



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

May 8, 1998

CF10648
R-9885-A

Seely Oil Company
815 West Tenth Street
Fort Worth, Texas 76102

Attn: Mr. C.W. Stumhoffer

**RE: Injection Pressure Increase,
Central 'EK' Queen Unit
Lea County, New Mexico**

Dear Mr. Stumhoffer:

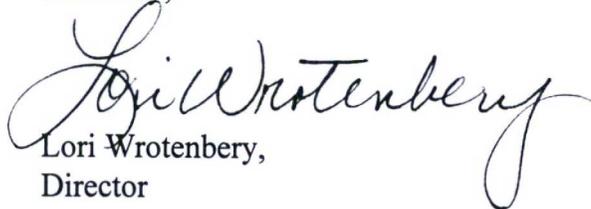
Reference is made to your requests dated January 23 and 29, 1998 to increase the surface injection pressure on three wells in the above referenced waterflood unit. These requests are based on step rate tests conducted from January 20 to 26, 1998. The results of the tests have been reviewed by my staff and we feel increases 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:

<i>Well Name and Number</i>	<i>Location</i>	<i>Maximum Surface Injection Pressure</i>
Central 'EK' Queen Tract 5 No.1	Unit 'M' of Section 9	1929 PSIG
Central 'EK' Queen Tract 6 No.1	Unit 'L' of Section 9	2199 PSIG
Central 'EK' Queen Tract 11 No.2	Unit 'A' of Section 17	2405 PSIG
All located in Township 18 South, Range 34 East, Lea County, New Mexico.		

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

Sincerely,



Lori Wrotenberg,
Director

LW/BES/kv

cc: Oil Conservation Division - Hobbs
Files: Case No.10648; PSI-X 4th QTR98

PS1-X N/R

SEELY OIL COMPANY

815 WEST TENTH STREET
FORT WORTH, TEXAS 76102



January 23, 1998

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Seely Oil Company, Unit Operator
Central EK Queen Unit (CEKQU)
E-K Yates-Seven Rivers-Queen Field
Lea County, New Mexico
Request for Administrative Authority
to Increase Water Injection Pressure
Tract 5 Well No. 1
SW/4 SW/4 Section 9, T18S, R34E, NMPM

Attention: Mr. David Catanach

Gentlemen:

By letter dated February 18, 1997, your office granted administrative authority to increase surface injection pressure at CEKQU Tract 5 Well No. 1 to 1300 PSIG.

Subsequent to this authority, surface injection pressure has been increased to this level, and water injection rates have again fallen to levels that are not conducive to a successful water flood operation.

Another Step Rate Injection Test has been run on January 21, 1998 by West-Test, Inc. The results of this test are attached hereto.

Based on this Step Rate Injection Test, Seely Oil Company requests approval of the NMOCD Division Director to increase surface water injection pressure at this well to a maximum of 1980 PSIG.

Your consideration and approval of this request at your earliest convenience is needed. Should you have any questions, please advise.

