



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

May 25, 1994

Texaco Exploration and Production, Inc.
 P.O. Box 730
 Hobbs, NM 88421-0730

Attention: Darlene de Aragao

RE: Injection Pressure Increase W.H. Rhodes "B" NCT-1 Waterflood Project, Lea County, New Mexico

Dear Ms. de Aragao:

Reference is made to your request dated April 28, 1994, to increase the surface injection pressure on four wells within the W.H. Rhodes "B" Federal NCT-1 Waterflood Project. This request is based on step rate tests conducted on these wells during April 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.

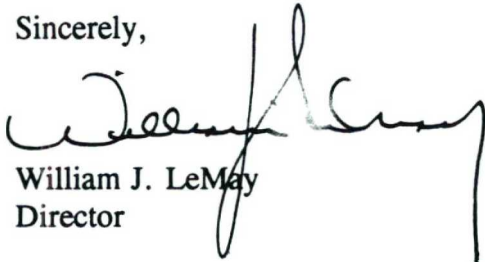
You are therefore authorized to increase the surface injection pressure on the W.H. Rhodes "B" NCT-1 Well Nos. 1, 13 and 14. Your request to increase the surface injection pressure on the W.H. Rhodes "B" NCT-1 Well No. 16 is hereby denied.

Well and Location	Maximum Injection Surface Pressure
W.H. Rhodes "B" NCT-1 Well No. 1 Unit G, Section 27, Township 26 South, Range 37 East	910 PSIG
W.H. Rhodes "B" NCT-1 Well No. 13 Unit O, Section 27, Township 26 South, Range 37 East	1550 PSIG
W.H. Rhodes "B" NCT-1 Well No. 14 Unit E, Section 26, Township 26 South, Range 37 East	810 PSIG
All wells located in Lea County, New Mexico.	

Injection Pressure Increase
Texaco Exploration and Production, Inc.
May 25, 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', with a long, sweeping horizontal stroke extending to the right.

William J. LeMay
Director

WJL/DRC/amg

cc: Oil Conservation Division - Hobbs
File: Case No. 10572
R. Brown

NO WAITING PERIOD

COMPANY: Texaco Exploration & Production Inc.
ADDRESS: P.O. Box 730
CITY, STATE, ZIP: Albbs. New Mexico 88241-0730
ATTENTION: Darlene de Aragao

Re: Injection Pressure Increase

W.H. Rhodes "B" NET-1
Waterflood Project
La County, New Mexico

Dear Sir:

Reference is made to your request dated April 28, 1994, to increase the surface injection pressure on four wells within the W.H. Rhodes "B" Federal NET-1 Waterflood Project. This request is based on step rate tests conducted on these wells during April, 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:

<u>Well & Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>W.H. Rhodes "B" NET-1 No. 1</u> <u>Unit C, Section 27, T-26S, R-37E;</u>	<u>910 psig</u>
<u>W.H. Rhodes "B" NET-1 No. 13</u> <u>Unit O, Section 27, T-26S, R-37E;</u>	<u>1550 psig</u>
<u>W.H. Rhodes "B" NET-1 No. 14</u> <u>Unit E, Section 26, T-26S, R-37E;</u>	<u>810 psig</u>
<u>W.H. Rhodes "B" NET-1 No. 16</u> <u>Unit F, Section 26, T-26S, R-37E;</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. GALLEGOS

D. CATANACH

FILE-

Case No. 10572

OCD-

Albbs

R. Brown



Texaco E & P

PO Box 740
P.O. Box 740
400 740

April 28, 1994

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe N.M. 87504

10'

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

Re: PRESSURE INCREASE ON INJECTION WELL
W.H. Rhodes "B" NCT-1 #16
Unit F, Section 26
T-26-S, R-37-E
Lea County, New Mexico

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on the above well from 1150 psig to 1550 psig. A step rate injection test was ran on the well. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,

Darlene de Aragao
Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments
cc: Jerry Sexton/NMOCD/Hobbs

