

SWD-467
✓ PDEV0020900467



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



July 7, 1992

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

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

Unichem International, Inc.
P.O. Box 1499
Hobbs, New Mexico 88240

Attention: Richard Brakey

RE: *Injection Pressure Increase*
R.A. State No. 1
"K" 31-18S-36E
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated June 26, 1992, to increase the surface injection pressure on R.A. State No. 1. This request is based on a step rate tests conducted on this well June 19, 1992. The results of the tests 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

R.A. State No. 1
1980' FSL & 1980' FWL
"K" 31-18S-36E

1070 PSIG

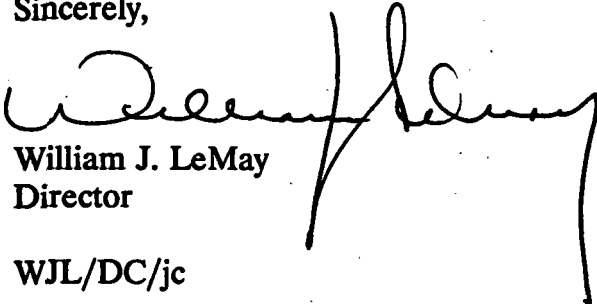
Unichem International, Inc.

July 7, 1992

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', with a long, sweeping horizontal stroke extending to the right.

William J. LeMay
Director

WJL/DC/jc

cc: Oil Conservation Division - Hobbs
File: SWD-467
Rick Brown

NO WAITING PERIOD

COMPANY: UNICHEM INTERNATIONAL, INC.
ADDRESS: P.O. Box 1499
CITY, STATE, ZIP: HOBBS, NM 88240
ATTENTION: RICHARD BRAKEY

Re: Injection Pressure Increase
R.A. STATE No. 1
"K" 31-18S-36E
LEA County, New Mexico

Dear Sir:

Reference is made to your request dated JUNE 26, 1992, to increase the surface injection pressure on R.A. STATE No. 1 this well. This request is based on step rate tests conducted on ~~these~~ this well JUNE 19, 1992. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on ~~these~~ this well is justified at this time.

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

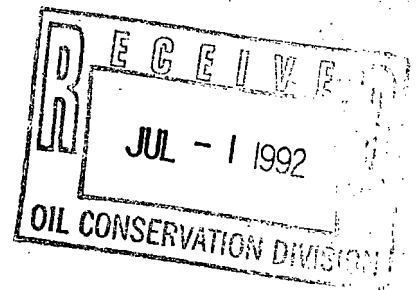
<u>Well & Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>R.A. STATE No. 1</u>	<u>1070 PSI</u>
<u>1980' FSL & 1980' FWL</u>	
<u>"K" 31-18S-36E</u>	

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. GALLEGO~~ D. CATANACH FILE- SWD-467 OCD- HOBBS
R. BROWN



Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010



June 26, 1992

Oil Conservation Division
Energy & Minerals Department
P. O. Box 2088
Santa Fe, New Mexico 87504

ATTN: David Catanach

RE: Maximum Injection Pressure - R. A. State # 1 SWD

Dear David:

We wish to increase the maximum injection pressure on the R. A. State # 1 SWD to 1,070 pounds. Enclosed is the original step-rate injection test performed by John West Engineering.

Thank you for assisting us in this matter.

Sincerely,

UNICHEM INTERNATIONAL INC.

