STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

July 22, 1994

WFX-560 PDEV0020600560

The Wiser Oil Company P.O. Box 250 Hobbs, NM 88241-0250

Attention: Perry L. Hughes

RE: Injection Pressure Increase Maljamar Grayburg Unit

Waterflood Project, Lea County, New Mexico

Dear Mr. Hughes:

Reference is made to your request dated June 13, 1994 to increase the surface injection pressure on six wells within the Maljamar Grayburg Unit Waterflood Project. This request is based on step rate tests conducted during April and May, 1994. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

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

Well and Location	Maximum Injection Surface Pressure
Maljamar Grayburg Unit Well No. 6 Unit I, Section 3, Township 17 South, Range 32 East	1594 PSIG
Maljamar Grayburg Unit Well No. 11 Unit N, Section 3, Township 17 South, Range 32 East	1733 PSIG
Maljamar Grayburg Unit Well No. 12 Unit O, Section 3, Township 17 South, Range 32 East	1713 PSIG
Maljamar Grayburg Unit Well No. 51 Unit C, Section 10, Township 17 South, Range 32 East	1736 PSIG

Well and Location	Maximum Injection Surface Pressure								
Maljamar Grayburg Unit Well No. 150 Unit J, Section 3, Township 17 South, Range 32 East	1789 PSIG								
Maljamar Grayburg Unit Well No. 151 Unit B, Section 10, Township 17 South, Range 32 East	1713 PSIG								
All wells located in Lea County, New Mexico.									

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,

William J. LeMay

Director

WJL/DRC/amg

cc:

Oil Conservation Division - Hobbs

File: WFX-560

R. Brown

D. Catanach

NO WAITING	,			
COMPANY: _	The L	Siser Dil	Company	
ADDRESS: _	ρ.	1. Box c	<i>950</i>	
CITY, STATE	i, zig:	Hobbs,	New Mexico	88241-0250
ATTENTION:	Herry	h. Hughes		
	V	0		<u> </u>

Re: Injection Pressure Increase

| National Charles | Charles |
| Charles | County, New Mexico

Dear Sir:

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

WELL & LOCATION	MAXIMUM SURFACE INJECTION PRESSURE
Maljamar Grayburg Unit No. 6 Unit I, Section 3, T-17S, R-32E;	1594 PSIG
Maljamar Grayburg Unit No. 11 Unit N, Section 3, T-17S, R-32E;	1733 PSIG
Maljamar Grayburg Unit No. 12 Unit O, Section 3, T-17S, R-32E;	1713 PSIG
Maljamar Grayburg Unit No. 51 Unit C, Section 10, T-17S, R-32E;	1736 PSIG
Maljamar Grayburg Unit No. 150 Unit J, Section 3, T-17S, R-32E;	1789 PSIG
Maljamar Grayburg Unit No. 151 Unit B, Section 10, T-17S, R-32E;	1713 PSIG

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.

xc: T. CALLEGOS

D. CATANACH

FILE-64X-560

OCD- Hobs

QUALITY PRODUCTION CORPOVISION

300 West Texas, Suite 408 Midland, Texas 79701 (915) 688-5155 FAX (915) 688-5137 207 W. McKay Carlsbad, New Mexico 88220 (505) 885-5433 FAX (505) 885-4989 Post Office Box 250 Hopbs New Mexico 88241-0250 (505) 397-2727 FAX (505) 393-4111

June 13, 1994

Oil Conservation Division PO Box 2088 Santa Fe, NM 87504-2088

Re:

The Wiser Oil Company

Division Order No. WFX-650

Maljamar Grayburg Unit Waterflood Project

Gentlemen:

Pursuant to the subject Order which approved six injection wells for the Maljamar Grayburg Unit Waterflood Project, please find enclosed the results of step-rate tests conducted on four of the wells. Under Rule 704, The Wiser Oil Company requests that the maximum allowable injection pressure be increased to 50 psi below the fracture pressure determined by step-rate tests. Enclosed is all data gathered from the tests and following are the results of the step-rate tests.