WEST - TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 27, 1994

WELL NAME: RHODES "B" FED. NCT-1 NO.16
LEA COUNTY, NEW MEXICO

WO#: 94-14-0661

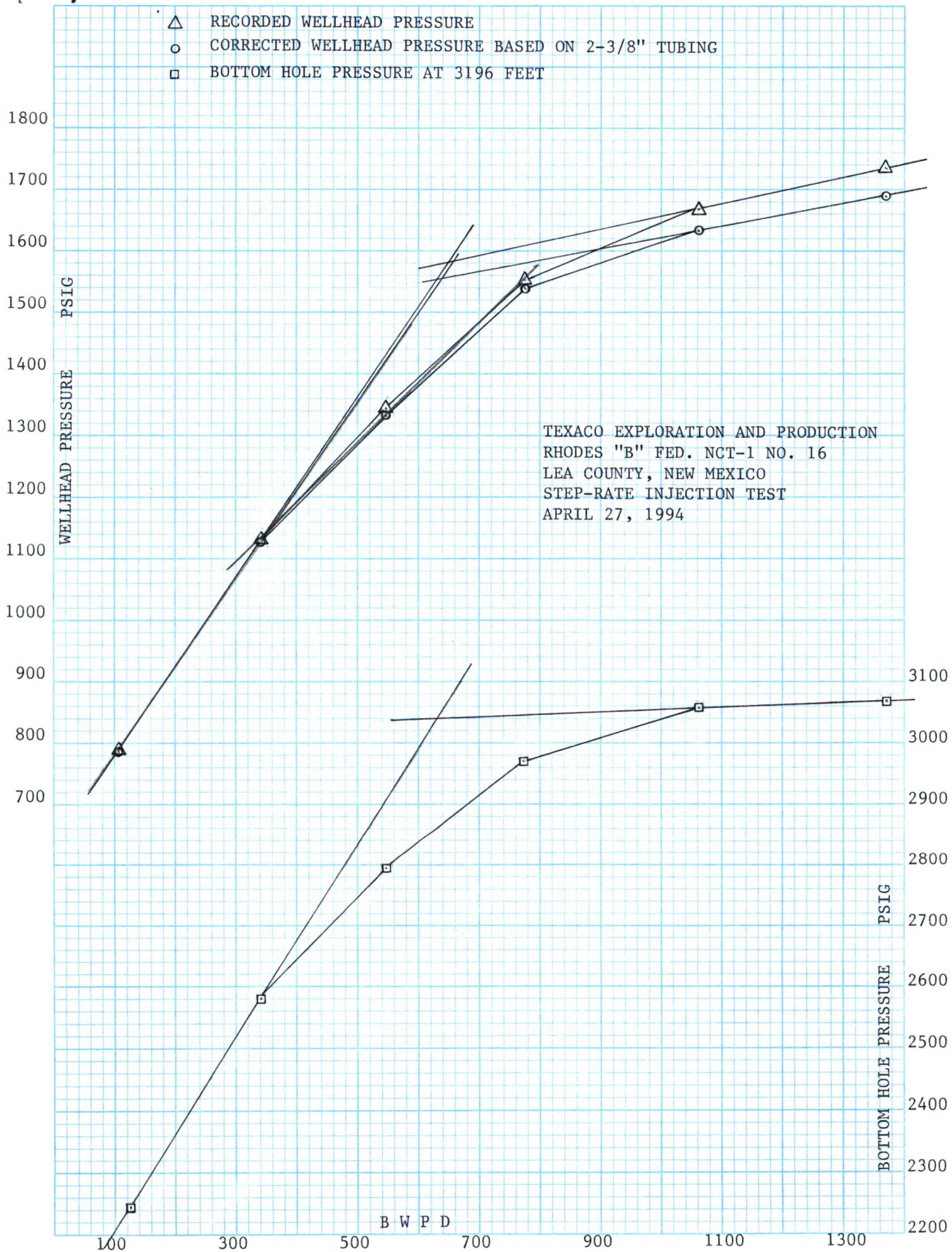
MID-PERFS. = 3130-3174

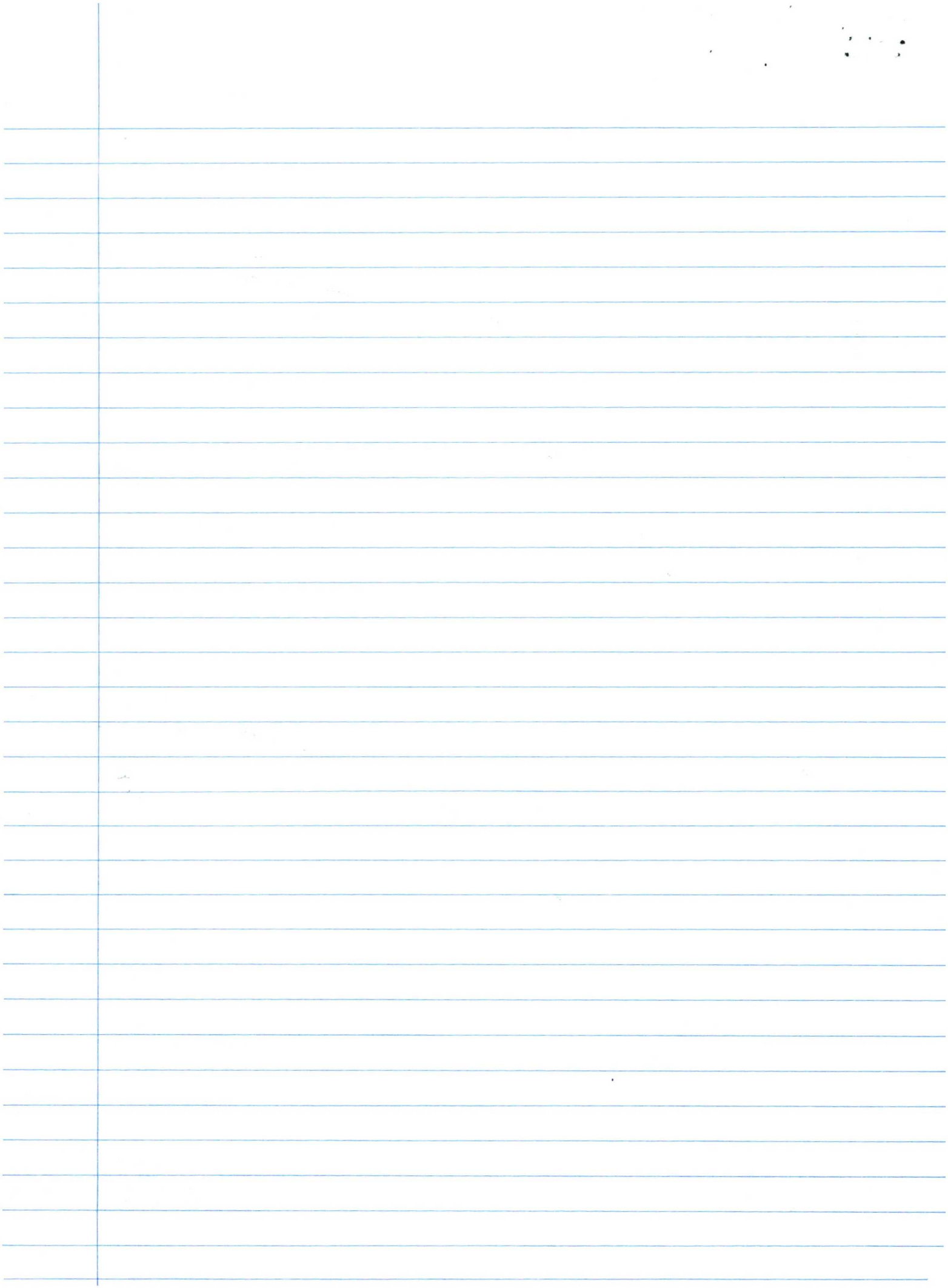
PACKER DEPTH = 3107

BHP GAUGE DEPTH = 3196

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbbls)	(3) INJECTION RATE (bbbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) - (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
1	8:45	112.5				112.5		1553.5
	8:50	587.4	0.5	144.0	0.765	586.6	4.20	2024.8
	8:55	602.6	0.8	86.4	0.297	602.3	2.52	2069.1
	9:00	690.6	1.2	115.2	0.506	690.1	3.36	2158.1
	9:05	774.7	1.8	172.8	1.071	773.6	5.04	2193.1
	9:10	764.3	2.2	115.2	0.506	763.8	3.36	2224.1
	9:15	784.7	2.6	115.2	0.506	784.2	3.36	2244.5
				124.8				
	9:20	1018.4	3.8	345.6	3.862	1014.5	10.08	2391.3
