



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 3, 1994

Texaco Exploration & Production, Inc.
P.O. Box 730
Hobbs, New Mexico 88241-0730

Attn: Ms. Darlene de Aragao

**RE: Injection Pressure Increase West Dollarhide Drinkard Unit
Waterflood Project Lea County, New Mexico**

CF 4134
R-3768
WFX-608
PDEV0020600608
621
PDEV0020600621
630
PDEV0020600630
654
PDEV0020600654

Dear Ms. de Aragao:

Reference is made to your request dated September 30, 1994 to increase the surface injection pressure on 12 wells. This request is based on step rate tests conducted on these wells between August 11 and September 1, 1994. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells, with the exception of WDDU No.21, is justified at this time.

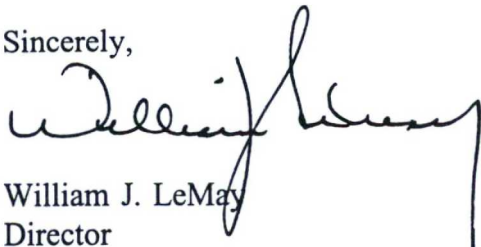
You are therefore authorized to increase the surface injection pressure on the following wells:

Well and Location	Maximum Injection Surface Pressure
West Dollarhide Drinkard Unit Well No.146 Unit C, Section 32, Township 24 South, Range 38 East	1350 PSIG
West Dollarhide Drinkard Unit Well No.58 Unit K, Section 33, Township 24 South, Range 38 East	1666 PSIG
West Dollarhide Drinkard Unit Well No.46 Unit A, Section 31, Township 24 South, Range 38 East	1383 PSIG
West Dollarhide Drinkard Unit Well No.88 Unit A, Section 5, Township 25 South, Range 38 East	1299 PSIG

Well and Location	Maximum Injection Surface Pressure
West Dollarhide Drinkard Unit Well No.131 Unit H, Section 32, Township 24 South, Range 38 East	1538 PSIG
West Dollarhide Drinkard Unit Well No.64 Unit I, Section 31, Township 24 South, Range 38 East	1442 PSIG
West Dollarhide Drinkard Unit Well No.17 Unit C, Section 30, Township 24 South, Range 38 East	1322 PSIG
West Dollarhide Drinkard Unit Well No.19 Unit G, Section 30, Township 24 South, Range 38 East	1582 PSIG
West Dollarhide Drinkard Unit Well No.28 Unit I, Section 30, Township 24 South, Range 38 East	1542 PSIG
West Dollarhide Drinkard Unit Well No.121 Unit E, Section 32, Township 24 South, Range 38 East	1701 PSIG
West Dollarhide Drinkard Unit Well No.56 Unit E, Section 33, Township 24 South, Range 38 East	1413 PSIG
West Dollarhide Drinkard Unit Well No.21 Unit E, Section 29, Township 24 South, Range 38 East	1326 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/BES

cc: Oil Conservation Division - Hobbs
File: Case No.4134; WFX's-608,621,630,654



Texaco E & P

PO Box 777
Hobbs NM 88241-0777
505 766 7191

NEW MEXICO OIL CONSERVATION DIVISION

RECEIVED

SEP 30 1994

September 30, 1994

New Mexico Oil Conservation Division
PO Box 2088
Santa Fe NM 87504

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

Re: PRESSURE INCREASE ON INJECTION WELLS
West Dollarhide Drinkard Unit
T-24-S, R-38-E
Lea County, New Mexico

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on twelve wells on the West Dollarhide Drinkard unit. A step rate injection test was run on each well. Results of the test are attached. The attached table shows the present maximum allowable pressures along with the requested allowable pressures. We are also requesting that our maximum allowable surface pressures include friction which is also included in the table.

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

WELL NAME	PRESENT MAXIMUM ALLOWABLE SURFACE PRESSURE	BHFP	STFP	FRICTION *	REQUESTED MAXIMUM ALLOWABLE SURFACE PRESSURE
WDDU 146 C 32 24 38	1300	4235	1366	34	1400 - 1350
WDDU 58 K 33 24 38	1300	4540	1682	34	1716 1666
WDDU 46 A 31 24 38	1284	4235	1400	33	1433 1383
WDDU 88 A 5 25 38	1279	4140	1316	33	1349 1299
WDDU 131 H 32 24 38	1300	4430	1554	34	1588 1538
WDDU 64 L 31 24 38	1300	4260	1459	33	1492 1442
WDDU 17 C 30 24 38	1323	4280	1337	35	1372 1322
WDDU 19 G 30 24 38	1302	4500	1598	34	1632 1582
WDDU 28 I 30 24 38	1300	4460	1558	34	1592 1542
WDDU 121 E 32 24 38	1470	4575	1717	34	1751 1701
WDDU 56 E 33 24 38	1279	4320	1429	34	1463 1413
WDDU 21 E 29 24 38	1326	4260	1341	35	1376 1326

BHFP=BOTTOM HOLE FRAC PRESSURE

STFP=SURFACE TREATING FRAC
PRESSURE

FLUID GRADIENT=.450

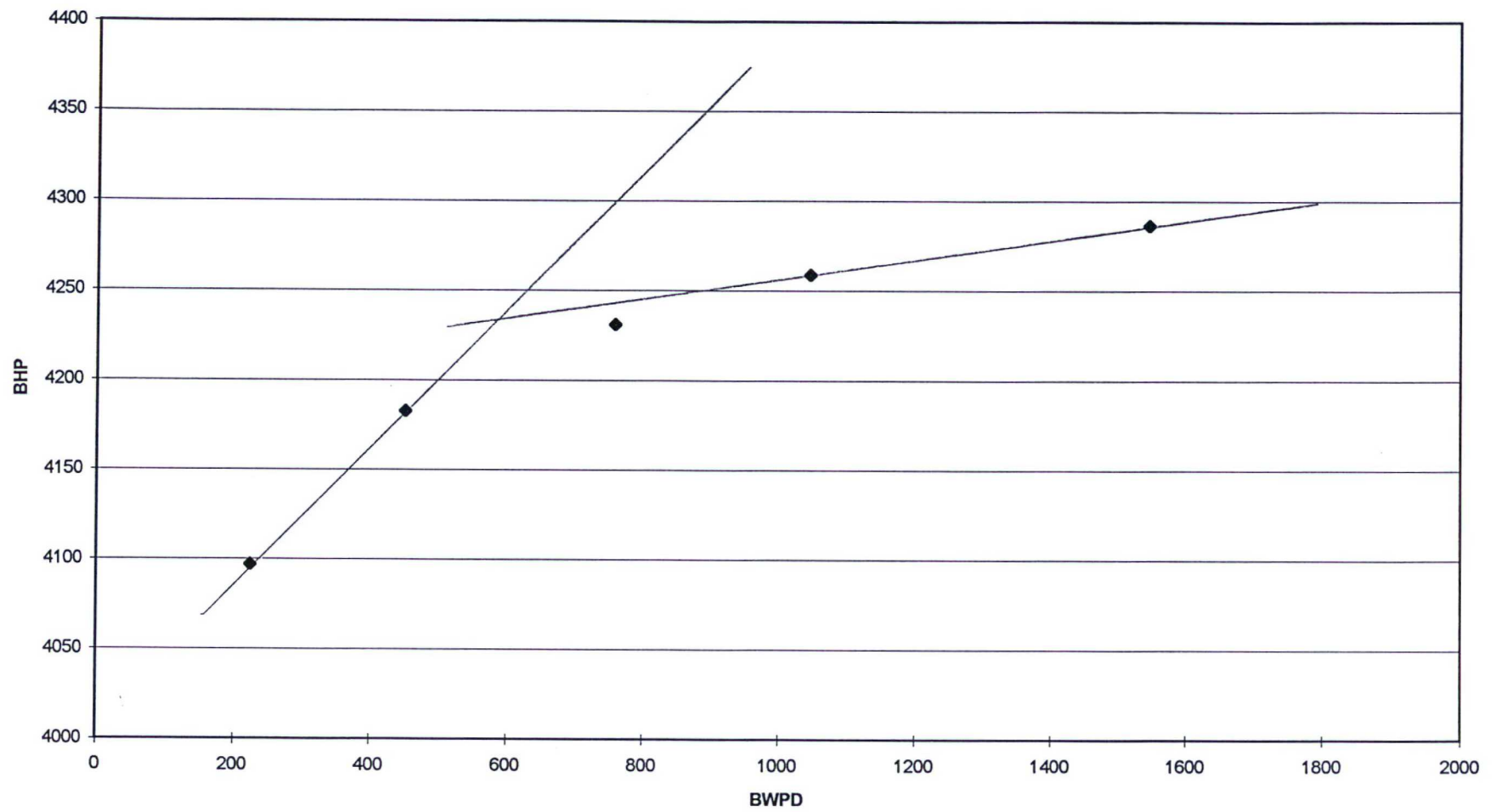
DBG=DEPTH OF BOTTOM HOLE GAGE

STFP=BHFP-(.450xDBG)