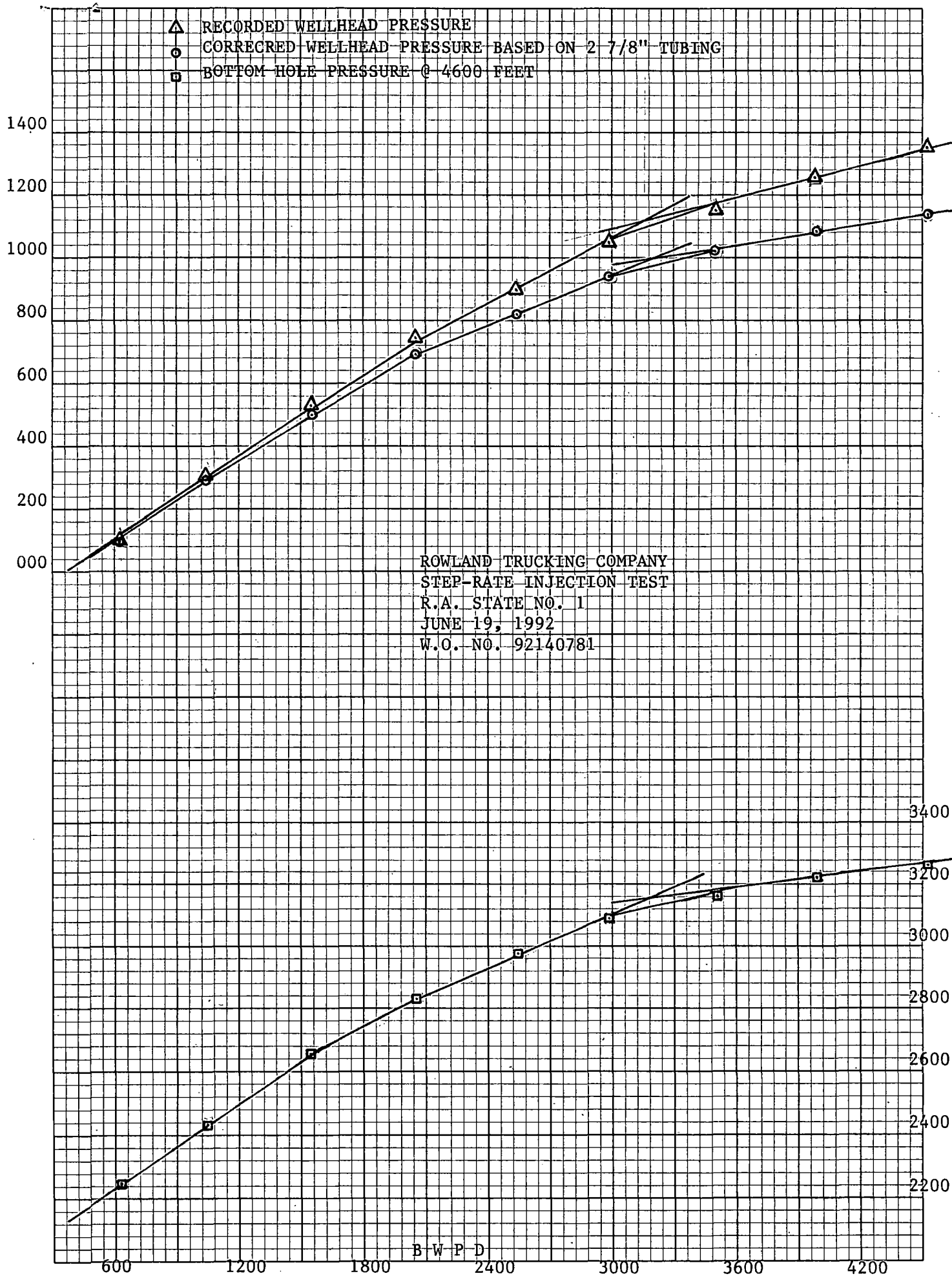
A handwritten signature in cursive script, appearing to read 'Richard Brakey', with a long horizontal line extending from the end of the signature.