	9:25	992.7	5.1	374.4	4.478	988.2	10.92	2463.9
2	9:30	1097.5	6.3	345.6	3.862	1093.6	10.08	2507.9
	9:35	1162.7	7.5	345.6	3.862	1158.8	10.08	2542.2
	9:40	1217.7	8.6	316.8	3.288	1214.4	9.24	2562.6
	9:45	1131.8	9.7	316.8	3.288	1128.5	9.24	2579.7
				340.8				
	9:50	1218.8	11.7	576.0	9.936	1208.9	16.80	2666.6
	9:55	1290.4	13.6	547.2	9.037	1281.4	15.96	2705.6
	10:00	1322.3	15.5	547.2	9.037	1313.3	15.96	2737.3
	10:05	1304.2	17.4	547.2	9.037	1295.2	15.96	2756.0
	10:10	1359.2	19.2	518.4	8.177	1351.0	15.12	2772.2
3	10:15	1341.2	21.1	547.2	9.037	1332.2	15.96	2797.4
				547.2				
	10:20	1438.4	23.8	777.6	17.312	1421.1	22.68	2852.6
	10:25	1480.5	26.5	777.6	17.312	1463.2	22.68	2894.8
	10:30	1505.9	29.3	806.4	18.517	1487.4	23.52	2924.1
	10:35	1534.0	32.0	777.6	17.312	1516.7	22.68	2946.0
	10:40	1544.2	34.7	777.6	17.312	1526.9	22.68	2963.0
	10:45	1555.8	37.3	748.8	16.145	1539.7	21.84	2976.0
				777.6				