*FRICTION PRESSURE CALCULATED
@ 500 BWPD

R-3768 CASE 4134
WFX 608
621
654
630

WEST DOLLARHIDE DRINKARD UNIT #146



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 19, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 146
LEA COUNTY, NEW MEXICO

WO#: 94-14-1412

PERFS = 6495-6659

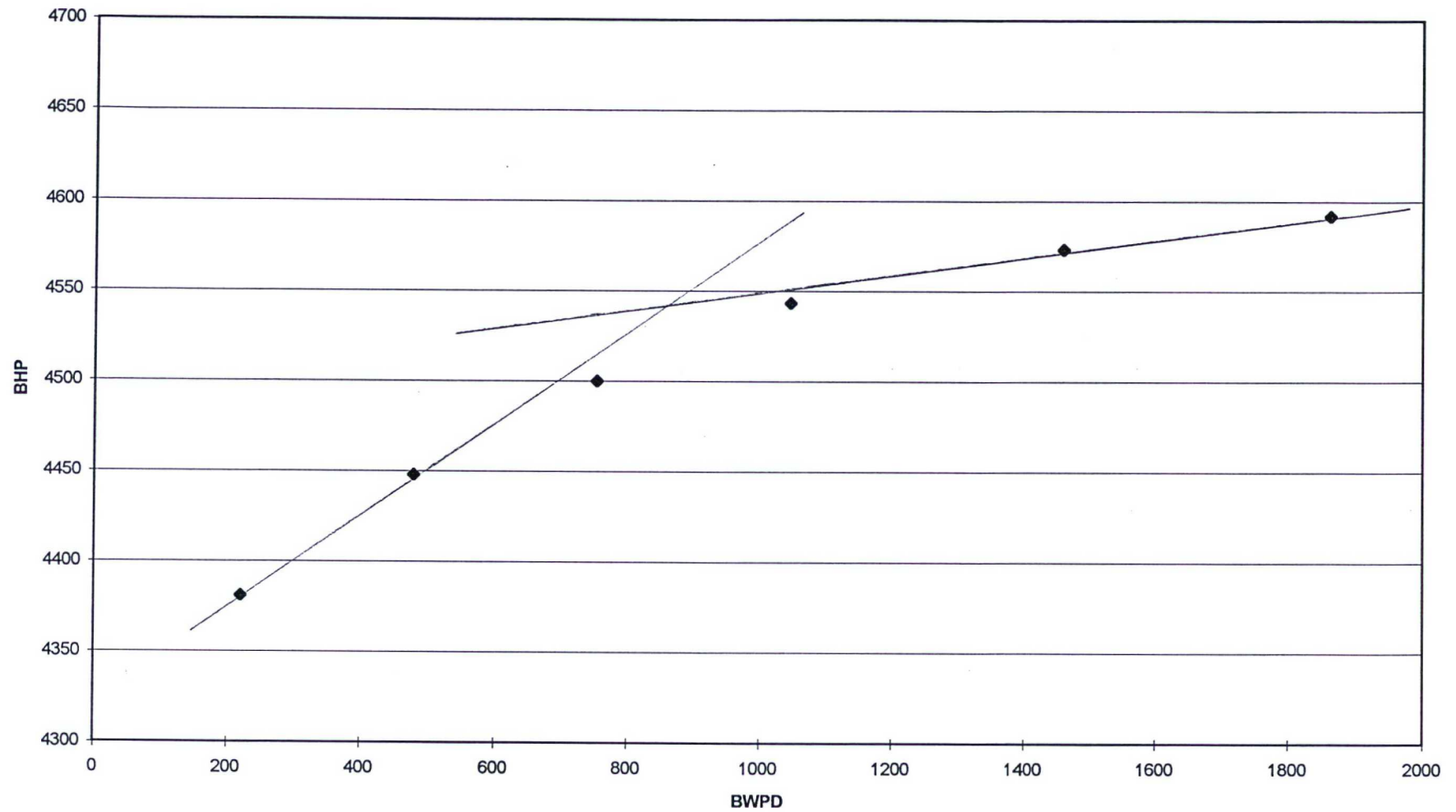
PACKER DEPTH = 6452

BHP GAUGE DEPTH = 6375

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	10:10	968.7				968.7		3852.8
	10:15	1106.8	0.8	230.4	3.202	1103.6	6.72	3977.1
	10:20	1158.2	1.6	230.4	3.202	1155.0	6.72	4017.0
	10:25	1149.9	2.4	230.4	3.202	1146.7	6.72	4040.7
	10:30	1175.6	3.1	201.6	2.502	1173.1	5.88	4058.1
	10:35	1198.4	3.9	230.4	3.202	1195.2	6.72	4074.2
	10:40	1209.8	4.7	230.4	3.202	1206.6	6.72	4096.9
				225.6				
	10:45	1251.1	6.3	460.8	11.545	1239.6	13.44	4127.9
	10:50	1269.5	7.9	460.8	11.545	1258.0	13.44	4143.8
2	10:55	1279.5	9.4	432.0	10.246	1269.3	12.60	4157.2
	11:00	1293.7	11.0	460.8	11.545	1282.2	13.44	4165.7
	11:05	1300.7	12.5	432.0	10.246	1290.5	12.60	4176.6
	11:10	1310.7	14.1	460.8	11.545	1299.2	13.44	4182.6
				451.2				
	11:15	1346.2	16.8	777.6	30.394	1315.8	22.68	4207.5
	11:20	1381.7	19.4	748.8	28.345	1353.4	21.84	4214.8
	11:25	1360.4	22.0	748.8	28.345	1332.1	21.84	4223.6
	11:30	1394.5	24.6	748.8	28.345	1366.2	21.84	4228.2
	11:35	1391.6	27.3	777.6	30.394	1361.2	22.68	4228.9
3	11:40	1401.6	29.9	748.8	28.345	1373.3	21.84	4231.0
				758.4				
	11:45	1448.5	33.5	1036.8	51.752	1396.7	30.24	4247.1
	11:50	1464.1	37.2	1065.6	54.443	1409.7	31.08	4251.3
	11:55	1465.5	40.8	1036.8	51.752	1413.7	30.24	4252.9
	12:00	1484.0	44.5	1065.6	54.443	1429.6	31.08	4254.4
	12:05	1496.8	48.1	1036.8	51.752	1445.0	30.24	4255.8
	12:10	1501.1	51.7	1036.8	51.752	1449.3	30.24	4258.9
				1046.4				

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)
5 FALLOFF	12:15	1590.7	57.1	1555.2	109.572	1481.1	45.36	4272.1
	12:20	1603.4	62.5	1555.2	109.572	1493.8	45.36	4275.7
	12:25	1620.0	67.8	1526.4	105.847	1514.2	44.52	4280.5
	12:30	1640.0	73.1	1526.4	105.847	1534.2	44.52	4283.5
	12:35	1660.0	78.5	1555.2	109.572	1550.4	45.36	4286.6
	12:40	1660.0	83.9	1555.2	109.572	1550.4	45.36	4286.6
				1545.6				
	12:41	1520.0				1520.0		4250.0
	12:42	1515.0				1515.0		4248.4
	12:43	1510.0				1510.0		4247.6
	12:44	1510.0				1510.0		4246.9
	12:45	1510.0				1510.0		4243.8
	12:50	1500.0				1500.0		4242.2
	12:55	1500.0				1500.0		4240.8