Very truly yours

C. W. Stumhoffer

C. W. Stumhoffer, Agent

CWS

Enclosure: Step Rate Injection Test
CEKQU Tract 5 Well No. 1

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: SEELY OIL COMPANY

DATE: JANUARY 20, 1998

WELL NAME: CENTRAL EK QUEEN UNIT NO. 5-1
LEA COUNTY, NEW MEXICO

W.O.#: 98-14-0069

PERFS = 4470

PACKER DEPTH = 4341

BHP GAUGE DEPTH = SURFACE ONLY

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	9:15	1106.7				1106.7		
	9:20	1256.2	0.8	230.4	2.551	1253.6	6.72	
	9:25	1318.3	1.5	201.6	1.993	1316.3	5.88	
1	9:30	1369.0	2.2	201.6	1.993	1367.0	5.88	
				211.2				
	9:35	1530.0	4.0	518.4	11.436	1518.6	15.12	
	9:40	1584.5	5.7	489.6	10.289	1574.2	14.28	
2	9:45	1639.0	7.4	489.6	10.289	1628.7	14.28	
				499.2				
	9:50	1711.3	9.8	691.2	19.472	1691.8	20.16	
	9:55	1750.6	12.1	662.4	17.998	1732.6	19.32	
3	10:00	1787.3	14.4	662.4	17.998	1769.3	19.32	
				672.0				
	10:05	1853.3	17.4	864.0	29.424	1823.9	25.20	
	10:10	1881.1	20.5	892.8	31.264	1849.8	26.04	
4	10:15	1912.8	23.6	892.8	31.264	1881.5	26.04	
				883.2				
	10:20	1966.1	27.4	1094.4	45.565	1920.5	31.92	
	10:25	1977.5	31.2	1094.4	45.565	1931.9	31.92	
5	10:30	1994.0	35.0	1094.4	45.565	1948.4	31.92	
				1094.4				
	10:35	2042.2	39.3	1238.4	57.272	1984.9	36.12	
	10:40	2052.4	43.7	1267.2	59.761	1992.6	36.96	
6	10:45	2063.7	48.1	1267.2	59.761	2003.9	36.96	
				1257.6				
	10:50	2141.3	53.5	1555.2	87.288	2054.0	45.36	
	10:55	2153.9	59.0	1584.0	90.302	2063.6	46.20	
7	11:00	2159.0	64.5	1584.0	90.302	2068.7	46.20	
				1574.4				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbis)	(3) INJECTION RATE (bbis/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) - (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
8 FALLOFF	11:05	2239.1	71.0	1872.0	123.004	2116.1	54.60	
	11:10	2240.3	77.8	1958.4	133.712	2106.6	57.12	
	11:15	2244.0	84.5	1929.6	130.097	2113.9	56.28	
	11:16	2002.3		1920.0		2002.3		
	11:17	1979.5				1979.5		
	11:18	1973.1				1973.1		
	11:19	1968.0				1968.0		
	11:20	1962.9				1962.9		
	11:25	1943.7				1943.7		
	11:30	1929.6				1929.6		