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)
5	10:50	1636.2	41.4	1180.8	37.495	1598.7	34.44	3020.6
	10:55	1652.7	44.8	979.2	26.519	1626.2	28.56	3034.4
	11:00	1639.8	48.5	1065.6	31.010	1608.8	31.08	3044.2
	11:05	1678.2	52.0	1008.0	27.980	1650.2	29.40	3050.7
	11:10	1680.8	55.7	1065.6	31.010	1649.8	31.08	3054.0
	11:15	1665.2	59.4	1065.6	31.010	1634.2	31.08	3058.9
				1060.8				
	11:20	1708.7	64.1	1353.6	48.273	1660.4	39.48	3101.1
	11:25	1730.4	68.9	1382.4	50.191	1680.2	40.32	3104.3
	11:30	1793.1	73.7	1382.4	50.191	1742.9	40.32	3096.3
6	11:35	1719.8	78.5	1382.4	50.191	1669.6	40.32	3085.7
	11:40	1721.2	83.2	1353.6	48.273	1672.9	39.48	3077.6
	11:45	1737.7	88.0	1382.4	50.191	1687.5	40.32	3069.5
				1372.8				
FALLOFF	11:46	1577.6				1577.6		3045.1
	11:47	1546.9				1546.9		3019.1
	11:48	1521.3				1521.3		2993.9
	11:49	1496.9				1496.9		2969.6
	11:50	1473.9				1473.9		2933.8
	11:55	1370.2				1370.2		2842.1
	12:00	1289.6				1289.6		2761.7
	12:05	1237.1				1237.1		2706.5
	12:10	1201.1				1201.1		2669.2
	12:15	1174.2				1174.2		2640.0







Texaco E & P

PO Box 2088
Santa Fe NM 87504
360 761 7111

April 28, 1994

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe N.M. 87504

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

810

Re: PRESSURE INCREASE ON INJECTION WELL
W.H. Rhodes "B" NCT-1 #14
Unit E, Section 26
T-26-S, R-37-E
Lea County, New Mexico

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on the above well from 600 psig to 840 psig. A step rate injection test was ran on the well. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,

Darlene de Aragao
Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments
cc: Jerry Sexton/NMOCD/Hobbs