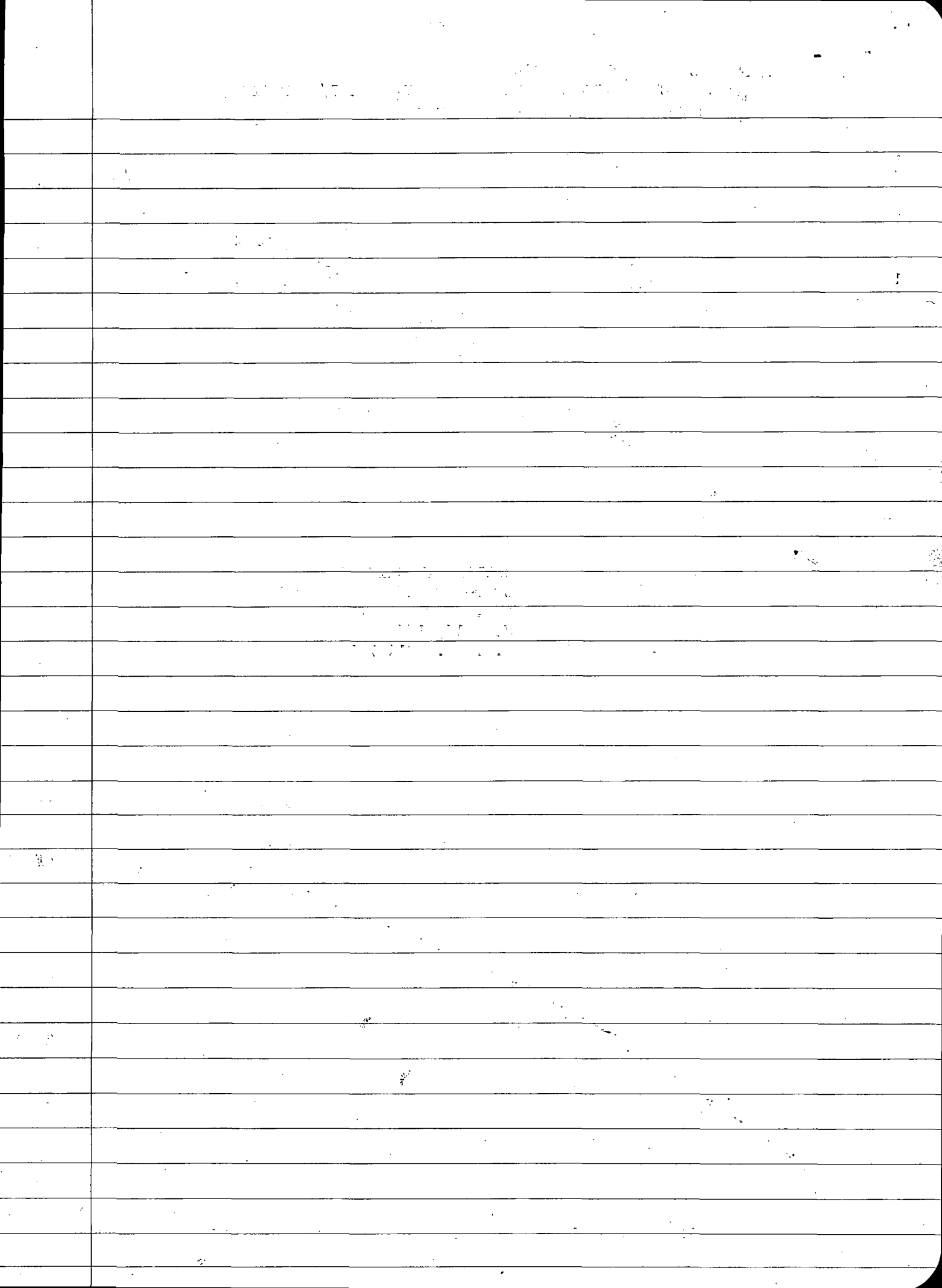
Richard Brakey
Vice-President

RB/mh

Encl:

UNICHEM INTERNATIONAL INC.





JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: Rowland Trucking Company

DATE: June 18, 1982

WELL NAME: R.A. State No. 1
Lea County, New Mexico

WO#: 92140761

MID-PERF. =

PACKER DEPTH = 4554

BHP GAUGE DEPTH = 4800

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psf)	(5) CORRECTED TUBING PRESS. (psig) (1) - (4)	(6) INJECTION RATE (gpm) (1) / 2.44687	(7) MEASURED BHP (psf)
1	9:20							
	9:25	14.0	2.1	604.8	5.162	8.8	17.64	2180
	9:30	92.3	4.3	633.6	5.626	86.7	18.48	2219
	9:35	117.6	6.5	633.6	5.626	112.0	18.48	2246
				624.0				
2	9:40	228.7	10.1	1036.8	13.992	214.7	30.24	2356
	9:45	279.3	13.8	1065.6	14.719	264.6	31.08	2402
	9:50	308.4	17.4	1036.8	13.992	294.4	30.24	2435
3				1046.4				
	9:55	448.7	22.8	1555.2	29.624	419.1	45.36	2553
	10:00	499.4	28.2	1555.2	29.624	469.8	45.36	2615
	10:05	529.9	33.6	1555.2	29.624	500.3	45.36	2656
4				1555.2				
	10:10	639.9	40.7	2044.8	49.151	590.7	59.64	2747
	10:15	671.6	47.9	2073.6	50.440	621.2	60.48	2795
	10:20	743.7	55.0	2044.8	49.151	694.5	59.64	2830
5				2054.4				
	10:25	808.1	63.9	2563.2	74.659	733.4	74.76	2899
	10:30	859.9	72.8	2563.2	74.659	785.2	74.76	2942
	10:35	892.7	81.5	2505.6	71.584	821.1	73.08	2973
				2543.9				
6	10:40	1000.0	91.8	2966.4	97.827	902.2	86.52	3025
	10:45	1016.4	102.3	3024.0	101.370	915.0	88.20	3059
	10:50	1041.8	112.7	2995.2	99.591	942.2	87.36	3085
				2995.2				
7	10:55	1105.1	125.0	3542.4	135.841	969.3	103.32	3119
	11:00	1163.3	137.2	3513.6	133.805	1029.5	102.48	3141
	11:05	1151.9	149.3	3484.8	131.783	1020.1	101.64	3160
				3513.6				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (3)-(4)	(6) INJECTION RATE (gpm) (3)/(74.2057)	(7) MEASURED BHP (psi)
8	11:10	1219.0	163.2	4003.2	170.328	1048.7	116.76	3181
	11:15	1241.8	177.0	3974.4	168.068	1073.7	115.92	3199
	11:20	1250.7	190.9	4003.2	170.328	1080.4	116.76	3220
				3993.6				
9	11:25	1320.3	206.5	4492.8	210.857	1109.4	131.04	3234
	11:30	1348.2	222.3	4550.4	215.886	1132.3	132.72	3249
	11:35	1348.9	238.1	4550.4	215.886	1131.0	132.72	3259
				4531.2				
Fall-Off	11:36	1114.1				1114.1		3248
	11:37	1128.0				1128.0		3242
	11:38	1122.9				1122.9		3238
	11:39	1117.9				1117.9		3232
	11:40	1114.1				1114.1		3227
	11:41	1110.3				1110.3		3223
	11:42	1105.2				1105.2		3219
	11:43	1101.4				1101.4		3214
	11:44	1097.6				1097.6		3211
	11:45	1095.1				1095.1		3208
	11:46	1091.3				1091.3		3205
	11:47	1088.8				1088.8		3200
	11:48	1085.0				1085.0		3197
	11:49	1081.2				1081.2		3194
	11:50	1078.7				1078.7		3191

STEP NO.	TIME	INJECTION RATE (LBS/HR)	CUMULATIVE INJECTION VOLUME (GAL)	INJECTION RATE (GPM)	INJECTION HEAD (PSI)	CORRECTION FACTOR (PSI)	INJECTION RATE (GPM)	INJECTION HEAD (PSI)
3	11:30	1078.7	100.9	4003.5	170.358	1048.7	118.76	3181
	11:35	1504.8	137.0	3074.4	160.068	1073.7	118.95	3195
	11:40	1500.7	100.9	4003.5	170.358	1080.4	119.76	3220
	11:45	1350.0	300.8	4402.8	210.857	1109.4	121.04	3234
	11:50	1348.5	322.8	4250.4	210.886	1125.3	122.75	3248
4	11:55	1348.9	338.1	4250.4	212.886	1131.0	123.75	3250
	11:58			4281.5				
	12:00	1114.1				1114.1		3248
	12:05	1158.0				1158.0		3248
	12:10	1155.3				1155.3		3238
	12:15	1117.9				1117.9		3235
	12:20	1114.1				1114.1		3237
	12:25	1110.3				1110.3		3258
	12:30	1102.5				1102.5		319
	12:35	1101.4				1101.4		3214
	12:40	1097.6				1097.6		3211
	12:45	1095.1				1095.1		3208
	12:50	1091.3				1091.3		3202
	12:55	1088.8				1088.8		3200
	13:00	1082.0				1082.0		3197
	13:05	1081.5				1081.5		3184
	13:10	1078.7				1078.7		3191



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

September 16, 1992

RECEIVED
'92 SEP 22 AM 8 55

BRUCE KING
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:

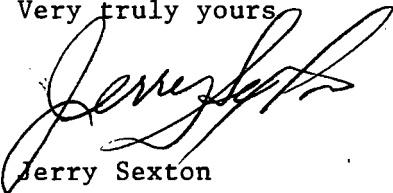
I have examined the step rate test for the:

Unichem International Inc.	RA State (SWD) #1-K	31-18-36
Operator	Lease & Well No.	Unit S-T-R

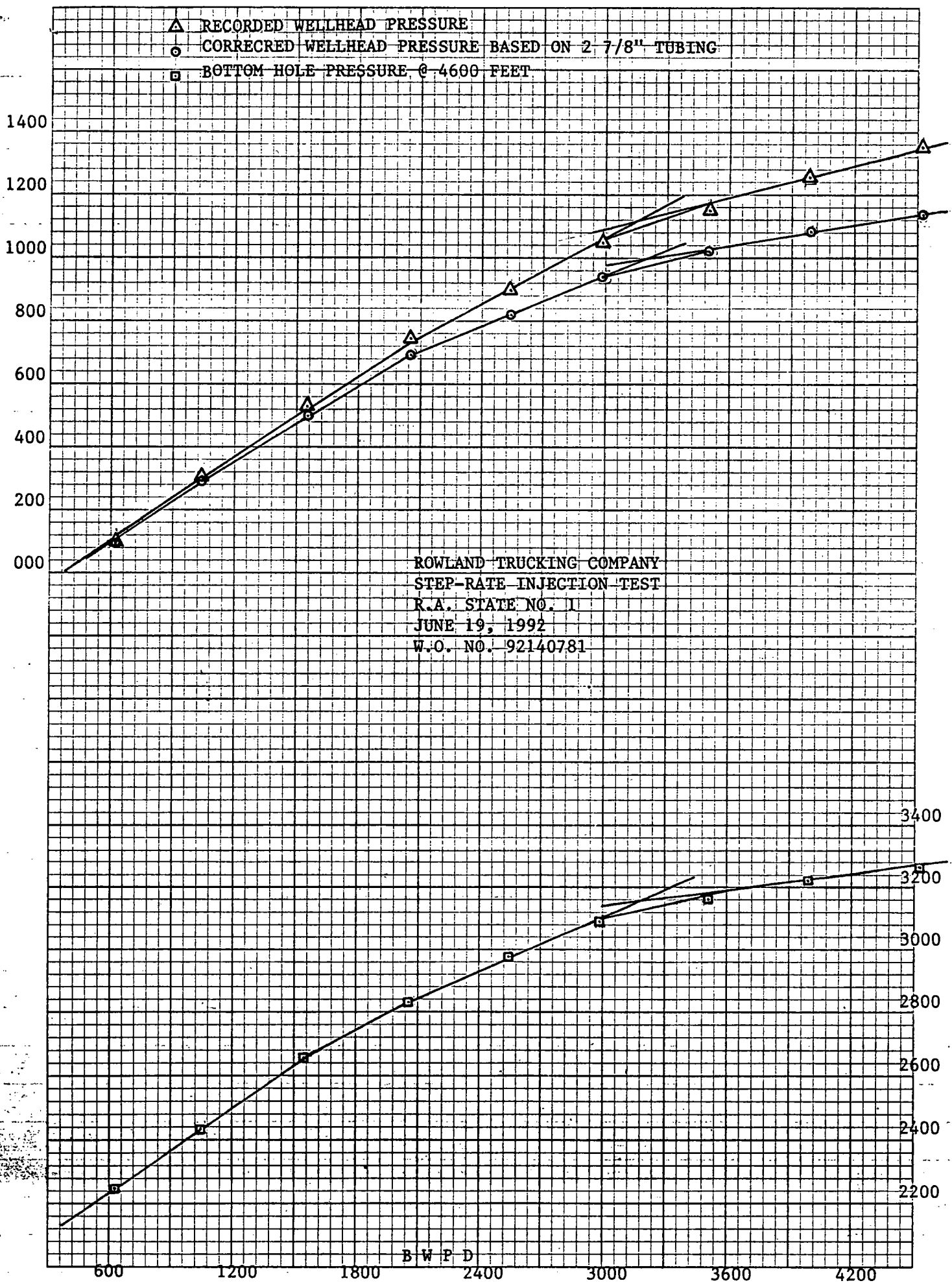
and my recommendations are as follows:

OK

Very truly yours


Jerry Sexton
Supervisor, District I

/bp



JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: Rowland Trucking Company

DATE: June 18, 1992

WELL NAME: R.A. State No. 1

WO#: 92140791

Lea County, New Mexico

MID-PERF8. =

PACKER DEPTH = 4554

BHP GAUGE DEPTH = 4800

STEP NO. A		(1) SURFACE TUBING PRESS (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (ps)	(5) CORRECTED TUBING PRESS (ps) (1) - (4)	(6) INJECTION RATE (gpm) (3) / 2.448	(7) MEASURED BHP (ps)
	9:20							
	9:25	14.0	2.1	604.8	5.162	8.8	17.64	2180
	9:30	92.3	4.3	633.6	5.626	86.7	18.48	2219
1	9:35	117.6	6.5	633.6	5.626	112.0	18.48	2246
				624.0				
	9:40	228.7	10.1	1036.8	13.992	214.7	30.24	2356
	9:45	279.3	13.8	1065.6	14.719	264.6	31.08	2402
2	9:50	308.4	17.4	1036.8	13.992	294.4	30.24	2435
				1046.4				
	9:55	448.7	22.8	1555.2	29.624	419.1	45.36	2553
	10:00	499.4	28.2	1555.2	29.624	469.8	45.36	2615
3	10:05	529.9	33.6	1555.2	29.624	500.3	45.36	2656
				1555.2				
	10:10	639.9	40.7	2044.8	49.151	590.7	59.64	2747
	10:15	671.6	47.9	2073.6	50.440	621.2	60.48	2795
4	10:20	743.7	55.0	2044.8	49.151	694.5	59.64	2830
				2054.4				
	10:25	808.1	63.9	2563.2	74.659	733.4	74.76	2899
	10:30	859.9	72.8	2563.2	74.659	785.2	74.76	2942
5	10:35	892.7	81.5	2505.6	71.584	821.1	73.08	2973
				2543.9				
	10:40	1000.0	91.8	2966.4	97.827	902.2	86.52	3025
	10:45	1016.4	102.3	3024.0	101.370	915.0	88.20	3059
6	10:50	1041.8	112.7	2995.2	99.591	942.2	87.36	3085
				2995.2				
	10:55	1105.1	125.0	3542.4	135.841	969.3	103.32	3119
	11:00	1163.3	137.2	3513.6	133.805	1029.5	102.48	3141
7	11:05	1151.9	149.3	3484.8	131.783	1020.1	101.64	3160
				3513.6				

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
STEP NO.		SLURRY	CUMULATIVE	INJECTION	FRICTION	CORRECTED	INJECTION	MEASURED
S		THICKNESS	VOL. INJECTED	RATE	HEAD LOSS	THICKNESS	RATE (GPM)	RIP
REMARKS	TIME	(in)	(bbl)	(bbl/day)	(psi)	(in) (5) - (2)	(GPM) (7) - (4)	(psi)
8	11:10	1219.0	163.2	4003.2	170.328	1048.7	116.76	3181
	11:15	1241.8	177.0	3974.4	168.068	1073.7	115.92	3199
	11:20	1250.7	190.9	4003.2	170.328	1080.4	116.76	3220
				3993.6				
9	11:25	1320.3	206.5	4492.8	210.857	1109.4	131.04	3234
	11:30	1348.2	222.3	4550.4	215.888	1132.3	132.72	3249
	11:35	1346.9	238.1	4550.4	215.888	1131.0	132.72	3259
				4531.2				
Fall-Off	11:36	1114.1				1114.1		3248
	11:37	1128.0				1128.0		3242
	11:38	1122.9				1122.9		3236
	11:39	1117.9				1117.9		3232
	11:40	1114.1				1114.1		3227
	11:41	1110.3				1110.3		3223
	11:42	1105.2				1105.2		3219
	11:43	1101.4				1101.4		3214
	11:44	1097.6				1097.6		3211
	11:45	1095.1				1095.1		3208
	11:46	1091.3				1091.3		3205
	11:47	1088.8				1088.8		3200
	11:48	1085.0				1085.0		3197
	11:49	1081.2				1081.2		3194
	11:50	1078.7				1078.7		3191