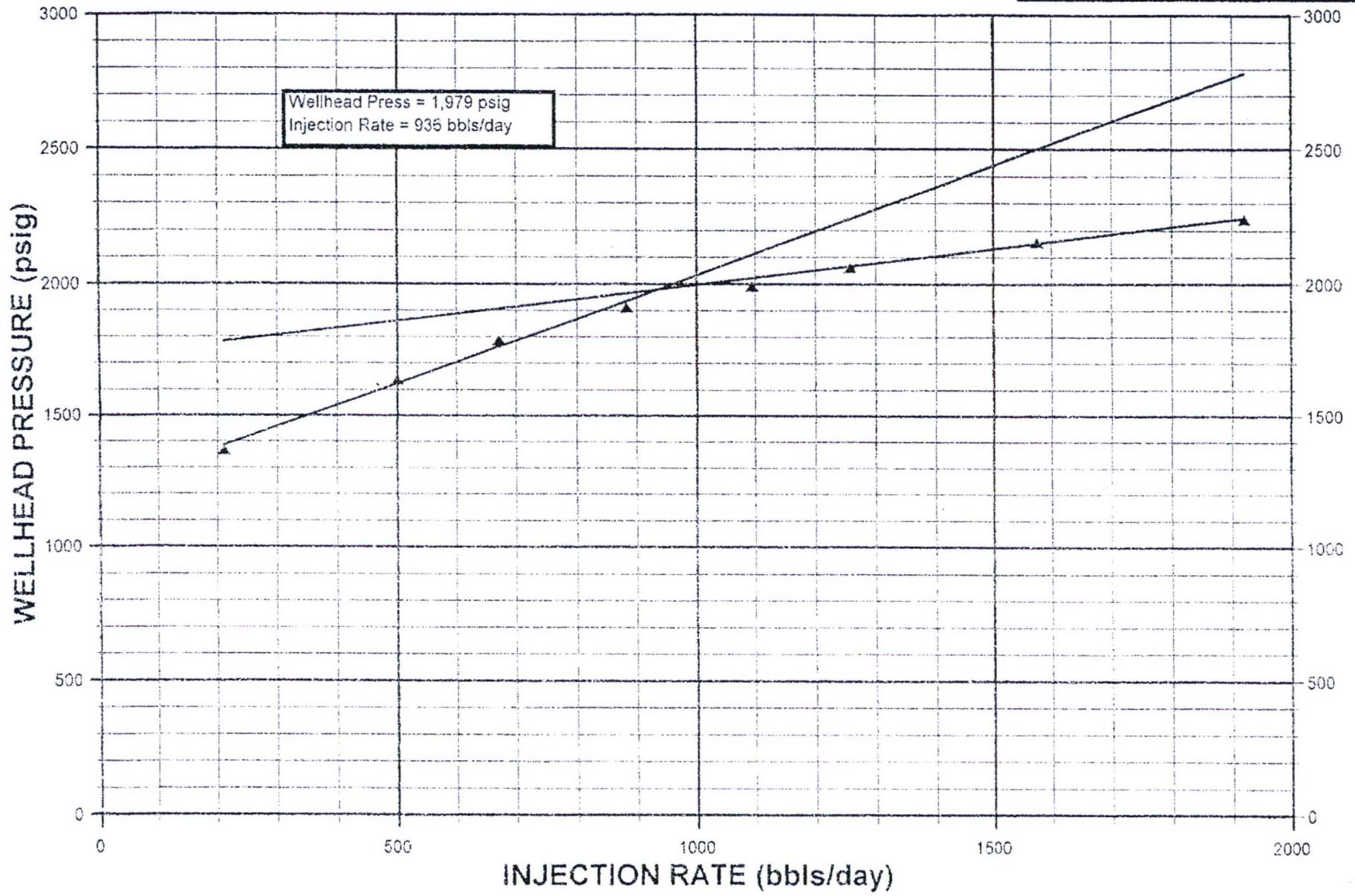
P. 4
1-21-1998 2:35PM
FROM JOHN WEST ENG CO
505 393 3450

STEP RATE INJECTION TEST

SEELY OIL COMPANY

Well Name:
Central EK Queen Unit No. 5-1
Lea County, New Mexico

Wellhead Press = 1,979 psig
Injection Rate = 935 bbls/day



SEELY OIL COMPANY

815 WEST TENTH STREET
FORT WORTH, TEXAS 76102

January 23, 1998

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Seely Oil Company, Unit Operator
Central EK Queen Unit (CEKQU)
E-K Yates-Seven Rivers-Queen Field
Lea County, New Mexico
Request for Administrative Authority
to Increase Water Injection Pressure
Tract 6 Well No. 1
NW/4 SW/4 Section 9, T18S, R34E, NMPM

Attention: Mr. David Catanach

Gentlemen:

By letter dated February 18, 1997, your office granted administrative authority to increase surface injection pressure at CEKQU Tract 6 Well No. 1 to 1930 PSIG.

Subsequent to this authority, surface injection pressure has been increased to this level, and water injection rates have again fallen to levels that are not conducive to a successful water flood operation.

Another Step Rate Injection Test has been run on January 22, 1998 by West-Test, Inc. The results of this test are attached hereto.

Based on this Step Rate Injection Test, Seely Oil Company requests approval of the NMOCD Division Director to increase surface water injection pressure at this well to a maximum of 2330 PSIG.

Your consideration and approval of this request at your earliest convenience is needed. Should you have any questions, please contact the undersigned at 817/923-2016 or 817/332-1377.

