



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 9, 1994

CF 9072
R-8397
8397-A

Mobil Exploration & Producing U.S., Inc.
P.O. Box 663
Midland, Texas 79702-0633

Attn: Ms. Kaye Pollock-Lyon

**RE: Injection Pressure Increase State "N" Lease Waterflood Project
Lea County, New Mexico**

Dear Ms. Pollock-Lyon:

Reference is made to your request dated October 24, 1994, to increase the surface injection pressure on one well. This request is based on a step rate tests conducted on September 30, 1994. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

Well and Location	Maximum Injection Surface Pressure
State "N" Well No.2 735' FNL & 840' FWL Unit D, Section 10, Township 17 South, Range 34 East	4669 PSIG
This well located in Lea County, New Mexico.	

Injection Pressure Increase
Mobil Exploration & Producing U.S., Inc.
November 9, 1994
Page 2

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. LeMay". The signature is fluid and cursive, with a long vertical stroke extending downwards from the end of the name.

William J. LeMay
Director

WJL/BES

cc: Oil Conservation Division - Hobbs
File: Case File No.9072

Mobil Exploration & Producing U.S. Inc.

OIL CONSERVATION
RECEIVED

1994 OCT 27 AM 8 52

P.O. BOX 633
MIDLAND, TEXAS 79702-0633

MIDLAND SOUTH ASSET TEAM
ENVIRONMENTAL, REGULATORY &
LOSS PREVENTION

FACSIMILE (915) 688-1514

October 24, 1994

State of New Mexico
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

ATTN: William LeMay

**REF: Injection Pressure Increase Request
State N Lease
Vacuum, Abo North Field
Lea County, New Mexico**

Dear Mr. LeMay:

Mobil Exploration & Producing U.S. Inc. as agent for Mobil Producing TX & NM Inc., is requesting to increase injection pressures on the wells listed below. The purpose of these tests is to determine the surface injection pressure at which the formation will begin to fracture. Mobil then requests an increase in surface pressure to within 50 PSIG of the parting pressure. In some cases, the fracturing pressure was not achieved, so the requested pressure limit will be within 50 PSIG of the final pressure during the test. In waterflood operations such as the Vacuum Abo Field, this increase allows additional water to be injected that benefits oil recovery.

<u>Well</u>	<u>Injection Intervals</u>	<u>Present Surface Injection Pressure Limit</u>	<u>Requested Surface Injection Pressure Limit</u>
State N #2 Unit D, Section 10, 17-S, 34-E	8714-8783	4230 psig	4680 psig



**Environmental
Awareness**

Injection Pressure Increase Request
State N Lease
NVA Field
Page 2
October 24, 1994

Attached please find step rate tests for each of the above mentioned well. If there is any question, please contact me at 915-688-2584.

Sincerely,

A handwritten signature in cursive script that reads "Kaye Pollock-Lyon".

Kaye Pollock-Lyon
Environmental & Regulatory Technician

Mobil Exploration & Producing US Inc.
as agent for
Mobil Producing TX & NM Inc.