Well No.	Fracture Pressure - (psi)	Fracture Pressure - 50 psi
6	1644	1594
11	1783	1733
51	1786	1736
150	1839	1789
•		1.5
Average	1763	1713

The Wiser Oil Company requests that the average fracture pressure minus 50 psi be assigned to Maljamar Grayburg Unit Nos. 12 and 151. Therefore, the maximum allowable surface injection pressure would be 1713 psi.

Please contact me in Carlsbad at 885-5433 if additional information is required.

Sincerely,

Perry 2. Hughes (

Agent for

The Wiser Oil Company

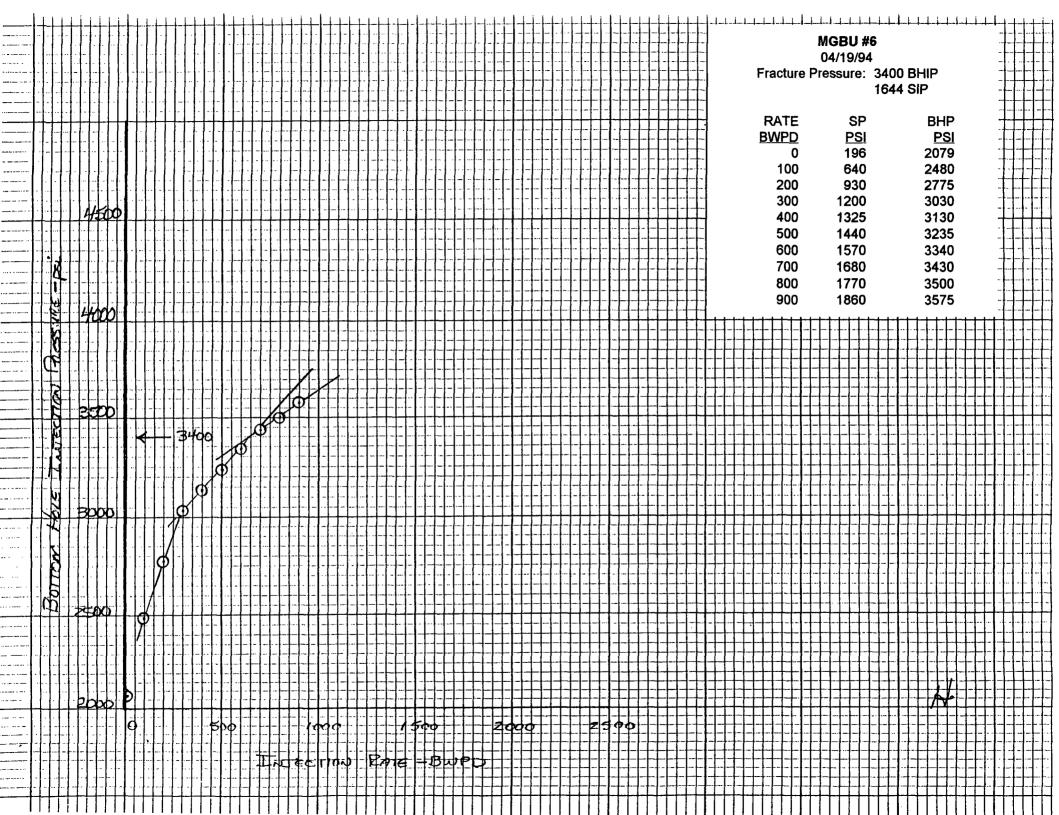
PLH/mp

Enclosures

cc:

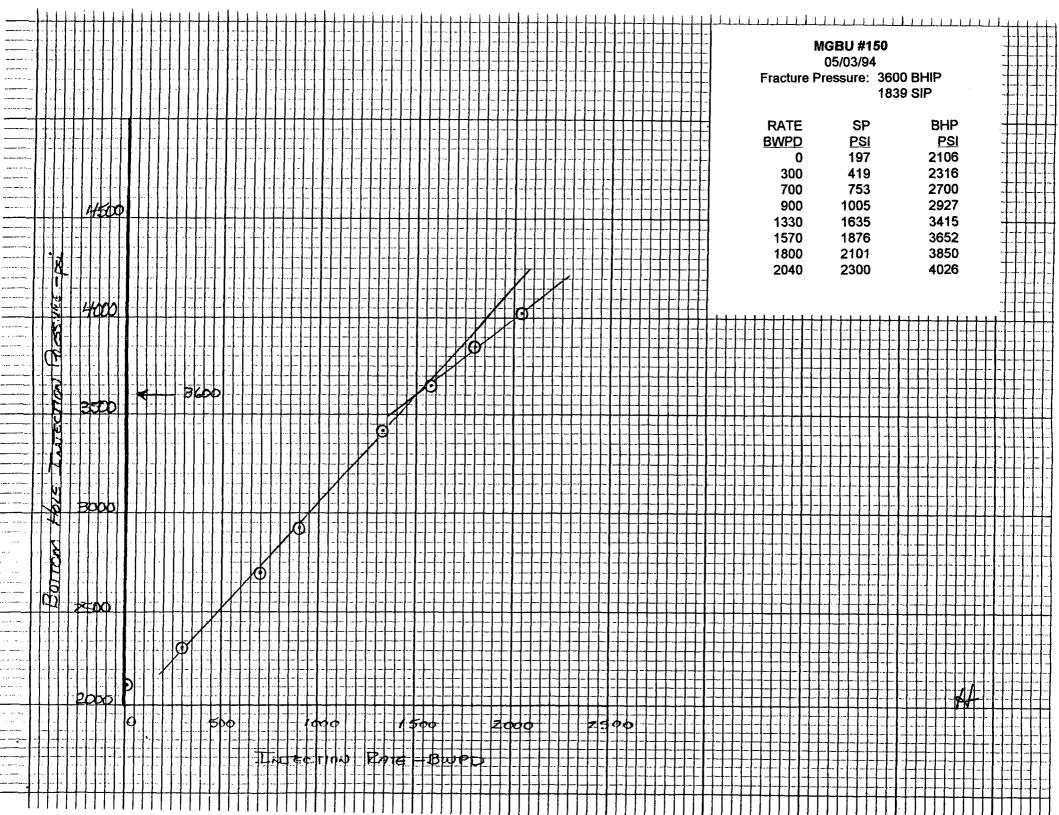
Mr. Jerry Sexton

Hobbs OCD



Barre		
30¢	40 23	45
A		Ó
9		
3	36	
	20	
50		
Φ.		
	9	
)	
-/-	Ø	
1 00		
7		
3		
7		
2.4		
+		
7		
0		
0		
		11
		[]
		Fr
		ract
		ure TE
		N
		3U /02/ sure
		#1 /94 e: PSI 00 53 47 75
		1 362
		20 i
		SIP
		IP
*		IP SI 90 11 05 03
		1.1