Very truly yours,

SEELY OIL COMPANY



C. W. Stumhoffer

CWS

Enclosure: Step Rate Injection Test
CEKQU Tract 6 Well No. 1

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: SEELY OIL COMPANY

DATE: JANUARY 21, 1998

WELL NAME: CENTRAL EK QUEEN UNIT NO. 6-1
LEA COUNTY, NEW MEXICO

WO#: 98-14-0070

PERFS - 4380-4385

PACKER DEPTH - 4255

BHP GAUGE DEPTH - SURFACE ONLY

STEP NO. & REMARKS	TIME	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		SURFACE TUBING PRESS. (psig)	CUMMULATIVE VOL. INJECTED (bbls)	INJECTION RATE (bbls/day)	FRICTION HEAD LOSS (psi)	CORRECTED TUBING PRESS. (psi) (1)-(4)	INJECTION RATE (gpm) (3)/34.2857	MEASURED BHP (psi)
	9:00	1720.3				1720.3		
	9:05	1814.1	1.1	316.8	4.509	1809.6	9.24	
	9:10	1853.4	2.3	345.6	5.296	1848.1	10.08	
1	9:15	1878.7	3.5	345.6	5.296	1873.4	10.08	
				336.0				
	9:20	1981.4	5.6	604.8	14.914	1966.5	17.64	
	9:25	2009.3	7.6	576.0	13.627	1995.7	16.80	
2	9:30	2038.5	9.8	633.6	16.255	2022.2	18.48	
				604.8				
	9:35	2159.4	12.8	864.0	28.851	2130.5	25.20	
	9:40	2170.8	15.8	864.0	28.851	2141.9	25.20	
3	9:45	2198.8	18.8	864.0	28.851	2169.9	25.20	
				864.0				
	9:50	2273.9	22.9	1180.8	51.421	2222.5	34.44	
	9:55	2287.9	27.0	1180.8	51.421	2236.5	34.44	
4	10:00	2300.6	31.2	1209.6	53.765	2246.8	35.28	
				1190.4				
	10:05	2422.7	36.3	1468.8	77.001	2345.7	42.84	
	10:10	2436.7	41.6	1526.4	82.680	2354.0	44.52	
5	10:15	2431.6	46.7	1468.8	77.001	2354.6	42.84	
				1488.0				
	10:20	2585.6	53.2	1872.0	120.610	2465.0	54.60	
	10:25	2586.8	59.8	1900.8	124.065	2462.7	55.44	
6	10:30	2593.2	66.3	1872.0	120.610	2472.6	54.60	
				1881.6				
	10:35	2756.1	74.2	2275.2	173.022	2583.1	66.36	
	10:40	2752.3	82.1	2275.2	173.022	2579.3	66.36	
7	10:45	2749.7	90.2	2332.8	181.213	2568.5	68.04	
				2294.4				