KPL:s

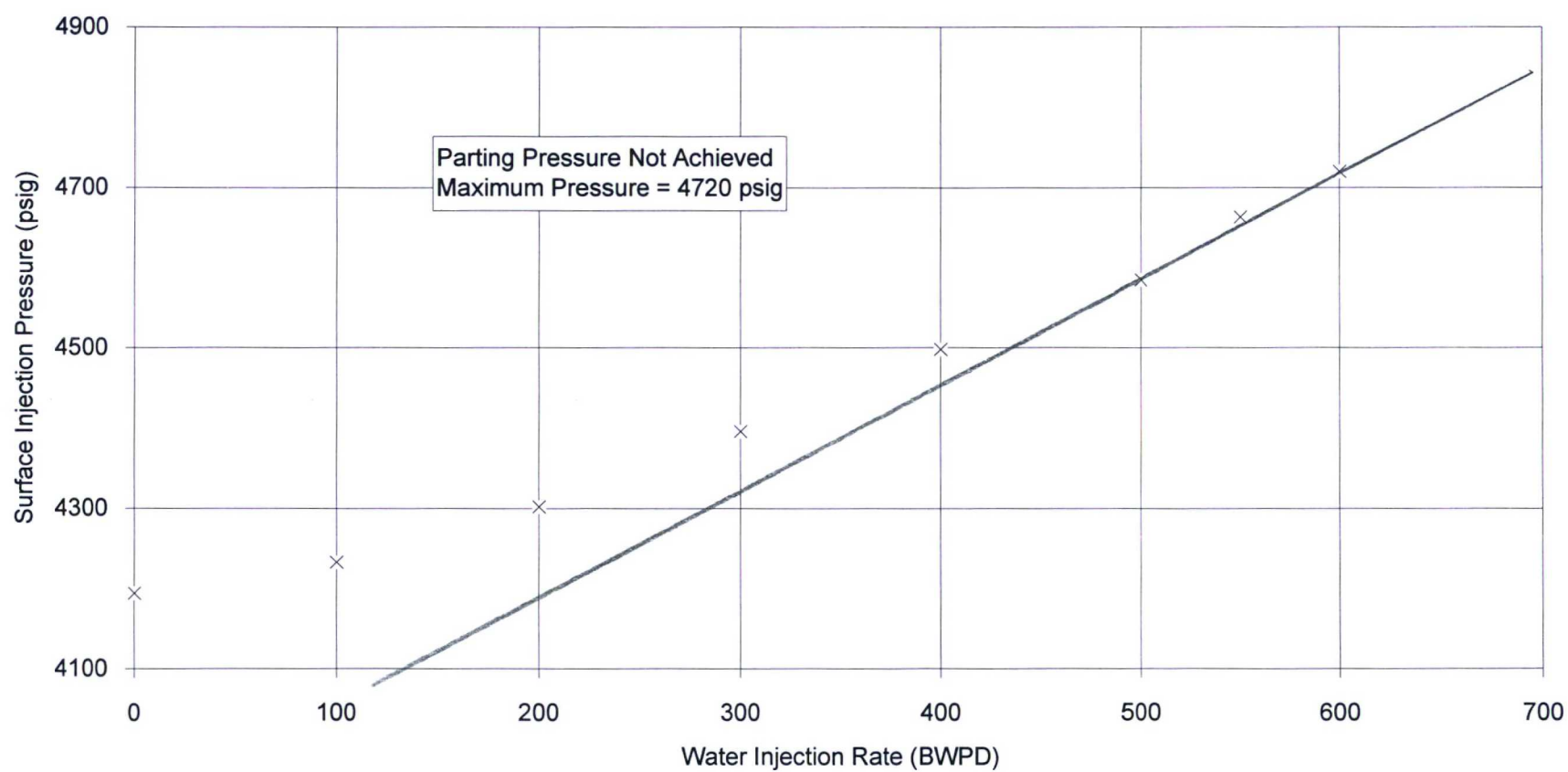
Attachments

cc: District Office - Hobbs
Central Files
ER Files
Res. Engr. -Sal Gutierrez
Field Office

State N #2 Step Rate Test

North Vacuum Abo Field

Lea County, New Mexico



Date of Test: 9-30-94

Step Rate Test

Company: Mobil Exploration & Producing U.S., Inc.

Lease: State N

Well No: 2

Location: Unit D 10-T17S-R34E

Perforations: 8714'-8783'

Total Depth: 8970'

Plug Back TD: 8909'

Packer Set At: 8660'

Technician: Dale Shreffler

Engineer: Chad Jones

<u>Record</u>	<u>Date</u>	<u>Time</u>	<u>Surface Pressure</u>	<u>Injection Rate (BWPD)</u>
1	9/30/94 Friday	8:00:20	13	0
2		8:01:20	13	0
3		8:02:20	13	0
4		8:03:20	13	0
5		8:04:20	13	0
6		8:05:20	13	0
7		8:06:20	13	0
8		8:07:20	13	0
9		8:08:20	13	0
10		8:09:20	13	0
11		8:10:20	13	0
12		8:11:20	13	0
13		8:12:20	13	0
14		8:13:20	13	0
15		8:14:20	13	0
16		8:15:20	13	0
17		8:16:20	26	0
18		8:17:20	4231	0
19		8:18:20	4257	0
20		8:19:20	4258	0
21		8:20:20	4258	100
22		8:21:20	4258	100
23		8:22:20	4258	100
24		8:23:20	4259	100
25		8:24:20	4258	100
26		8:25:20	4259	100
27		8:26:20	4259	100
28		8:27:20	4237	100
29		8:28:20	4227	100
30		8:29:20	4229	100
31		8:30:20	4231	100
32		8:31:20	4238	100
33		8:32:20	4243	100
34		8:33:20	4246	100
35		8:34:20	4249	100
36		8:35:20	4250	200
37		8:36:20	4252	200
38		8:37:20	4240	200
39		8:38:20	4258	200
40		8:39:20	4269	200
41		8:40:20	4273	200
42		8:41:20	4279	200
43		8:42:20	4285	200
44		8:43:20	4290	200
45		8:44:20	4293	200
46		8:45:20	4300	200
47		8:46:20	4296	200
48		8:47:20	4318	200
49		8:48:20	4323	200