WEST DOLLARHIDE DRINKARD UNIT #58



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 12, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 58
LEA COUNTY, NEW MEXICO

WO#: 94-14-1236

PERFS = 6442-6650

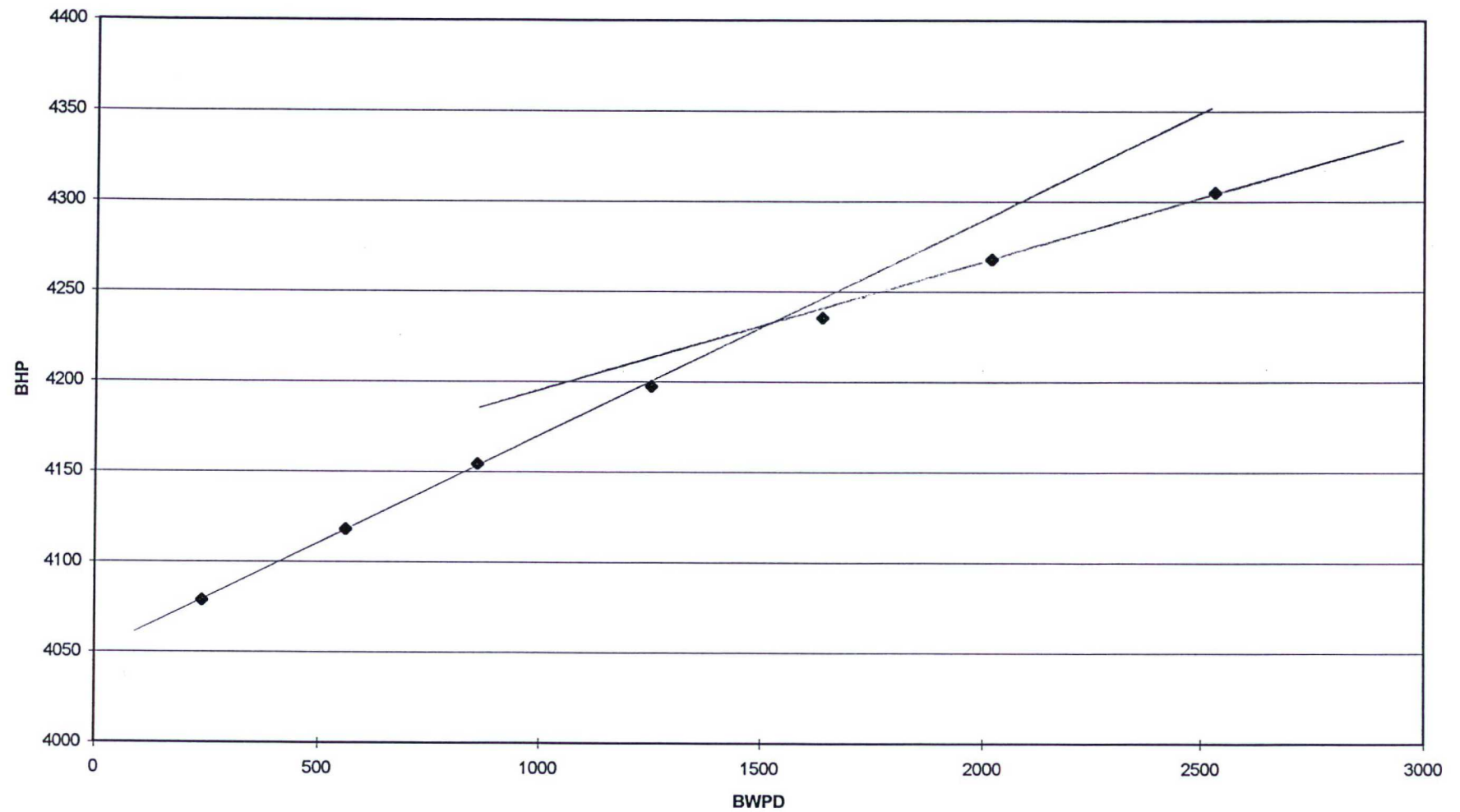
PACKER DEPTH = 6384

BHP GAUGE DEPTH = 6350

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	9:50	1505.2				1505.2		4334.6
	9:55	1535.1	0.8	230.4	3.190	1531.9	6.72	4349.6
	10:00	1542.3	1.5	201.6	2.492	1539.8	5.88	4356.7
	10:05	1549.4	2.3	230.4	3.190	1546.2	6.72	4363.1
	10:10	1555.2	3.1	230.4	3.190	1552.0	6.72	4367.9
	10:15	1549.5	3.8	201.6	2.492	1547.0	5.88	4376.1
	10:20	1562.3	4.6	230.4	3.190	1559.1	6.72	4380.9
				220.8				
	10:25	1590.8	6.3	489.6	12.865	1577.9	14.28	4399.7
	10:30	1600.8	7.9	460.8	11.500	1589.3	13.44	4411.5
2	10:35	1600.8	9.6	489.6	12.865	1587.9	14.28	4421.0
	10:40	1605.1	11.3	489.6	12.865	1592.2	14.28	4428.3
	10:45	1610.9	12.9	460.8	11.500	1599.4	13.44	4435.0
	10:50	1606.7	14.6	489.6	12.865	1593.8	14.28	4447.8
				480.0				
	10:55	1572.6	17.2	748.8	28.233	1544.4	21.84	4464.7
	11:00	1527.0	19.9	777.6	30.275	1496.7	22.68	4469.3
	11:05	1529.9	22.5	748.8	28.233	1501.7	21.84	4478.2
	11:10	1544.1	25.1	748.8	28.233	1515.9	21.84	4488.4
	11:15	1556.9	27.7	748.8	28.233	1528.7	21.84	4495.3
3	11:20	1554.0	30.3	748.8	28.233	1525.8	21.84	4500.1
				753.6				
	11:25	1619.4	33.9	1036.8	51.549	1567.9	30.24	4516.7
	11:30	1630.8	37.6	1065.6	54.230	1576.6	31.08	4525.1
	11:35	1633.6	41.2	1036.8	51.549	1582.1	30.24	4531.7
	11:40	1637.8	44.9	1065.6	54.230	1583.6	31.08	4536.5
	11:45	1639.2	48.5	1036.8	51.549	1587.7	30.24	4540.5
	11:50	1642.1	52.1	1036.8	51.549	1590.6	30.24	4543.5
				1046.4				

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)
5	11:55	1751.6	57.2	1468.8	98.190	1653.4	42.84	4557.2
	12:00	1750.2	62.2	1440.0	94.658	1655.5	42.00	4561.9
	12:05	1754.5	67.3	1468.8	98.190	1656.3	42.84	4565.1
	12:10	1755.9	72.4	1468.8	98.190	1657.7	42.84	4569.3
	12:15	1757.3	77.4	1440.0	94.658	1662.6	42.00	4571.2
	12:20	1748.7	82.5	1468.8	98.190	1650.5	42.84	4573.1
				1459.2				
	12:25	1892.4	88.9	1843.2	149.450	1743.0	53.76	4580.7
	12:30	1893.8	95.4	1872.0	153.799	1740.0	54.60	4587.2
	12:35	1889.5	101.8	1843.2	149.450	1740.1	53.76	4586.0
	12:40	1888.1	108.4	1900.8	158.205	1729.9	55.44	4589.1
	12:45	1885.2	114.8	1843.2	149.450	1735.8	53.76	4589.1
	12:50	1890.9	121.3	1872.0	153.799	1737.1	54.60	4591.8
				1862.4				
FALLOFF	12:51	1521.1				1521.1		4576.4
	12:52	1518.2				1518.2		4574.1
	12:53	1516.8				1516.8		4571.1
	12:54	1516.8				1516.8		4567.7
	12:55	1515.4				1515.4		4565.6
	1:00	1512.6				1512.6		4553.3
	1:05	1511.2				1511.2		4543.4

WEST DOLLARHIDE DRINKARD UNIT #46



WEST - TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 18, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 46
LEA COUNTY, NEW MEXICO