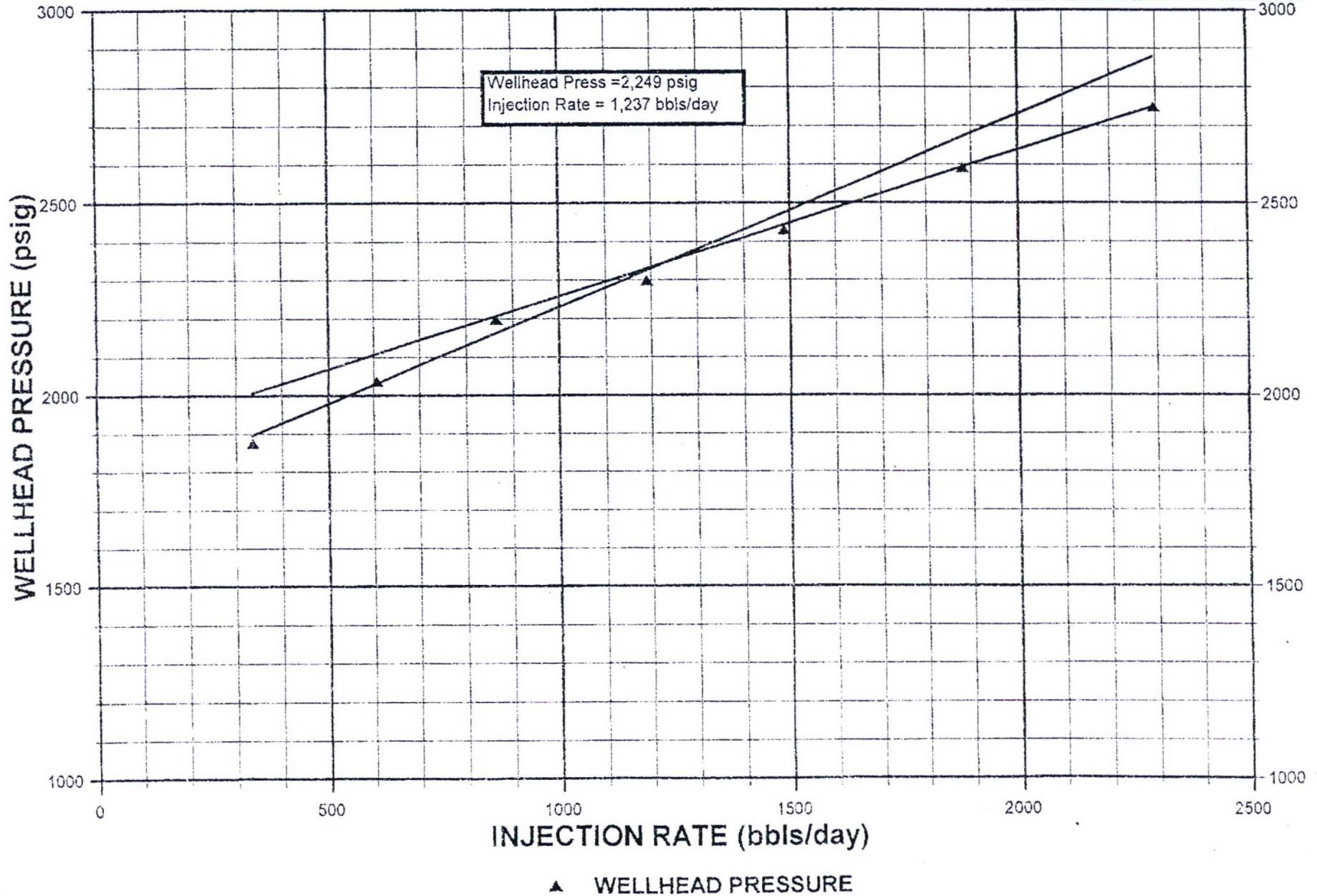
STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) - (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
FALLOFF	10:46	2240.7				2240.7		
	10:47	2228.0				2228.0		
	10:48	2221.5				2221.5		
	10:49	2216.6				2216.6		
	10:50	2211.5				2211.5		
	10:55	2197.5				2197.5		
	11:00	2187.2				2187.2		

P. 4
505 393 3450
FROM JOHN WEST ENG CO
1-22-1998 8:25AM

STEP RATE INJECTION TEST

SEELY OIL COMPANY

Well Name:
Central EK Queen Unit No. 6-1
Lea County, New Mexico



PSI-X N/R

SEELY OIL COMPANY

815 WEST TENTH STREET
FORT WORTH, TEXAS 76102



January 29, 1998

State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Seely Oil Company, Unit Operator
Central EK Queen Unit (CEKQU)
E-K Yates-Seven Rivers-Queen Field
Lea County, New Mexico
Request for Administrative Authority
to Increase Water Injection Pressure
Tract 11 Well No. 2
NE/4 NE/4 Section 17, T18S, R34E, NMPM

Attention: Mr. David Catanach

Gentlemen:

Previously, your office granted administrative authority to increase surface injection pressure at CEKQU Tract 11 Well No. 2 to 2140 PSIG.

Subsequent to this authority, surface injection pressure has been increased to this level, and water injection rates have again fallen to levels that are not conducive to a successful water flood operation.

A Step Rate Injection Test was run on January 26, 1998 by West-Test, Inc., and the results of this test are attached hereto.

