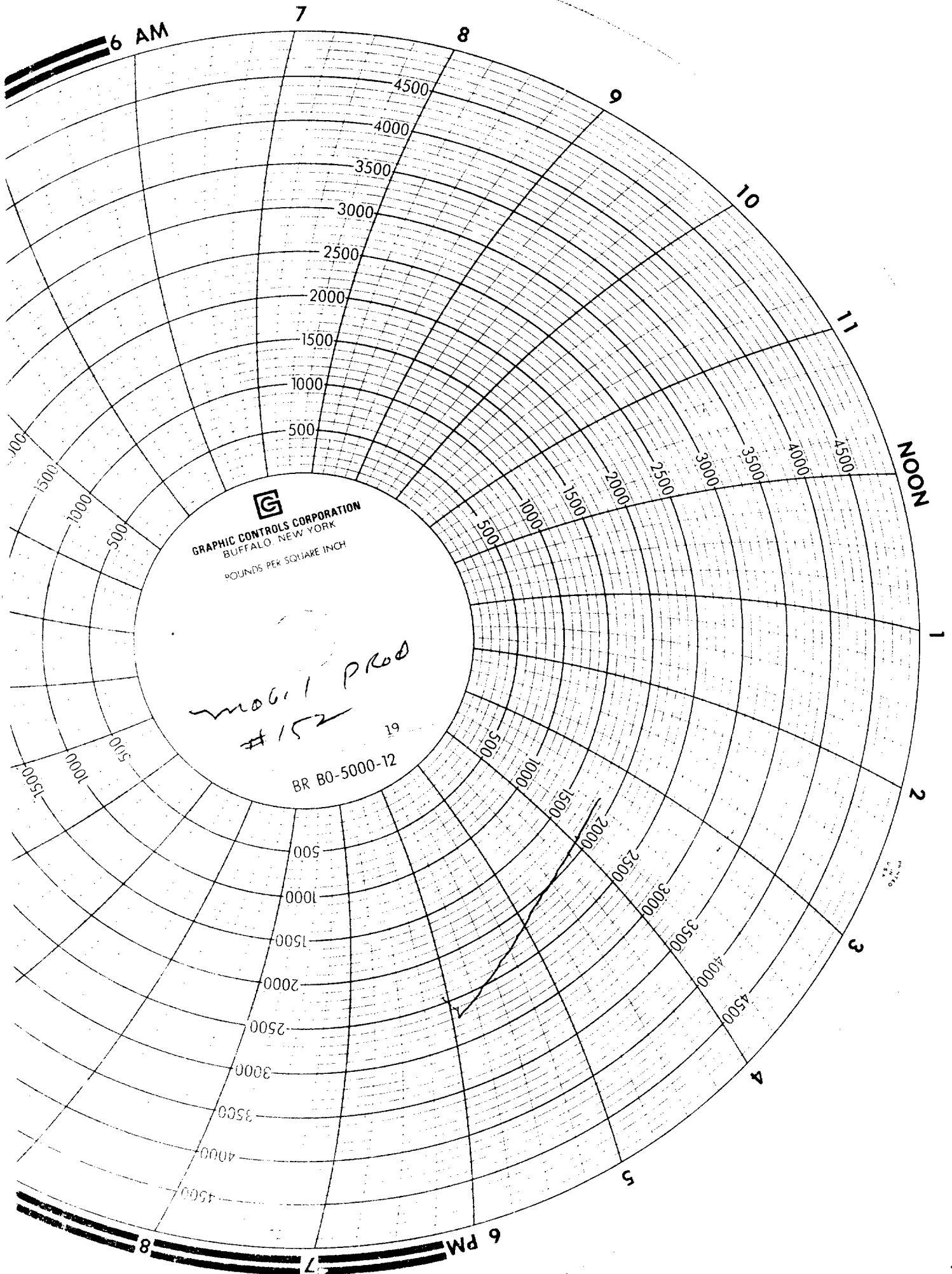
Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Mobil Producing Texas & New Mexico						Test Date 1-27-88		Unit
Total Depth						Plug Back TD		Elevation
Csg size						Wt	d	Set at
Tbg size						Wt	d	Set at
Producing thru						Packer set at		Perfs: From To
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		
3:25				1620			Shut in	
3:30		100		1620			Start	
3:35		100		1640				
3:40		100		1640				
3:45	:15	100	1.1	1640				
3:50		200		1650				
3:55		200		1660				
4:00	:30	200	2.1	1660				
4:05		300		1680				
4:10		300		1700				
4:15	:45	300	3.0	1710				
4:20		400		1730				
4:25		400		1740				
4:30	1:00	400	4.1	1750				
4:35		500		1780				
4:40		500		1800				
4:45	1:15	500	5.2	1820				
4:50		600		1850				
4:55		600		1870				
5:00	1:30	600	6.2	1900				
5:05		700		1960				
5:10		700		2000				
5:15	1:45	700	7.3	2030				
5:20		800		2100				
5:25		800		2140				
5:30	2:00	800	8.3	2170				
5:35		900		2240				
5:40		900		2280				
5:45	2:15	900	9.4	2330				





STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 163
 LOCATION: J-15-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8704'-8756'
 TOTAL: 8850'
 PLUG BACK TD: 8820'
 PACKER SET AT: 8653'

TIME	SURFACE PRESSURE	RATE (BWPD)
9:30	2958	SI
9:31	2967	100
9:32	2972	100
9:33	2977	100
9:34	2982	100
9:35	2986	100
9:36	2990	100
9:37	2994	100
9:38	2997	100
9:39	3000	100
9:40	3004	100
9:41	3007	100
9:42	3009	100
9:43	3012	100
9:44	3015	100
9:45	3017	100
9:46	3023	200
9:47	3034	200
9:48	3042	200
9:49	3049	200
9:50	3055	200
9:51	3061	200
9:52	3067	200
9:53	3073	200
9:54	3078	200
9:55	3083	200
9:56	3088	200
9:57	3093	200
9:58	3097	200
9:59	3102	200
10:00	3106	200
10:01	3114	300
10:02	3129	300
10:03	3137	300
10:04	3146	300
10:05	3154	300
10:06	3160	300
10:07	3169	300
10:08	3175	300
10:09	3183	300
10:10	3189	300
10:11	3195	300
10:12	3201	300

STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 163
 LOCATION: J-15-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8704'-8756'
 TOTAL: 8850'
 PLUG BACK TD: 8820'
 PACKER SET AT: 8653'

TIME	SURFACE PRESSURE	RATE (BWPD)

10:13	3207	300
10:14	3215	300
10:15	3219	300
10:16	3239	400
10:17	3247	400
10:18	3257	400
10:19	3265	400
10:20	3275	400
10:21	3282	400
10:22	3290	400
10:23	3297	400
10:24	3304	400
10:25	3311	400
10:26	3318	400
10:27	3324	400
10:28	3330	400
10:29	3337	400
10:30	3343	400
10:31	3367	500
10:32	3369	500
10:33	3384	500
10:34	3390	500
10:35	3396	500
10:36	3401	500
10:37	3411	500
10:38	3417	500
10:39	3425	500
10:40	3431	500
10:41	3436	500
10:42	3444	500
10:43	3450	500
10:44	3455	500
10:45	3463	500
10:46	3490	600
10:47	3493	600
10:48	3499	600
10:49	3507	600
10:50	3514	600
10:51	3521	600
10:52	3528	600
10:53	3539	600
10:54	3543	600
10:55	3550	600

STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 163
 LOCATION: J-15-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8704'-8756'
 TOTAL: 8850'
 PLUG BACK TD: 8820'
 PACKER SET AT: 8653'

TIME	SURFACE PRESSURE	RATE (BWPD)

10:56	3556	600
10:57	3561	600
10:58	3568	600
10:59	3571	600
11:00	3579	600
11:01	3610	700
11:02	3616	700
11:03	3621	700
11:04	3627	700
11:05	3635	700
11:06	3640	700
11:07	3647	700
11:08	3654	700
11:09	3659	700
11:10	3663	700
11:11	3669	700
11:12	3675	700
11:13	3679	700
11:14	3683	700
11:15	3687	700
11:16	3717	800
11:17	3722	800
11:18	3727	800
11:19	3736	800
11:20	3740	800
11:21	3744	800
11:22	3751	800
11:23	3756	800
11:24	3760	800
11:25	3763	800
11:26	3766	800
11:27	3773	800
11:28	3777	800
11:29	3780	800
11:30	3783	800
11:31	3814	900
11:32	3815	900
11:33	3820	900
11:34	3826	900
11:35	3830	900
11:36	3833	900
11:37	3837	900
11:38	3843	900