WO#: 94-14-1411

PERFS = 6418-6499

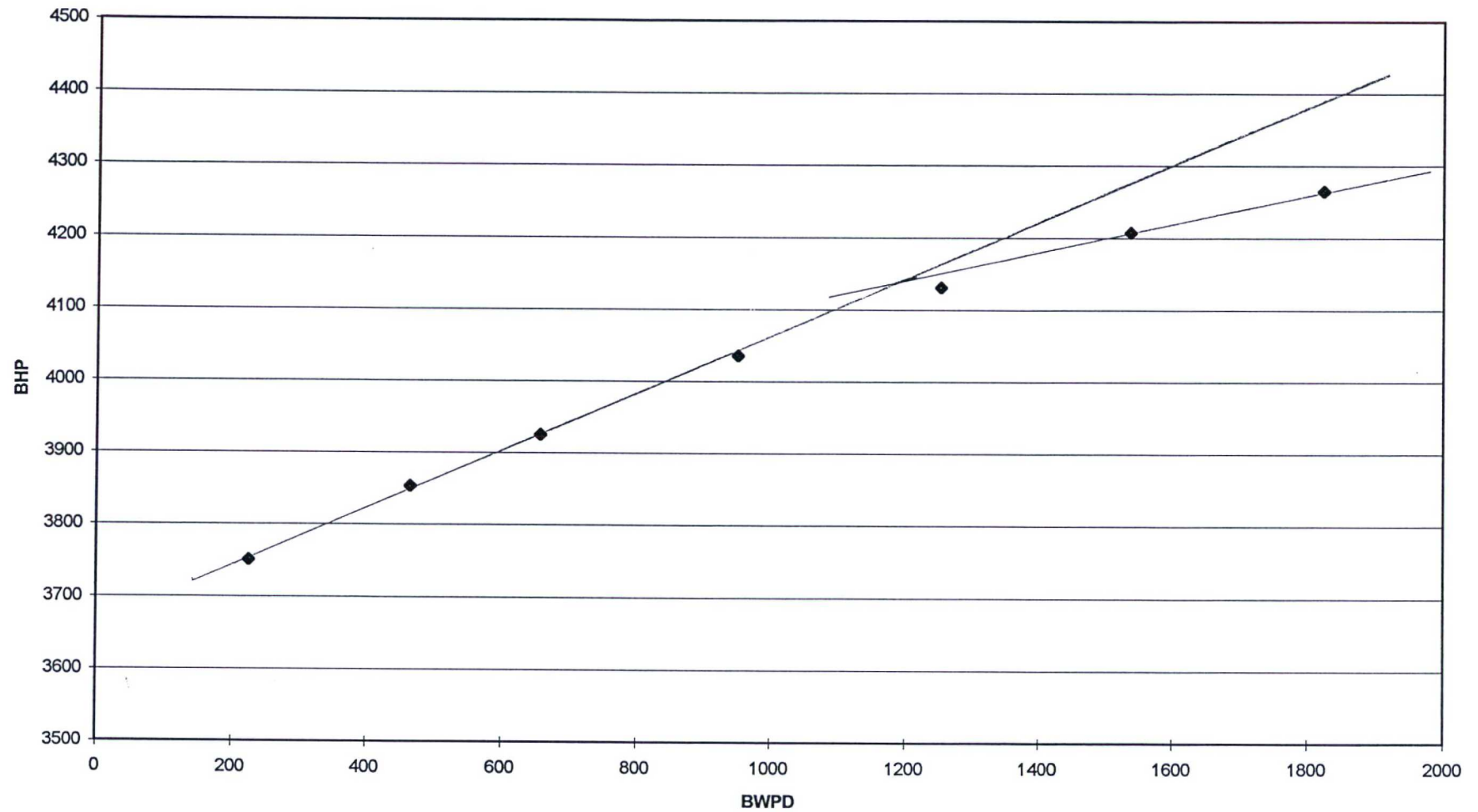
PACKER DEPTH = 6378

BHP GAUGE DEPTH = 6300

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	9:15	1218.0				1218.0		4048.3
	9:20	1259.5	0.8	230.4	3.165	1256.3	6.72	4057.4
	9:25	1249.5	1.7	259.2	3.935	1245.6	7.56	4065.8
	9:30	1245.2	2.5	230.4	3.165	1242.0	6.72	4071.4
	9:35	1253.7	3.4	259.2	3.935	1249.8	7.56	4074.8
	9:40	1248.0	4.2	230.4	3.165	1244.8	6.72	4076.7
	9:45	1283.5	5.0	230.4	3.165	1280.3	6.72	4078.5
				240.0				
	9:50	1306.2	6.9	547.2	15.679	1290.5	15.96	4090.6
	9:55	1316.1	8.9	576.0	17.240	1298.9	16.80	4096.5
2	10:00	1314.7	10.9	576.0	17.240	1297.5	16.80	4103.0
	10:05	1321.8	12.8	547.2	15.679	1306.1	15.96	4109.4
	10:10	1330.3	14.8	576.0	17.240	1313.1	16.80	4110.1
	10:15	1327.4	16.7	547.2	15.679	1311.7	15.96	4117.8
				561.6				
	10:20	1419.9	19.8	892.8	38.784	1381.1	26.04	4126.0
	10:25	1424.1	22.8	864.0	36.501	1387.6	25.20	4135.2
	10:30	1442.6	25.8	864.0	36.501	1406.1	25.20	4139.4
	10:35	1466.8	28.7	835.2	34.282	1432.5	24.36	4146.6
	10:40	1482.4	31.6	835.2	34.282	1448.1	24.36	4150.5
3	10:45	1500.9	34.6	864.0	36.501	1464.4	25.20	4154.2
				859.2				
	10:50	1640.2	39.2	1324.8	80.488	1559.7	38.64	4168.9
	10:55	1653.0	43.3	1180.8	65.055	1587.9	34.44	4176.7
	11:00	1663.0	47.6	1238.4	71.047	1592.0	36.12	4181.0
	11:05	1664.4	52.0	1267.2	74.134	1590.3	36.96	4187.5
	11:10	1668.6	56.3	1238.4	71.047	1597.6	36.12	4190.6
	11:15	1684.2	60.7	1267.2	74.134	1610.1	36.96	4197.5
				1252.8				

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)/24.2857	(7) MEASURED BHP (psi)
5	11:20	1836.4	66.3	1612.8	115.818	1720.6	47.04	4210.5
	11:25	1837.8	72.0	1641.6	119.674	1718.1	47.88	4215.6
	11:30	1833.6	77.7	1641.6	119.674	1713.9	47.88	4219.7
	11:35	1825.0	83.4	1641.6	119.674	1705.3	47.88	4226.7
	11:40	1812.2	89.1	1641.6	119.674	1692.5	47.88	4228.7
	11:45	1807.9	94.8	1641.6	119.674	1688.2	47.88	4235.5
				1636.8				
	11:50	2002.7	101.8	2016.0	175.009	1827.7	58.80	4243.9
	11:55	2019.8	108.8	2016.0	175.009	1844.8	58.80	4250.0
	12:00	2025.5	115.8	2016.0	175.009	1850.5	58.80	4255.8
6	12:05	2021.2	122.8	2016.0	175.009	1846.2	58.80	4262.2
	12:10	2022.6	129.8	2016.0	175.009	1847.6	58.80	4265.2
	12:15	2014.1	136.8	2016.0	175.009	1839.1	58.80	4267.9
				2016.0				
	12:20	2331.4	145.5	2505.6	261.662	2069.7	73.08	4283.5
7	12:25	2322.8	154.3	2534.4	267.253	2055.5	73.92	4289.6
	12:30	2315.7	163.1	2534.4	267.253	2048.4	73.92	4292.7
	12:35	2305.7	171.9	2534.4	267.253	2038.4	73.92	4298.8
	12:40	2300.0	180.8	2563.2	272.898	2027.1	74.76	4301.8
	12:45	2304.3	189.5	2505.6	261.662	2042.6	73.08	4304.9
FALLOFF				2529.6				
	12:46	1419.4				1419.4		4271.3
	12:47	1427.9				1427.9		4268.3
	12:48	1426.5				1426.5		4265.2
	12:49	1426.5				1426.5		4265.2
	12:50	1425.1				1425.1		4262.2
	12:55	1420.8				1420.8		4259.1
	1:00	1417.9				1417.9		4256.1