On the basis of this Step Rate Injection Test, Seely Oil Company requests approval of the NMOCD Division Director to increase surface injection pressure at this well to a maximum of 2455 PSIG.

Your consideration and approval of this request at your earliest convenience is needed. Should you have any questions, please contact the undersigned at 817/923-2016 or 817/332-1377.

Very truly yours,

SEELY OIL COMPANY

C. W. Stumhoffer, Agent

C. W. Stumhoffer

CWS

Enclosure: Step Rate Injection Test
CEKQU Tract 11 Well No. 2

cc: State of New Mexico Oil Conservation Division
Hobbs, New Mexico

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: SEELY OIL COMPANY

DATE: JANUARY 23, 1998

WELL NAME: CENTRAL EK QUEEN UNIT NO. 11-2
LEA COUNTY, NEW MEXICO

WO#: 98-14-0072

PERFS = 4456-4474

PACKER DEPTH = 4311

BHP GAUGE DEPTH = SURFACE ONLY

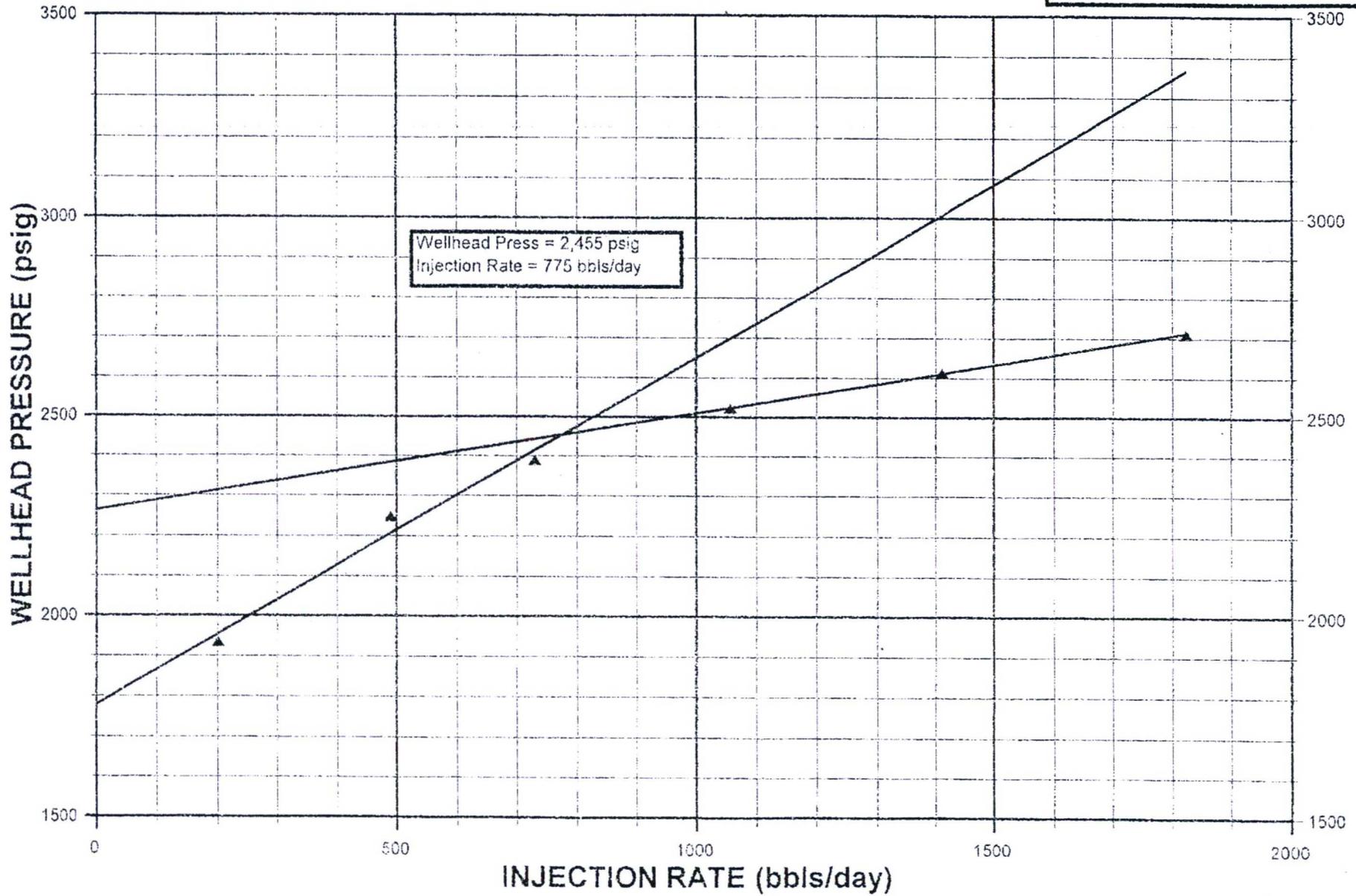
STEP NO. & REMARKS	TIME	(1)	(2)	(3)	(4)	(5)		(6)	(7)
		SURFACE TUBING PRESS. (psig)	CUMMULATIVE VOL. INJECTED (bbls)	INJECTION RATE (bbls/day)	FRICTION HEAD LOSS (psi)	CORRECTED TUBING PRESS. (psi) (1) (4)	INJECTION RATE (gpm) (3)/34.2057	MEASURED BHP (psi)	
	8:50	1452.8					1452.8		
	8:55	1850.8	0.7	201.6	1.991		1848.8	5.88	
	9:00	1904.1	1.4	201.6	1.991		1902.1	5.88	
1	9:05	1937.0	2.1	201.6	1.991		1935.0	5.88	
				201.6					
	9:10	2163.2	3.8	489.6	10.277		2152.9	14.28	