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 15, 1994

WELL NAME: RHODES "B" FED. NCT-1 NO.14
LEA COUNTY, NEW MEXICO

WO#: 94-14-0660

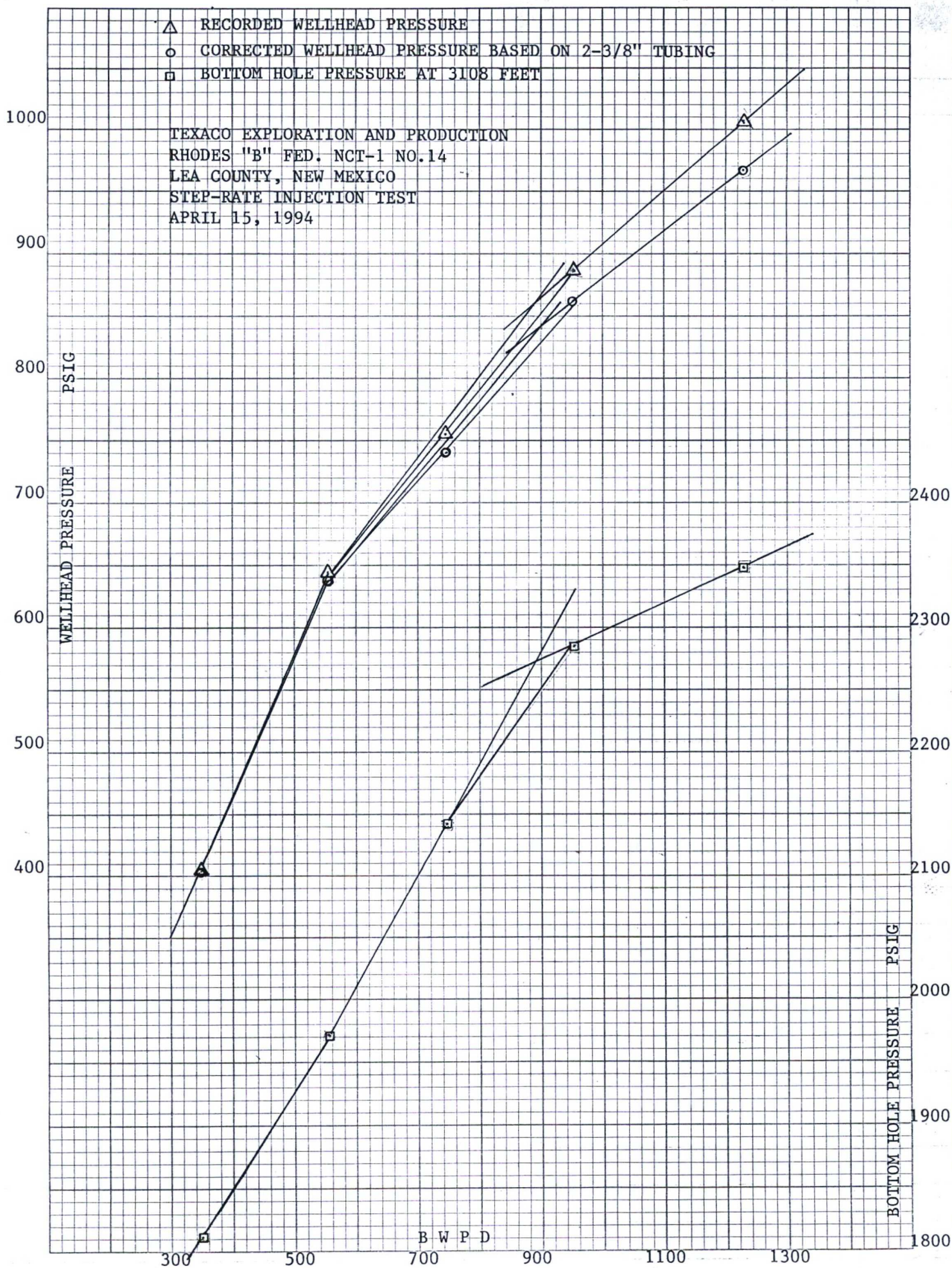
MID-PERFS. = 3095-3120

PACKER DEPTH = 3048

BHP GAUGE DEPTH = 3108

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)
1	8:35	31.0				31.0		1403.4
	8:40	308.9	1.5	432.0	5.675	303.2	12.60	1704.7
	8:45	362.5	2.7	345.6	3.756	358.7	10.08	1733.5
	8:50	357.3	3.9	345.6	3.756	353.5	10.08	1758.3
	8:55	382.8	5.0	316.8	3.197	379.6	9.24	1786.5
	9:00	416.0	6.1	316.8	3.197	412.8	9.24	1794.2
	9:05	404.6	7.3	345.6	3.756	400.8	10.08	1810.8
				350.4				
	9:10	566.9	9.2	547.2	8.788	558.1	15.96	1951.6
	9:15	610.3	11.1	547.2	8.788	601.5	15.96	1991.5
2	9:20	608.9	13.1	576.0	9.663	599.2	16.80	1989.5
	9:25	628.0	15.1	576.0	9.663	618.3	16.80	2005.4
	9:30	645.9	17.0	547.2	8.788	637.1	15.96	2012.2
	9:35	644.5	18.9	547.2	8.788	635.7	15.96	2020.5
				556.8				
	9:40	740.3	21.6	777.6	16.835	723.5	22.68	2096.2
	9:45	722.3	24.2	748.8	15.700	706.6	21.84	2110.1
	9:50	732.2	26.8	748.8	15.700	716.5	21.84	2120.7
	9:55	742.2	29.3	720.0	14.601	727.6	21.00	2128.7
	10:00	736.8	31.9	748.8	15.700	721.1	21.84	2134.3
3	10:05	754.6	34.4	720.0	14.601	740.0	21.00	2141.5
				744.0				
	10:10	843.8	37.8	979.2	25.789	818.0	28.56	2208.4
	10:15	855.0	41.1	950.4	24.404	830.6	27.72	2220.6
	10:20	863.9	44.4	950.4	24.404	839.5	27.72	2229.4
	10:25	872.7	47.7	950.4	24.404	848.3	27.72	2238.5
	10:30	882.7	51.0	950.4	24.404	858.3	27.72	2245.2
	10:35	887.8	54.3	950.4	24.404	863.4	27.72	2285.9
				955.2				

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)
5	10:40	983.6	58.7	1267.2	41.552	942.0	36.96	2311.9
	10:45	993.6	62.9	1209.6	38.125	955.5	35.28	2322.3
	10:50	1004.9	67.2	1238.4	39.822	965.1	36.12	2331.0
	10:55	1013.8	71.4	1209.6	38.125	975.7	35.28	2337.3
	11:00	1007.3	75.6	1209.6	38.125	969.2	35.28	2343.7
	11:05	1007.3	79.9	1238.4	39.822	967.5	36.12	2349.3
				1228.8				
	FALLOFF 11:06	712.0				712.0		2127.0
	11:07	636.6				636.6		2052.7
	11:08	585.5				585.5		2001.8
	11:09	548.4				548.4		1964.8
	11:10	517.7				517.7		1933.6
	11:15	416.7				416.7		1832.5
	11:20	356.4				356.4		1771.7
	11:25	314.1				314.1		1730.6
	11:30	283.4				283.4		1699.4
	11:35	259.1				259.1		1674.7





Texaco E & P

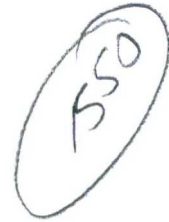
PO Box 170
Hobbs NM 88401-0170
505-408-7141

April 28, 1994

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe N.M. 87504

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

Re: PRESSURE INCREASE ON INJECTION WELL
W.H. Rhodes "B" NCT-1 #13
Unit O, Section 27
T-26-S, R-37-E
Lea County, New Mexico

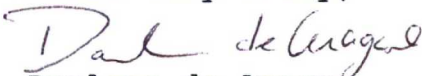


Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on the above well from 1110 psig to 1550 psig. A step rate injection test was ran on the well. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,


Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments
cc: Jerry Sexton/NMOCD/Hobbs

Case 10572

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 14, 1994

WELL NAME: RHODES "B" FED. NCT-1 NO.13
LEA COUNTY, NEW MEXICO

WO#: 94-14-0659

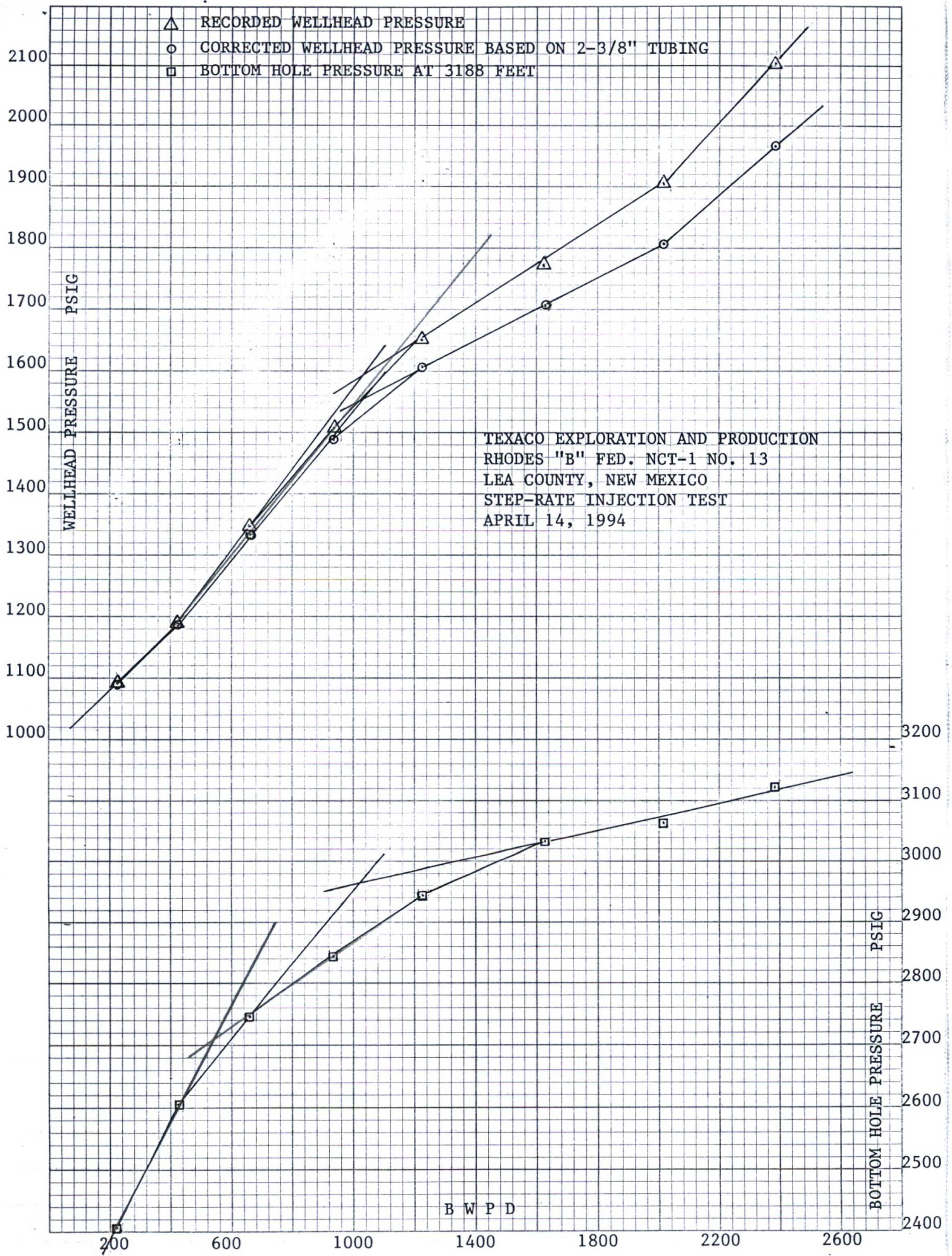
MID-PERFS. = 3050-3327

PACKER DEPTH = 3088

BHP GAUGE DEPTH = 3188

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)
1	8:35	702.7				702.7		1949.7
	8:40	1025.8	0.9	259.2	2.262	1023.5	7.56	2264.0
	8:45	1085.8	1.7	230.4	1.820	1084.0	6.72	2322.9
	8:50	1094.5	2.4	201.6	1.421	1093.1	5.88	2349.5
	8:55	1098.2	3.2	230.4	1.820	1096.4	6.72	2370.9
	9:00	1109.7	4.0	230.4	1.820	1107.9	6.72	2390.1
	9:05	1092.9	4.7	201.6	1.421	1091.5	5.88	2406.5
				225.6				
	9:10	1177.2	6.3	460.8	6.559	1170.6	13.44	2535.6
	9:15	1169.3	7.7	403.2	5.124	1164.2	11.76	2558.7
2	9:20	1128.1	9.2	432.0	5.821	1122.3	12.60	2580.2
	9:25	1125.2	10.8	460.8	6.559	1118.6	13.44	2593.2
	9:30	1150.5	12.2	403.2	5.124	1145.4	11.76	2601.9
	9:35	1188.6	13.7	432.0	5.821	1182.8	12.60	2608.0
				432.0				
	9:40	1262.5	16.0	662.4	12.836	1249.7	19.32	2692.1
	9:45	1263.5	18.3	662.4	12.836	1250.7	19.32	2708.9
	9:50	1303.4	20.5	633.6	11.823	1291.6	18.48	2720.9
	9:55	1338.4	22.9	691.2	13.888	1324.5	20.16	2735.3
	10:00	1320.2	25.2	662.4	12.836	1307.4	19.32	2742.2
3	10:05	1348.2	27.5	662.4	12.836	1335.4	19.32	2745.7
				662.4				
	10:10	1432.7	30.8	936.0	24.335	1408.4	27.30	2815.1
	10:15	1437.8	34.0	936.0	24.335	1413.5	27.30	2821.2
	10:20	1431.0	37.2	921.6	23.646	1407.4	26.88	2832.1
	10:25	1453.9	40.5	950.4	25.032	1428.9	27.72	2837.1
	10:30	1498.6	43.8	950.4	25.032	1473.6	27.72	2841.2
	10:35	1508.7	47.0	921.6	23.646	1485.1	26.88	2842.9
				936.0				

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)
5	10:40	1634.2	51.4	1267.2	42.621	1591.6	36.96	2921.0
	10:45	1662.6	55.7	1238.4	40.847	1621.8	36.12	2945.6
	10:50	1672.8	60.0	1224.0	39.972	1632.8	35.70	2940.8