WEST DOLLARHIDE DRINKARD UNIT #88



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 17, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 88
LEA COUNTY, NEW MEXICO

WO#: 94-14-1238

PERFS = 6397-6502

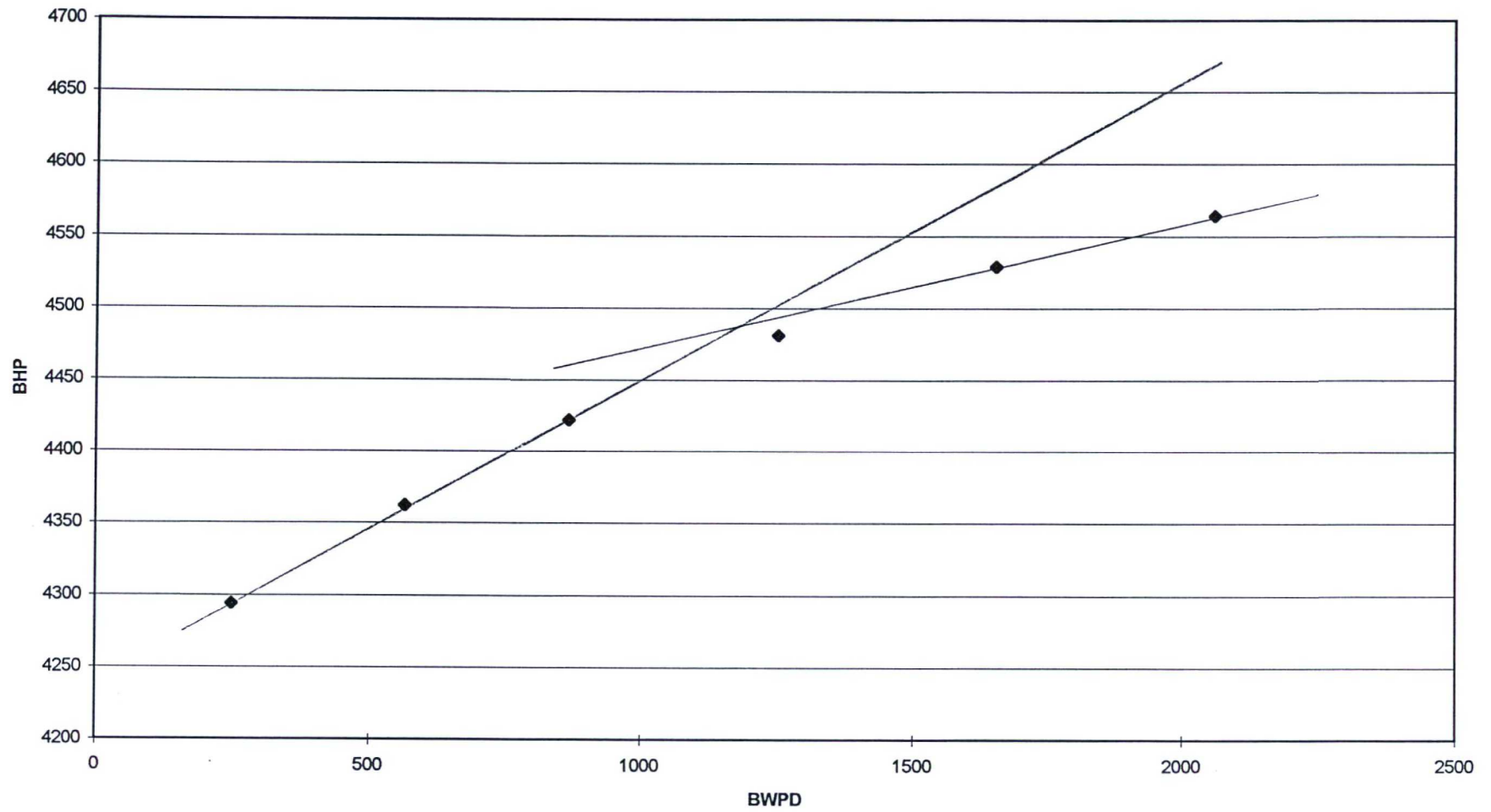
PACKER DEPTH = 6340

BHP GAUGE DEPTH = 6275

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	9:30	1438.6				1438.6		3653.4
	9:35	1461.4	0.8	230.4	3.152	1458.2	6.72	3693.9
	9:40	1457.2	1.7	259.2	3.920	1453.3	7.56	3709.8
	9:45	1433.1	2.3	172.8	1.851	1431.2	5.04	3726.7
	9:50	1387.6	3.2	259.2	3.920	1383.7	7.56	3736.0
	9:55	1362.0	4.0	230.4	3.152	1358.8	6.72	3743.8
	10:00	1342.1	4.7	201.6	2.462	1339.6	5.88	3751.0
				225.6				
	10:05	1344.9	6.4	489.6	12.713	1332.2	14.28	3785.8
	10:10	1306.4	8.0	460.8	11.364	1295.0	13.44	3803.1
2	10:15	1258.0	9.7	489.6	12.713	1245.3	14.28	3814.7
	10:20	1221.0	11.2	432.0	10.085	1210.9	12.60	3823.9
	10:25	1171.2	12.7	432.0	10.085	1161.1	12.60	3836.2
	10:30	1131.3	14.4	489.6	12.713	1118.6	14.28	3853.4
				465.6				
	10:35	1122.8	16.7	662.4	22.238	1100.6	19.32	3874.7
	10:40	1107.1	19.0	662.4	22.238	1084.9	19.32	3882.2
	10:45	1127.0	21.3	662.4	22.238	1104.8	19.32	3893.9
	10:50	1129.8	23.5	633.6	20.483	1109.3	18.48	3906.1
	10:55	1144.0	25.8	662.4	22.238	1121.8	19.32	3914.1
3	11:00	1149.7	28.1	662.4	22.238	1127.5	19.32	3925.2
				657.6				
	11:05	1276.2	31.4	950.4	43.366	1232.8	27.72	3959.2
	11:10	1293.3	34.7	950.4	43.366	1249.9	27.72	3978.1
	11:15	1317.5	38.0	950.4	43.366	1274.1	27.72	3993.6
	11:20	1337.3	41.2	921.6	40.967	1296.3	26.88	4006.5
	11:25	1378.6	44.6	979.2	45.829	1332.8	28.56	4020.9
	11:30	1392.8	47.9	950.4	43.366	1349.4	27.72	4035.2
				950.4				

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)
5	11:35	1523.6	52.4	1296.0	76.974	1446.6	37.80	4065.2
	11:40	1542.1	56.7	1238.4	70.765	1471.3	36.12	4081.6
	11:45	1556.3	61.0	1238.4	70.765	1485.5	36.12	4094.5
	11:50	1564.8	65.3	1238.4	70.765	1494.0	36.12	4109.7
	11:55	1567.6	69.8	1296.0	76.974	1490.6	37.80	4119.9
	12:00	1577.6	74.0	1209.6	67.751	1509.8	35.28	4130.8
				1252.8				
	12:05	1734.1	79.3	1526.4	104.187	1629.9	44.52	4155.7
	12:10	1735.5	84.7	1555.2	107.853	1627.6	45.36	4169.3
	12:15	1765.3	90.1	1555.2	107.853	1657.4	45.36	4181.2
6	12:20	1771.1	95.4	1526.4	104.187	1666.9	44.52	4190.4
	12:25	1768.2	100.7	1526.4	104.187	1664.0	44.52	4199.7
	12:30	1788.1	106.0	1526.4	104.187	1683.9	44.52	4207.2
				1536.0				
	12:35	1955.9	112.3	1814.4	143.444	1812.5	52.92	4226.3
7	12:40	1980.1	118.7	1843.2	147.685	1832.4	53.76	4235.7
	12:45	1987.2	125.0	1814.4	143.444	1843.8	52.92	4244.1
	12:50	1998.5	131.4	1843.2	147.685	1850.8	53.76	4251.7
	12:55	2008.4	137.7	1814.4	143.444	1865.0	52.92	4257.0
	1:00	2012.7	144.0	1814.4	143.444	1869.3	52.92	4264.5
FALLOFF				1824.0				
	1:01	1509.1				1509.1		4240.2
	1:02	1504.8				1504.8		4236.8
	1:03	1503.4				1503.4		4233.3
	1:04	1502.0				1502.0		4230.6
	1:05	1499.1				1499.1		4227.7
	1:10	1487.7				1487.7		4216.2
	1:15	1479.2				1479.2		4206.0