50		8:49:20	4336	200
51		8:50:20	4341	300
52		8:51:20	4345	300
53		8:52:20	4356	300
54		8:53:20	4363	300
55		8:54:20	4367	300
56	9/30/94	8:55:20	4371	300
57	Friday	8:56:20	4379	300
58		8:57:20	4380	300
59		8:58:20	4390	300
60		8:59:20	4393	300
61		9:00:20	4393	300
62		9:01:20	4406	300
63		9:02:20	4417	300
64		9:03:20	4426	300
65		9:04:20	4430	300
66		9:05:20	4438	400
67		9:06:20	4445	400
68		9:07:20	4453	400
69		9:08:20	4456	400
70		9:09:20	4466	400
71		9:10:20	4473	400
72		9:11:20	4472	400
73		9:12:20	4479	400
74		9:13:20	4488	400
75		9:14:20	4494	400
76		9:15:20	4495	400
77		9:16:20	4508	400
78		9:17:20	4521	400
79		9:18:20	4524	400
80		9:19:20	4530	400
81		9:20:20	4535	500
82		9:21:20	4544	500
83		9:22:20	4549	500
84		9:23:20	4555	500
85		9:24:20	4557	500
86		9:25:20	4562	500
87		9:26:20	4566	500
88		9:27:20	4571	500
89		9:28:20	4574	500
90		9:29:20	4583	500
91		9:30:20	4584	500
92		9:31:20	4599	500
93		9:32:20	4602	500
94		9:33:20	4606	500
95		9:34:20	4611	500
96		9:35:20	4615	550
97		9:36:20	4621	550
98		9:37:20	4626	550
99		9:38:20	4632	550
100		9:39:20	4635	550
101		9:40:20	4638	550
102		9:41:20	4643	550
103		9:42:20	4645	550
104		9:43:20	4652	550
105		9:44:20	4652	550
106		9:45:20	4657	550
107		9:46:20	4659	550
108		9:47:20	4671	550
109		9:48:20	4678	550
110		9:49:20	4677	550

111	9/30/94	9:50:20	4686	600
112	Friday	9:51:20	4689	600
113		9:52:20	4690	600
114		9:53:20	4696	600
115		9:54:20	4701	600
116		9:55:20	4699	600
117		9:56:20	4706	600
118		9:57:20	4709	600
119		9:58:20	4711	600
120		9:59:20	4714	600
121		10:00:20	4719	600
122		10:01:20	4618	SI
123		10:02:20	4673	SI
124		10:03:20	4668	SI
125		10:04:20	4661	SI
126		10:05:20	4652	SI
127		10:06:20	4646	SI
128		10:07:20	4639	SI
129		10:08:20	4633	SI
130		10:09:20	4628	SI
131		10:10:20	4622	SI
132		10:11:20	4617	SI
133		10:12:20	4612	SI
134		10:13:20	4608	SI
135		10:14:20	4604	SI
136		10:15:20	4599	SI
137		10:16:20	4595	SI
138		10:17:20	4592	SI
139		10:18:20	4588	SI
140		10:19:20	4584	SI
141		10:20:20	4580	SI
142		10:21:20	4578	SI
143		10:22:20	4574	SI
144		10:23:20	4571	SI
145		10:24:20	4568	SI
146		10:25:20	4565	SI
147		10:26:20	4562	SI
148		10:27:20	4559	SI
End Test				