	9:15	2215.3	5.5	489.6	10.277		2205.0	14.28	
2	9:20	2250.2	7.2	489.6	10.277		2239.9	14.28	
				489.6					
	9:25	2382.0	9.7	720.0	20.976		2361.0	21.00	
	9:30	2383.2	12.3	748.8	22.555		2360.6	21.84	
3	9:35	2392.1	14.8	720.0	20.976		2371.1	21.00	
				729.6					
	9:40	2513.0	18.6	1094.4	45.514		2467.5	31.92	
	9:45	2506.6	22.2	1036.8	41.181		2465.4	30.24	
4	9:50	2523.2	25.8	1036.8	41.181		2482.0	30.24	
				1056.0					
	9:55	2613.5	30.7	1411.2	72.846		2540.7	41.16	
	10:00	2614.8	35.6	1411.2	72.846		2542.0	41.16	
5	10:05	2613.5	40.5	1411.2	72.846		2540.7	41.16	
				1411.2					
	10:10	2715.2	46.8	1814.4	115.964		2599.2	52.92	
	10:15	2708.9	53.1	1814.4	115.964		2592.9	52.92	
6	10:20	2712.7	59.5	1843.2	119.392		2593.3	53.76	
				1824.0					

STEP NO. & REMARKS	TIME	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		SURFACE TUBING PRESS. (psig)	CUMMULATIVE VOL. INJECTED (bbls)	INJECTION RATE (bbls/day)	FRICITION HEAD LOSS (psi)	CORRECTED TUBING PRESS. (psi) (1) - (4)	INJECTION RATE (gpm) (3)/34.2857	MEASURED BHP (psi)
FALLOFF	10:21	2416.2				2416.2		
	10:22	2398.4				2398.4		
	10:23	2388.2				2388.2		
	10:24	2380.6				2380.6		
	10:25	2372.9				2372.9		
	10:30	2343.6				2343.6		
	10:35	2323.2				2323.2		

STEP RATE INJECTION TEST

SEELY OIL COMPANY

Well Name:
Central EK Queen Unit No. 11-2
Lea County, New Mexico



▲ WELLHEAD PRESSURE

P. 4
FROM JOHN WEST ENG CO 505 393 3450
1-26-1998 4:43PM