WEST DOLLARHIDE DRINKARD UNIT #131



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 22, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 131
LEA COUNTY, NEW MEXICO

WO#: 94-14-1413

PERFS = 6485-6658

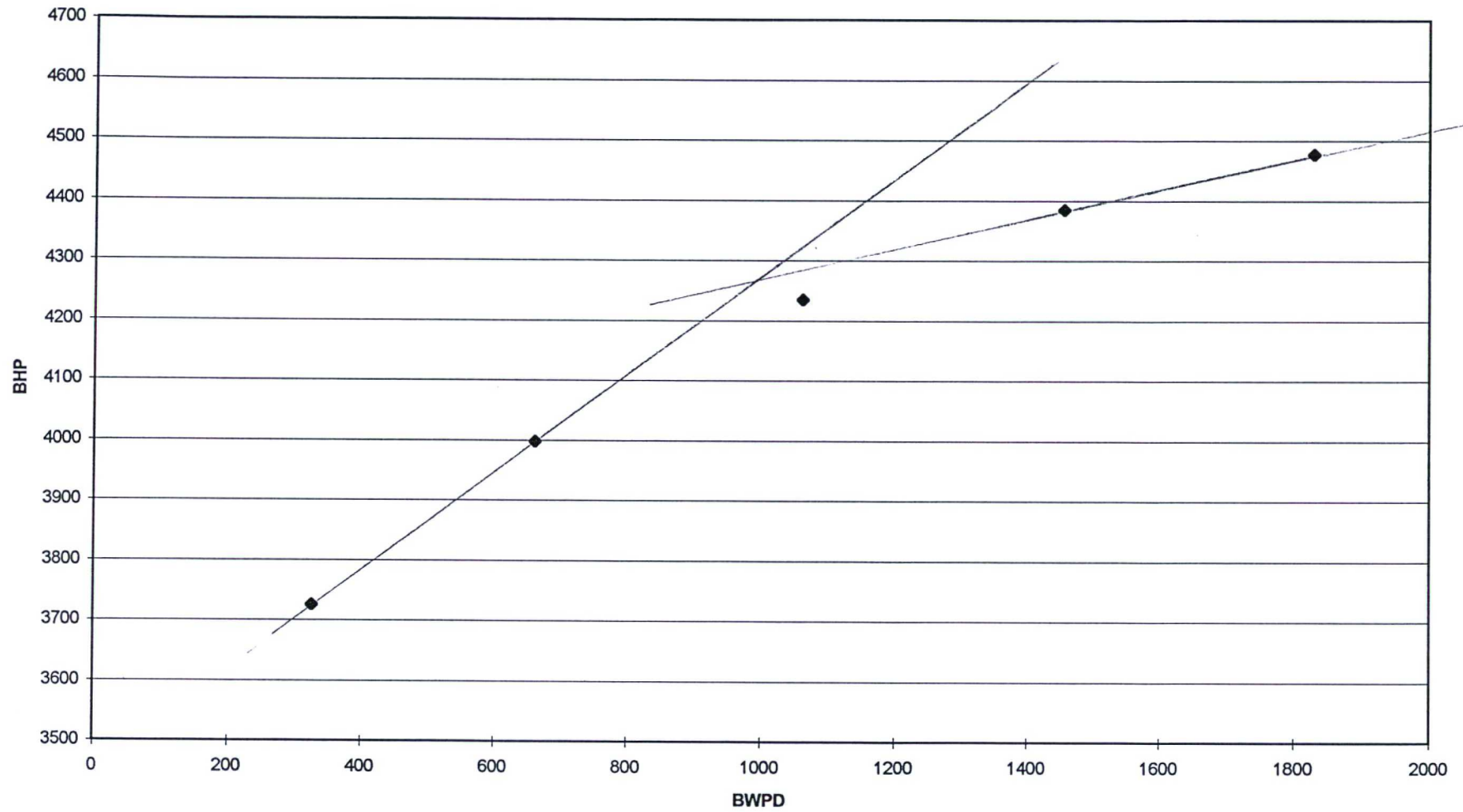
PACKER DEPTH = 6458

BHP GAUGE DEPTH = 6390

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	10:10	1230.8				1230.8		4251.2
	10:15	1269.3	0.8	230.4	3.210	1266.1	6.72	4264.0
	10:20	1270.7	1.6	230.4	3.210	1267.5	6.72	4269.3
	10:25	1265.0	2.3	201.6	2.507	1262.5	5.88	4273.4
	10:30	1284.9	3.3	288.0	4.851	1280.0	8.40	4281.5
	10:35	1280.7	4.2	259.2	3.992	1276.7	7.56	4287.6
	10:40	1300.7	5.2	288.0	4.851	1295.8	8.40	4294.4
				249.6				
	10:45	1324.9	7.1	547.2	15.903	1309.0	15.96	4310.5
	10:50	1340.6	9.1	576.0	17.486	1323.1	16.80	4324.7
2	10:55	1340.5	11.1	576.0	17.486	1323.0	16.80	4337.3
	11:00	1351.9	13.1	576.0	17.486	1334.4	16.80	4345.0
	11:05	1359.1	15.1	576.0	17.486	1341.6	16.80	4353.6
	11:10	1364.9	17.0	547.2	15.903	1349.0	15.96	4362.2
				566.4				
	11:15	1416.1	20.0	864.0	37.022	1379.1	25.20	4376.4
	11:20	1423.2	23.0	864.0	37.022	1386.2	25.20	4390.1
	11:25	1448.7	26.1	892.8	39.338	1409.4	26.04	4398.9
	11:30	1453.0	29.1	864.0	37.022	1416.0	25.20	4408.6
	11:35	1468.7	32.1	864.0	37.022	1431.7	25.20	4416.4
3	11:40	1480.0	35.1	864.0	37.022	1443.0	25.20	4422.2
				868.8				
	11:45	1549.7	39.5	1267.2	75.193	1474.5	36.96	4436.5
	11:50	1573.9	43.9	1267.2	75.193	1498.7	36.96	4452.1
	11:55	1576.7	48.3	1267.2	75.193	1501.5	36.96	4460.2
	12:00	1598.1	52.5	1209.6	68.992	1529.1	35.28	4469.4
	12:05	1610.8	56.9	1267.2	75.193	1535.6	36.96	4474.9
	12:10	1619.4	61.2	1238.4	72.062	1547.3	36.12	4481.1
				1252.8				

STEP NO. & REMARKS		(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	12:15	1677.7	66.9	1641.6	121.383	1556.3	47.88	4495.0
	12:20	1689.0	72.5	1612.8	117.473	1571.5	47.04	4501.9
	12:25	1697.5	78.2	1641.6	121.383	1576.1	47.88	4511.2
	12:30	1706.0	83.9	1641.6	121.383	1584.6	47.88	4518.2
	12:35	1703.2	89.7	1670.4	125.352	1577.8	48.72	4521.4
	12:40	1708.9	95.6	1699.2	129.380	1579.5	49.56	4528.9
				1651.2				
	12:45	1781.4	102.7	2044.8	182.229	1599.2	59.64	4539.1
	12:50	1785.7	109.9	2073.6	187.006	1598.7	60.48	4546.8
	12:55	1785.7	117.0	2044.8	182.229	1603.5	59.64	4551.9
6	1:00	1791.3	124.2	2073.6	187.006	1604.3	60.48	4554.8
	1:05	1788.4	131.4	2073.6	187.006	1601.4	60.48	4560.4
	1:10	1792.7	138.5	2044.8	182.229	1610.5	59.64	4564.1
				2059.2				
FALLOFF	1:11	1586.4				1586.4		4548.9
	1:12	1580.7				1580.7		4547.0
	1:13	1580.7				1580.7		4546.7
	1:14	1579.3				1579.3		4544.4
	1:15	1579.3				1579.3		4543.3
	1:20	1577.9				1577.9		4534.6
	1:25	1576.4				1576.4		4528.3