MGBU #51 04/18/94 Fracture Pressure: 3420 BHIP 1766 SIP RATE SP BHP RATE SP BHP 185 691 2419 185 905 2626 225 1137 2851 385 1242 2956 485 1370 3063 485 1370 3063 485 1371 3063 485 1371 3063 585 1611 3266 585 1611 3266 585 1611 3266 785 1723 3374 885 1800 347		 	- -	-	+	- -	 - -	- -	-		- -	+-				-	-+-	-			 -		 -		- -	∳- -∤							- -		-			-		1-1				++		-	i	ιİ	U	l _ i _			1_4		1_1	_1_		<u>_</u>	-1	1_		<u>i_</u> i		11		4-1		+-	tt	_	
Fracture Pressure: 3420 BHIP 1786 SIP RATE SP BHP BWPD PSI PSI 85 691 2419 185 905 2626 285 1137 2851 385 1242 2956 485 1370 3063 585 1491 3151 685 1611 3266 765 1723 3374 885 1860 3474 885 1860 3474 885 1860 3474 885 1942 3562 1085 2027 3650					11								-								-		-	-				-			- -	_			·	- -			-															MC	ЗB	ΙU	#5	51									-	-			-
RATE SP BHP BWPD PSI PSI 85 691 2419 185 905 2626 2285 1137 2851 335 1242 2956 48510 48510 48510 565 1491 3151 685 1611 3266 685 1611 3266 785 1723 3374 885 1860 3474 985 1942 3562 1085 2027 3650			- -	- -			<u>- </u> .						. - -		- -	·	-	-		- -	-	- -		-	-		-				- -	-		-	-		- -		- -		- -													0	4/	18	/94	ļ										-	H		
RATE SP BHP BWPD PSI																		-		-							-	-									-		- -											Fr	ac	tur	e F	Pre	SS	ur	e:										+	- -	-	<u> </u>	
BWPD PSI PSI 185 691 2419 185 905 2628 285 1137 2851 285 1137 2851 285 1137 2851 285 1137 2056 285 1137 3063 285 1137 3063 285 1131 3151 3266 385 1491 3151 3266 3474 3865 1611 3266 3474 3865 1860 3474 3862 3865 1942 3362 3850			-	$\!$	\parallel	#	\parallel		4	\perp		H		\parallel	- -	\sqcup		F		-		+	1		-	H	-	+	-		+	-		-	-	+	-			-																		17	786	6 S	SIF	•					+	+		H	
185 905 2626 285 1137 2851 385 1242 2858 385 1242 2858 485 1370 3063 485 1370 3063 585 1491 3151 685 1611 3266 685 1611 3266 785 1723 3374 885 1860 3474 885 1860 3474 985 1942 3562 1085 2027 3650		-								- [-]	- -							-							-	-			ŀ		-	-	-			-	-																														+	+	\parallel		
185 905 2826 285 1137 2851 385 1242 2956 483 1370 3063 585 1491 3151 685 1611 3266 785 1723 3374 885 1860 3474 985 1942 3362 1085 2027 3650				-					. 						·					-		- -	-				-		· - 		-			-	-	- -			- -											В																	-	-	-		-
##100					-				-								-			-		-			-			-			-	-		-			-	-													1	85				90)5					26	26	;			1	1		_	_
485 1370 3063 585 1491 3151 685 1611 3266 785 1723 3374 885 1860 3474 985 1942 3562 1085 2027 3650		1	11	Ø	Ц						1		-		1		-	-				-	-	1	ŀ	-	1	- -	-		1		- -			-	-		+			$\sharp \downarrow$		+																							+		$\frac{1}{1}$	7	_
685 1611 3266 785 1723 3374 885 1860 3474 985 1942 3562 1085 2027 3650						· -				- -	-			-		-	- -	-		- -		- -		- -	-		-	- -	-		- -	-	- -		-		-		-		-		+	\mathbb{H}							4	85			1	37	70					30	63	}			-	-	H		
785 1723 3374 885 1860 3474 985 1942 3562 1085 2027 3650	8					-	-			- -		H						-	-			- -					-		-		-				-		-		-		-			\pm																							+	1	-		-
985 1942 3562 1085 2027 3650	1			- -		.	 					-	- -		- -				-			- -			-		-	- -				Ħ		+	-	- -	-	-	‡	-	- -	-	+	-							7	85			1	72	23					33	74				-	+			_
1085 2027 3650 1085 2027 3650 1085 2027 3650 1085 2027 3650	11/4	4	100	0							-								-										E							1	-		-																												1	-			
E 370	- N		П											- -					- -	-	- 	-		. - -	- :	-		- -					- -	-		‡			- -	-	-			\exists																							1	-			
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3							 -			- -		H			- -					/	1	1					-	-	-								1		-		7		7			H		† †		r- 1-	-1-1	·- r -	r-1		1-7		1	1 1	1		1					1 1	. 	+	+		-
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				.				-								-		И	8			- -					-	- -	-		- -		+			+			+								-												-		E		1		1	E					
	2/2	3	50		-	-			-						-		1	1				-							E		-						-		+		+		+				+	H	Н		Ħ		H	‡	\Box		+	H	-	H	+	\vdash	+	$\frac{1}{1}$	+	+		+	╁╁	H	
	J.		- -	-		4	H	3	4	2 c	,					1) -	-		-		-	-	- -	-		-	-	-		+					_	E			E									+					-			-		1		-										
													(1	1				_	-			-													_	-		-	-			+	\parallel			+		-					- -					-		-	-	+					- -		-	-
			-	-		- -	- . - .	\dagger	-	.		7		-		-						- -	-				-	+	-		+		+	-		+	+		-		_		-	+			-				-			+					- -		-					- -		-			-
	37,0	В	bb	b							Ø						- -														-		-				-		-								1				-						-		+		-		- -	- -		-		+			 -
	14			-					/	3		-	- -			-		-		-		- -	-	-	-		_	_	-	-	- -	-					-		+		_		\pm				_												+		- -		+			-					-
	3							\mathcal{Y}		- -			-	-	-			-			-											-							-				-				+	\parallel			- -	-		_			\pm	-	- -		+		- -		- - - -	+	-	-	1-1		-
										-					-	-			-			- -	-	- -	-	-			-			-		-	-	+		-	+			F	+				1				-						F		\pm		-	-									-
	$B_{\mathcal{C}}$	70	ΔX															E											E							7			1			F					‡		-		-			+	+		+	H	-		‡	H	+	+-	H	\pm		‡			-
			ļ. ļ	∤ ∤⋅				-		. -		-					- -	-			-	-			- -				- -		- - - -			-	-	+	-		+	- -		-					_		+								-		+		_					-					-
			- -	-	1	- -	-		- -		- -	-	- -		_							-			-	E		1	Ŧ		-							Н							\pm		1		-						+		+		1	-	- -	+	+				-				-
2000 500 1600 1500 2000 2500 15			-	- -				-		- -					_	-				-		- -	-		- -			1	+		_	H		+		-	-	H	#	- -		+	H		- -	H	+				+				+				\pm			-			Z	1		-			ŀ
The terms Rote - But D			1 -1			-		Ш												-		1	E		-			_						E		-	1		1	-		F			F	\prod	-	\prod	Ŧ	Ħ	Ŧ	H			F			\prod	-		+	F	$oxed{\bot}$	K	H				+	H	-
Incection Page - Bures			- -		0					- -	ξþ	φ				-	-	40	9	-			-	1	\$	Ç.			E		 - -	3		\$		1	1		2	4	þ¢					\parallel			1		1						1				-	-		+		7	1-1		- 1 1	1 1	I.
						- 1	-																		-			-[-	1		-		- -	1			- -		-	-		-					+		- -		+				-				+		+	1		-		+	-		- -	F	-
						1				.					'nΣ		Ē¢	Γ	77	Ψ		K.	771	e	=	1	2	7		Н				F	F			F	- -			-					-	-	-[-		-			- - - -	+						-	J		+		-		- -	-		ļ.
			- -	- -	H	1	-	H	-	+	1	\parallel	1	-	+	님	-	H	-	+		+			+	H		+	+	$ \cdot $	+	H	-	+	-	-	+	H	+	+		+	H		H	H	+		7	H	+			H	+	H	+	\prod	Ŧ	-	+	F	H	+	H	+	H	+		H	-