STEP RATE TEST

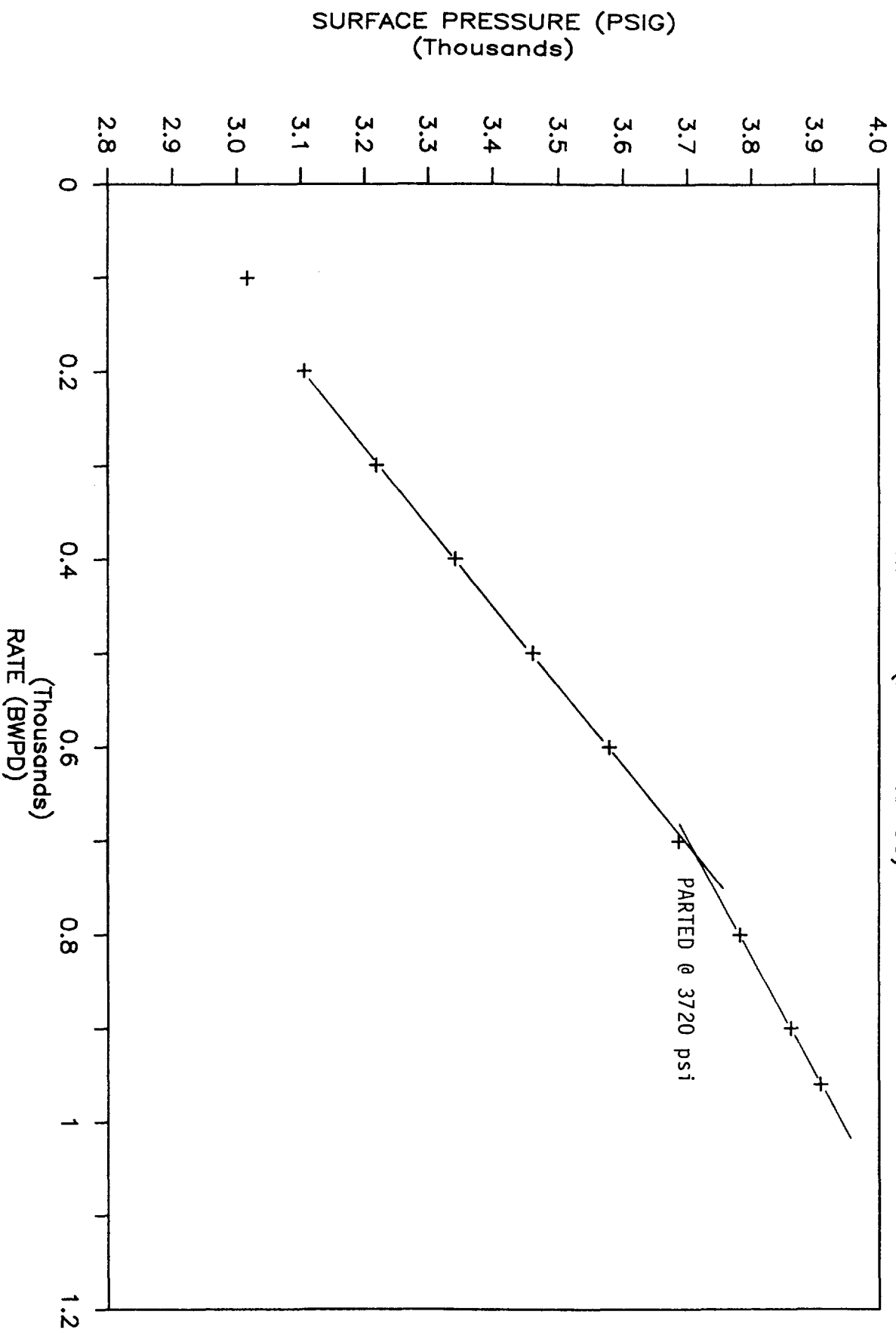
COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 163
 LOCATION: J-15-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8704'-8756'
 TOTAL: 8850'
 PLUG BACK TD: 8820'
 PACKER SET AT: 8653'

TIME	SURFACE PRESSURE	RATE (BWPD)