	10:55	1675.4	64.2	1224.0	39.972	1635.4	35.70	2944.8
	11:00	1655.3	68.5	1238.4	40.847	1614.5	36.12	2942.3
6	11:05	1649.1	72.7	1209.6	39.107	1610.0	35.28	2942.3
				1233.6				
	11:10	1819.2	78.4	1641.6	68.803	1750.4	47.88	2997.6
	11:15	1810.9	84.1	1641.6	68.803	1742.1	47.88	3013.8
	11:20	1801.5	90.0	1699.2	73.336	1728.2	49.56	3041.2
7	11:25	1752.4	95.4	1555.2	62.254	1690.1	45.36	3024.0
	11:30	1773.8	101.1	1641.6	68.803	1705.0	47.88	3031.9
	11:35	1773.4	106.8	1641.6	68.803	1704.6	47.88	3034.1
				1636.8				
	11:40	1896.1	113.8	2016.0	100.617		58.80	3072.8
8	11:45	1931.8	121.0	2073.6	106.000	1825.8	60.48	3086.1
	11:50	1903.4	127.7	1929.6	92.785	1810.6	56.28	3077.5
	11:55	1908.5	134.8	2044.8	103.292	1805.2	59.64	3073.0
	12:00	1907.3	141.8	2016.0	100.617	1806.7	58.80	3062.9
	12:05	1903.2	148.7	1987.2	97.974	1805.2	57.96	3063.5
FALLOFF				2011.2				
	12:10	2065.7	157.1	2419.2	140.979	1924.7	70.56	3114.3
	12:15	2095.1	165.4	2390.4	137.890	1957.2	69.72	3130.0
	12:20	2085.9	173.7	2390.4	137.890	1948.0	69.72	3131.6
	12:25	2090.0	182.0	2390.4	137.890	1952.1	69.72	3129.7
	12:30	2097.1	190.2	2361.6	134.833	1962.3	68.88	3135.8
	12:35	2103.0	198.5	2390.4	137.890	1965.1	69.72	3122.5
				2390.4				
	12:36	1475.6				1475.6		2896.7
	12:37	1392.5				1392.5		2807.4
	12:38	1347.8				1347.8		2762.7
	12:39	1323.6				1323.6		2737.6
	12:40	1307.0				1307.0		2720.6
	12:45	1256.0				1256.0		2666.2
	12:50	1221.6				1221.6		2628.9
	12:55	1194.5				1194.5		2594.7
	1:00	1169.8				1169.8		2574.4
	1:05	1149.3				1149.3		2551.6





Texaco E & P

PO Box 750

Hobbs, NM 88241-0750

505 744 7700

OIL CONSERVATION DIVISION
RECEIVED

APR 29 1994

April 28, 1994

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe N.M. 87504

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

Re: PRESSURE INCREASE ON INJECTION WELL
W.H. Rhodes "B" NCT-1 #1
Unit G, Section 27
T-26-S, R-37-E
Lea County, New Mexico