WEST DOLLARHIDE DRINKARD UNIT #64



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 23, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 64
LEA COUNTY, NEW MEXICO

WO#: 94-14-1414

PERFS = 6359-6489

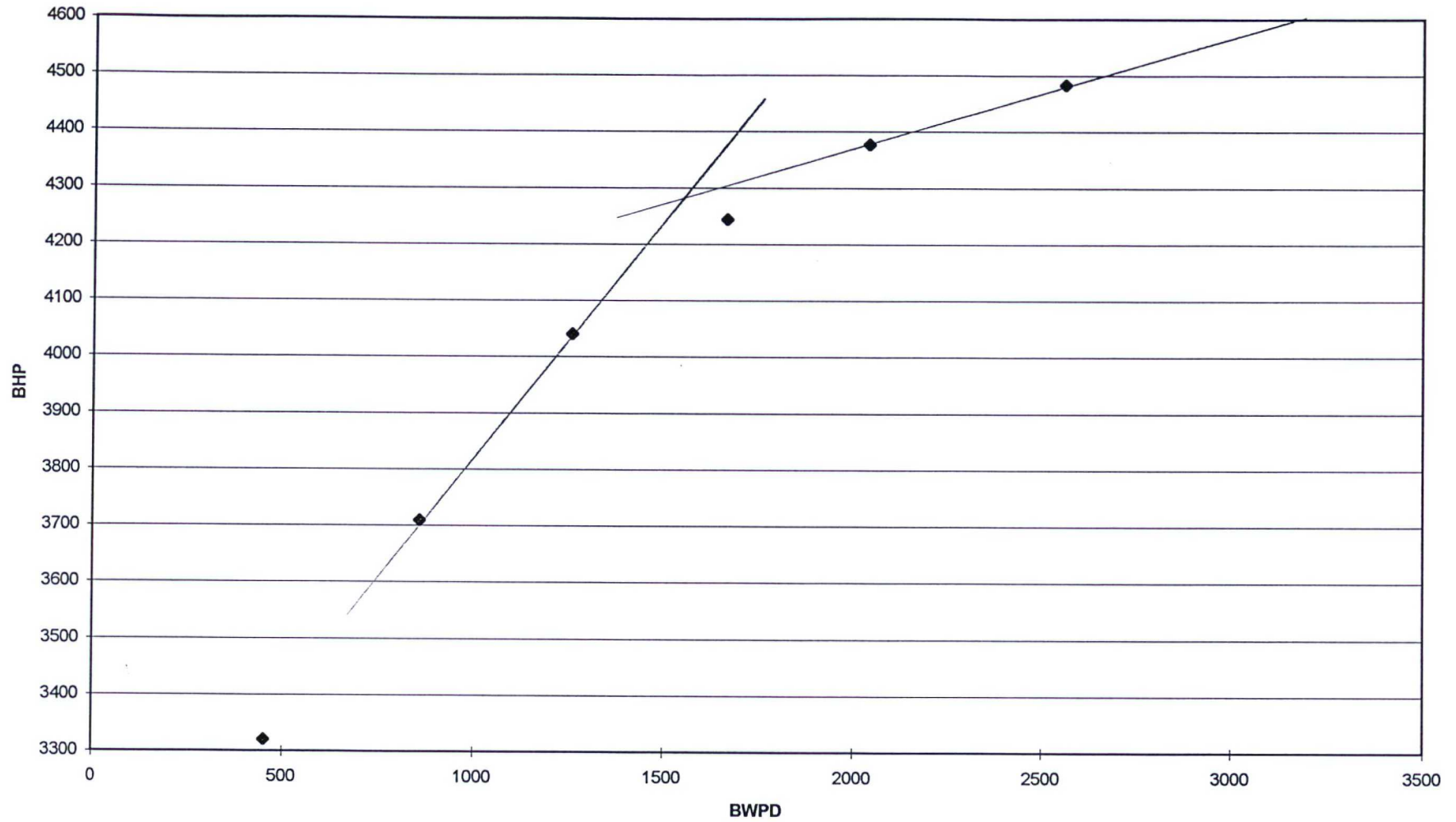
PACKER DEPTH = 6317

BHP GAUGE DEPTH = 6225

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	9:40	572.2				572.2		3472.2
	9:45	673.1	1.1	316.8	5.636	667.5	9.24	3552.9
	9:50	721.3	2.4	374.4	7.678	713.6	10.92	3596.6
	9:55	776.9	3.3	259.2	3.888	773.0	7.56	3638.3
	10:00	794.1	4.5	345.6	6.621	787.5	10.08	3670.6
	10:05	819.6	5.7	345.6	6.621	813.0	10.08	3700.1
	10:10	854.9	6.8	316.8	5.636	849.3	9.24	3725.5
				326.4				
	10:15	952.9	9.1	662.4	22.061	930.8	19.32	3798.7
	10:20	1008.4	11.4	662.4	22.061	986.3	19.32	3850.2
2	10:25	1037.2	13.7	662.4	22.061	1015.1	19.32	3892.0
	10:30	1071.7	15.9	633.6	20.319	1051.4	18.48	3928.4
	10:35	1098.8	18.3	691.2	23.868	1074.9	20.16	3966.6
	10:40	1104.4	20.6	662.4	22.061	1082.3	19.32	3997.7
				662.4				
	10:45	1258.0	24.3	1065.6	53.162	1204.8	31.08	4074.0
	10:50	1289.2	28.0	1065.6	53.162	1236.0	31.08	4120.7
	10:55	1314.8	31.6	1036.8	50.535	1264.3	30.24	4157.8
	11:00	1337.6	35.3	1065.6	53.162	1284.4	31.08	4187.0
	11:05	1346.2	39.0	1065.6	53.162	1293.0	31.08	4211.3
3	11:10	1363.2	42.7	1065.6	53.162	1310.0	31.08	4234.7
				1060.8				
	11:15	1532.5	47.7	1440.0	92.795	1439.7	42.00	4285.5
	11:20	1563.8	52.8	1468.8	96.257	1467.5	42.84	4315.0
	11:25	1583.7	58.0	1497.6	99.778	1483.9	43.68	4340.0
	11:30	1593.7	62.9	1411.2	89.390	1504.3	41.16	4354.7
	11:35	1606.5	68.0	1468.8	96.257	1510.2	42.84	4372.1
	11:40	1615.0	73.0	1440.0	92.795	1522.2	42.00	4384.5
				1454.4				

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)
5	11:45	1789.9	79.4	1843.2	146.508	1643.4	53.76	4421.0
	11:50	1804.1	85.7	1814.4	142.301	1661.8	52.92	4436.8
	11:55	1805.5	92.1	1843.2	146.508	1659.0	53.76	4452.0
	12:00	1818.2	98.4	1814.4	142.301	1675.9	52.92	4460.6
	12:05	1826.8	104.8	1843.2	146.508	1680.3	53.76	4468.4
	12:10	1834.0	111.1	1814.4	142.301	1691.7	52.92	4477.4
				1828.8				
	12:15	2044.5	118.8	2217.6	206.270	1838.2	64.68	4508.1
	12:20	2044.5	126.6	2246.4	211.253	1833.2	65.52	4518.6
	12:25	2050.2	134.3	2217.6	206.270	1843.9	64.68	4525.3
6	12:30	2055.9	142.0	2217.6	206.270	1849.6	64.68	4532.0
	12:35	2061.6	149.6	2188.8	201.342	1860.3	63.84	4535.2
	12:40	2090.0	157.3	2217.6	206.270	1883.7	64.68	4538.8
				2217.6				
	FALLOFF							
	12:41	1474.1				1474.1		4483.8
	12:42	1461.3				1461.3		4471.0
	12:43	1452.7				1452.7		4460.7
	12:44	1445.6				1445.6		4451.8
	12:45	1439.9				1439.9		4444.2
	12:50	1415.7				1415.7		4412.9
	12:55	1397.3				1397.3		4390.1