11:39	3846	900
11:40	3850	900
11:41	3852	900
11:42	3855	900
11:43	3861	900
11:44	3862	900
11:45	3863	900
11:46	3879	960
11:47	3882	960
11:48	3885	960
11:49	3887	960
11:50	3890	960
11:51	3892	960
11:52	3895	960
11:53	3898	960
11:54	3901	960
11:55	3902	960
11:56	3904	960
11:57	3905	960
11:58	3906	960
11:59	3907	960
12:00	3909	960
12:01	3776	SI
12:02	3789	SI
12:03	3783	SI
12:04	3777	SI
12:05	3771	SI

STEP RATE TEST

NVAU 163 (RUN 1-28-88)



STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 170
 LOCATION: D-14-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8579'-8634'
 TOTAL: 8800'
 PLUG BACK TD: 8694'
 PACKER SET AT: 8522'

TIME	SURFACE PRESSURE	RATE (BWPD)

12:30	3067	SI
12:31	3073	100
12:32	3080	100
12:33	3088	100
12:34	3094	100
12:35	3099	100
12:36	3103	100
12:37	3108	100
12:38	3108	100
12:39	3111	100
12:40	3116	100
12:41	3119	100
12:42	3121	100
12:43	3124	100
12:44	3127	100
12:45	3129	100
12:46	3131	200
12:47	3143	200
12:48	3154	200
12:49	3162	200
12:50	3169	200
12:51	3175	200
12:52	3180	200
12:53	3185	200
12:54	3190	200
12:55	3194	200
12:56	3199	200
12:57	3203	200
12:58	3207	200
12:59	3211	200
1:00	3215	200
1:01	3219	300
1:02	3232	300
1:03	3245	300
1:04	3256	300
1:05	3265	300
1:06	3273	300
1:07	3281	300
1:08	3287	300
1:09	3294	300
1:10	3300	300
1:11	3307	300
1:12	3312	300

STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 170
 LOCATION: D-14-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8579'-8634'
 TOTAL: 8800'
 PLUG BACK TD: 8694'
 PACKER SET AT: 8522'

TIME	SURFACE PRESSURE	RATE (BWPD)

1:13	3318	300
1:14	3323	300
1:15	3328	300
1:16	3333	400
1:17	3357	400
1:18	3369	400
1:19	3379	400
1:20	3388	400
1:21	3397	400
1:22	3405	400
1:23	3414	400
1:24	3423	400
1:25	3430	400
1:26	3437	400
1:27	3446	400
1:28	3450	400
1:29	3457	400
1:30	3464	400
1:31	3489	500
1:32	3496	500
1:33	3508	500
1:34	3518	500
1:35	3526	500
1:36	3535	500
1:37	3544	500
1:38	3554	500
1:39	3563	500
1:40	3569	500
1:41	3576	500
1:42	3582	500
1:43	3595	500
1:44	3599	500
1:45	3607	500
1:46	3628	600
1:47	3641	600
1:48	3654	600
1:49	3664	600
1:50	3673	600
1:51	3682	600
1:52	3689	600
1:53	3697	600
1:54	3707	600
1:55	3716	600

STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 170
 LOCATION: D-14-T17S-R34E, LEA COUNTY, NEW MEXICO
 TEST DATE: 1-28-88
 PERFORATIONS: 8579'-8634'
 TOTAL: 8800'
 PLUG BACK TD: 8694'
 PACKER SET AT: 8522'

TIME	SURFACE PRESSURE	RATE (BWPD)

1:56	3723	600
1:57	3730	600
1:58	3737	600
1:59	3747	600
2:00	3754	600
2:01	3778	700
2:02	3790	700
2:03	3803	700
2:04	3813	700
2:05	3822	700
2:06	3829	700
2:07	3835	700
2:08	3843	700
2:09	3853	700
2:10	3860	700
2:11	3867	700
2:12	3874	700
2:13	3879	700
2:14	3885	700
2:15	3897	700
2:16	3921	790
2:17	3930	790
2:18	3940	790
2:19	3949	790
2:20	3958	790
2:21	3966	790
2:22	3972	790
2:23	3979	790
2:24	3987	790
2:25	3993	790
2:26	4000	790
2:27	4006	790
2:28	4011	790
2:29	4015	790
2:30	4020	790
2:31	3916	SI
2:32	3915	SI
2:33	3885	SI
2:34	3867	SI
2:35	3849	SI

STEP RATE TEST

NVAU 170 (RUN 1-28-88)