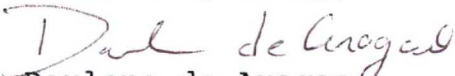
910

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on the above well from 600 psig to 1360 psig. A step rate injection test was ran on the well. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,


Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments
cc: Jerry Sexton/NMOCD/Hobbs

WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 13, 1994

WELL NAME: W.H. RHODES "B" FED. NCT-1 NO.1
LEA COUNTY, NEW MEXICO

WO#: 94-14-0658

MID-PERFS. = 3043-3058

PACKER DEPTH = 3009

BHP GAUGE DEPTH = 3050

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)
1	8:40	130.7				130.7		1386.6
	8:45	389.6	1.5	432.0	5.569	384.0	12.60	1636.8
	8:50	452.1	2.8	374.4	4.274	447.8	10.92	1686.8
	8:55	478.1	3.8	288.0	2.630	475.5	8.40	1708.9
	9:00	504.2	4.8	288.0	2.630	501.6	8.40	1732.0
	9:05	518.1	6.0	345.6	3.686	514.4	10.08	1746.1
	9:10	528.3	7.1	316.8	3.138	525.2	9.24	1761.8
				340.8				
	9:15	592.1	8.9	518.4	7.803	584.3	15.12	1869.6
	9:20	595.8	10.6	489.6	7.020	588.8	14.28	1914.7
2	9:25	609.8	12.4	518.4	7.803	602.0	15.12	1947.7
	9:30	655.8	14.1	489.6	7.020	648.8	14.28	1965.1
	9:35	631.4	15.9	518.4	7.803	623.6	15.12	1977.7
	9:40	626.1	17.7	518.4	7.803	618.3	15.12	1988.6
				508.8				
	9:45	721.8	19.9	633.6	11.311	710.5	18.48	2078.3
	9:50	742.2	22.2	662.4	12.281	729.9	19.32	2109.6
	9:55	765.0	24.5	662.4	12.281	752.7	19.32	2130.2
	10:00	758.4	26.7	633.6	11.311	747.1	18.48	2145.9
	10:05	794.0	29.0	662.4	12.281	781.7	19.32	2159.9
3	10:10	788.7	31.2	633.6	11.311	777.4	18.48	2169.8
				648.0				
	10:15	913.8	34.4	921.6	22.623	891.2	26.88	2281.8
	10:20	944.4	37.3	835.2	18.856	925.5	24.36	2310.6
	10:25	957.2	40.2	835.2	18.856	938.3	24.36	2329.5
	10:30	978.7	43.3	892.8	21.332	957.4	26.04	2354.2
	10:35	1001.6	46.2	835.2	18.856	982.7	24.36	2372.2
	10:40	1019.2	49.2	864.0	20.077	999.1	25.20	2383.7
				864.0				

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)
5	10:45	1174.0	53.5	1238.4	39.078	1134.9	36.12	2515.3
	10:50	1216.1	57.9	1267.2	40.776	1175.3	36.96	2554.6
	10:55	1227.3	61.9	1152.0	34.185	1193.1	33.60	2575.9
	11:00	1263.8	66.2	1238.4	39.078	1224.7	36.12	2597.1
	11:05	1270.7	70.5	1238.4	39.078	1231.6	36.12	2611.7
	11:10	1279.1	74.7	1209.6	37.414	1241.7	35.28	2619.7
				1224.0				
	11:15	1390.0	80.5	1670.4	67.977	1322.0	48.72	2700.2
	11:20	1422.8	86.1	1612.8	63.704	1359.1	47.04	2722.0
	11:25	1427.4	91.8	1641.6	65.825	1361.6	47.88	2731.5
6	11:30	1451.4	97.4	1612.8	63.704	1387.7	47.04	2734.6
	11:35	1470.6	103.2	1670.4	67.977	1402.6	48.72	2739.3
	11:40	1536.7	108.6	1555.2	59.559	1477.1	45.36	2768.5
				1627.2				
	11:45	1577.4	115.6	2016.0	96.261	1481.1	58.80	2801.1
	11:50	1600.0	122.6	2016.0	96.261	1503.7	58.80	2814.9
	11:55	1607.4	129.5	1987.2	93.733	1513.7	57.96	2822.2
	12:00	1609.7	136.6	2044.8	98.821	1510.9	59.64	2828.0
	12:05	1628.7	143.4	1958.4	91.235	1537.5	57.12	2841.0
	12:10	1637.6	150.4	2016.0	96.261	1541.3	58.80	2855.7
7 FALLOFF				2006.4				
	12:11	1387.9				1387.9		2740.3
	12:12	1396.8				1396.8		2710.2
	12:13	1372.4				1372.4		2686.6
	12:14	1351.8				1351.8		2666.3
	12:15	1332.6				1332.6		2646.0
	12:20	1239.1				1239.1		2549.7
	12:25	1142.9				1142.9		2451.7
	12:30	1044.4				1044.4		2352.8
	12:35	953.4				953.4		2260.5
	12:40	871.3				871.3		2177.9