STATE OF NEW MEXICO

ENERGY, AND MINERALS DEPARTMENT

CONSERVATION DIVISION HOBBS DISTRICT OFFICE June 17, 1994

BRUCE KING

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

OIL CONSERVATION DIVISON
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:

The Wiser Oil Company

Maljamar Grayburg Unit #6-I

3-17-32

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Kery truly yours

Jerrý Sexton

Supervisor, District I

STATE OF NEW MEXICO

AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

June 17, 1994

BRUCE KING

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

OIL CONSERVATION DIVISON 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:

The Wiser Oil Company Maljamar Grayburg Unit Operator

10-17-32

Lease & Well No.

#51-C Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

BRUCE KING

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

OIL CONSERVATION DIVISON
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:

The Wiser Oil Company	Maljamar Grayburg Unit #11-	-N 3-17-32
Operator	Lease & Well No. U	nit S-T-R
and my recommendations are a	s follows:	
011		

Very truly yours

Jerry Sexton

Supervisor, District I

NAIL CONSERVATION DIVISION STATE OF NEW MEXICO

REENERGY AND MINERALS DEPARTMENT

June 17, 1994

94 JUN 23 AM 8 50 OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

BRUCE KING

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

OIL CONSERVATION DIVISON
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:

The Wiser Oil Company

Maljamar Grayburg Unit #150-J

3-17-32

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I