WEST DOLLARHIDE DRINKARD UNIT #17



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 25, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 17
LEA COUNTY, NEW MEXICO

WO#: 94-14-1416

PERFS = 6614-6847

PACKER DEPTH = 6570

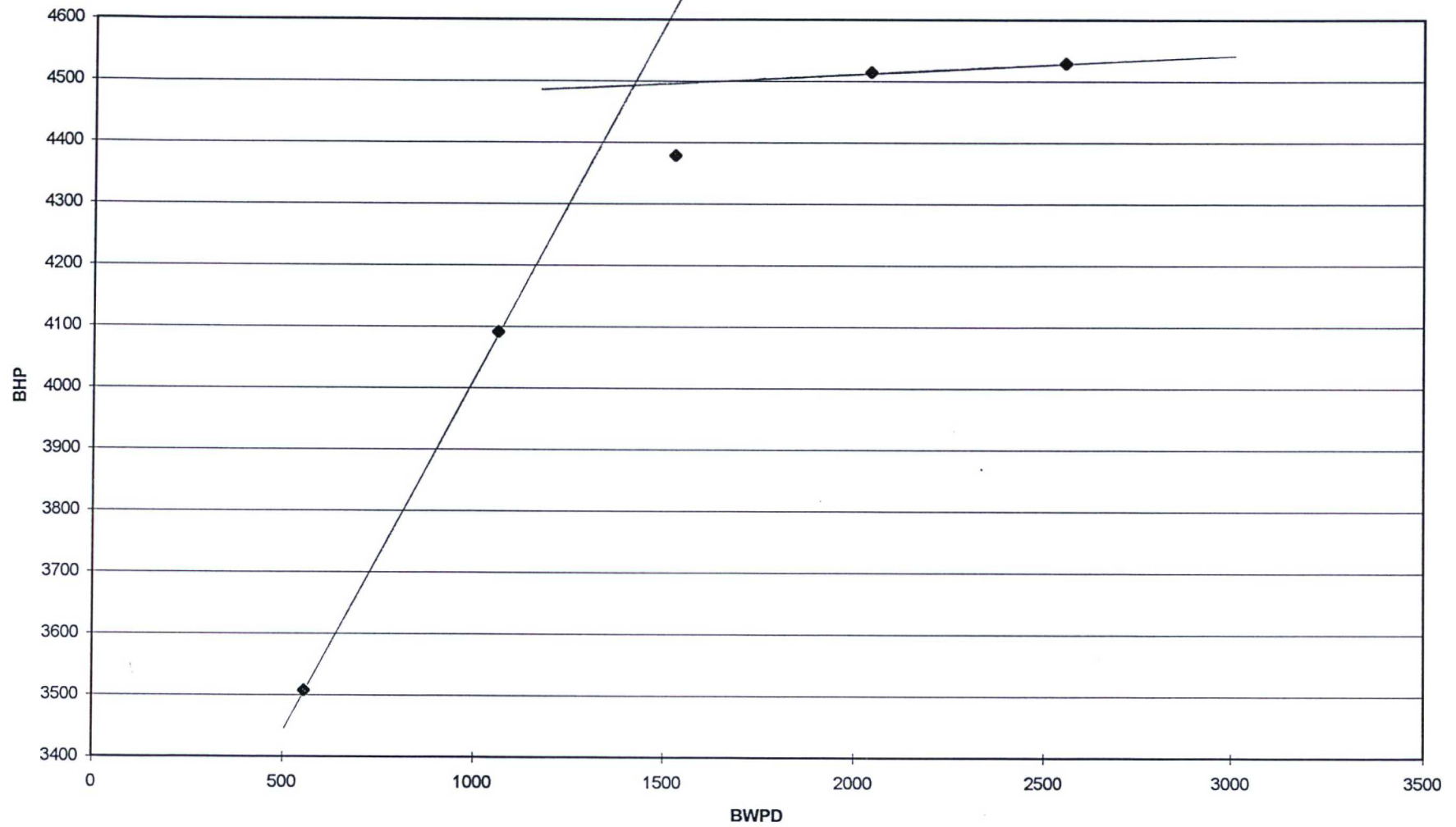
BHP GAUGE DEPTH = 6540

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	9:15	131.4				131.4		2999.4
	9:20	262.2	1.6	460.8	11.844	250.4	13.44	3104.5
	9:25	316.3	3.1	432.0	10.511	305.8	12.60	3160.0
	9:30	354.8	4.6	432.0	10.511	344.3	12.60	3204.0
	9:35	390.4	6.2	460.8	11.844	378.6	13.44	3245.1
	9:40	420.3	7.8	460.8	11.844	408.5	13.44	3284.7
	9:45	399.1	9.4	460.8	11.844	387.3	13.44	3320.4
				451.2				
	9:50	471.6	12.4	864.0	37.891	433.7	25.20	3429.7
	9:55	535.6	15.4	864.0	37.891	497.7	25.20	3500.0
2	10:00	595.4	18.4	864.0	37.891	557.5	25.20	3566.1
	10:05	642.4	21.4	864.0	37.891	604.5	25.20	3619.1
	10:10	682.2	24.4	864.0	37.891	644.3	25.20	3666.1
	10:15	715.0	27.3	835.2	35.588	679.4	24.36	3709.8
				859.2				
	10:20	902.6	31.7	1267.2	76.958	825.6	36.96	3804.0
	10:25	949.5	36.1	1267.2	76.958	872.5	36.96	3868.9
	10:30	1004.9	40.4	1238.4	73.754	931.1	36.12	3922.8
	10:35	1037.6	44.8	1267.2	76.958	960.6	36.96	3969.4
	10:40	1081.7	49.2	1267.2	76.958	1004.7	36.96	4009.8
3	10:45	1101.6	53.5	1238.4	73.754	1027.8	36.12	4040.0
				1257.6				
	10:50	1282.2	59.3	1670.4	128.295	1153.9	48.72	4102.3
	10:55	1309.2	65.1	1670.4	128.295	1180.9	48.72	4143.0
	11:00	1333.4	70.9	1670.4	128.295	1205.1	48.72	4174.3
	11:05	1354.7	76.7	1670.4	128.295	1226.4	48.72	4199.8
	11:10	1373.1	82.5	1670.4	128.295	1244.8	48.72	4223.3
	11:15	1387.3	88.2	1641.6	124.233	1263.1	47.88	4243.8
				1665.6				

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	11:20	1577.9	95.4	2073.6	191.396	1386.5	60.48	4285.5
	11:25	1592.1	102.5	2044.8	186.507	1405.6	59.64	4311.6
	11:30	1612.0	109.5	2016.0	181.676	1430.3	58.80	4330.6
	11:35	1626.2	116.6	2044.8	186.507	1439.7	59.64	4346.1
	11:40	1633.3	123.6	2016.0	181.676	1451.6	58.80	4361.6
	11:45	1656.1	130.7	2044.8	186.507	1469.6	59.64	4377.1
				2040.0				
	11:50	1912.1	139.5	2534.4	277.434	1634.7	73.92	4413.4
	11:55	1933.5	148.4	2563.2	283.295	1650.2	74.76	4432.0
	12:00	1942.0	157.3	2563.2	283.295	1658.7	74.76	4447.6
	12:05	1954.8	166.2	2563.2	283.295	1671.5	74.76	4460.2
	12:10	1961.9	175.1	2563.2	283.295	1678.6	74.76	4472.2
	12:15	1977.6	184.0	2563.2	283.295	1694.3	74.76	4483.1
				2558.4				
FALLOFF	12:16	1253.6				1253.6		4437.8
	12:17	1263.5				1263.5		4429.3
	12:18	1257.8				1257.8		4423.3
	12:19	1253.5				1253.5		4416.5
	12:20	1249.2				1249.2		4411.0
	12:25	1233.6				1233.6		4383.5
	12:30	1220.8				1220.8		4361.0

Sheet6 Chart 1

WEST DOLLARHIDE DRINKARD UNIT #19



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 26, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 19
LEA COUNTY, NEW MEXICO

WO#: 94-14-1417

PERFS = 6510-6610

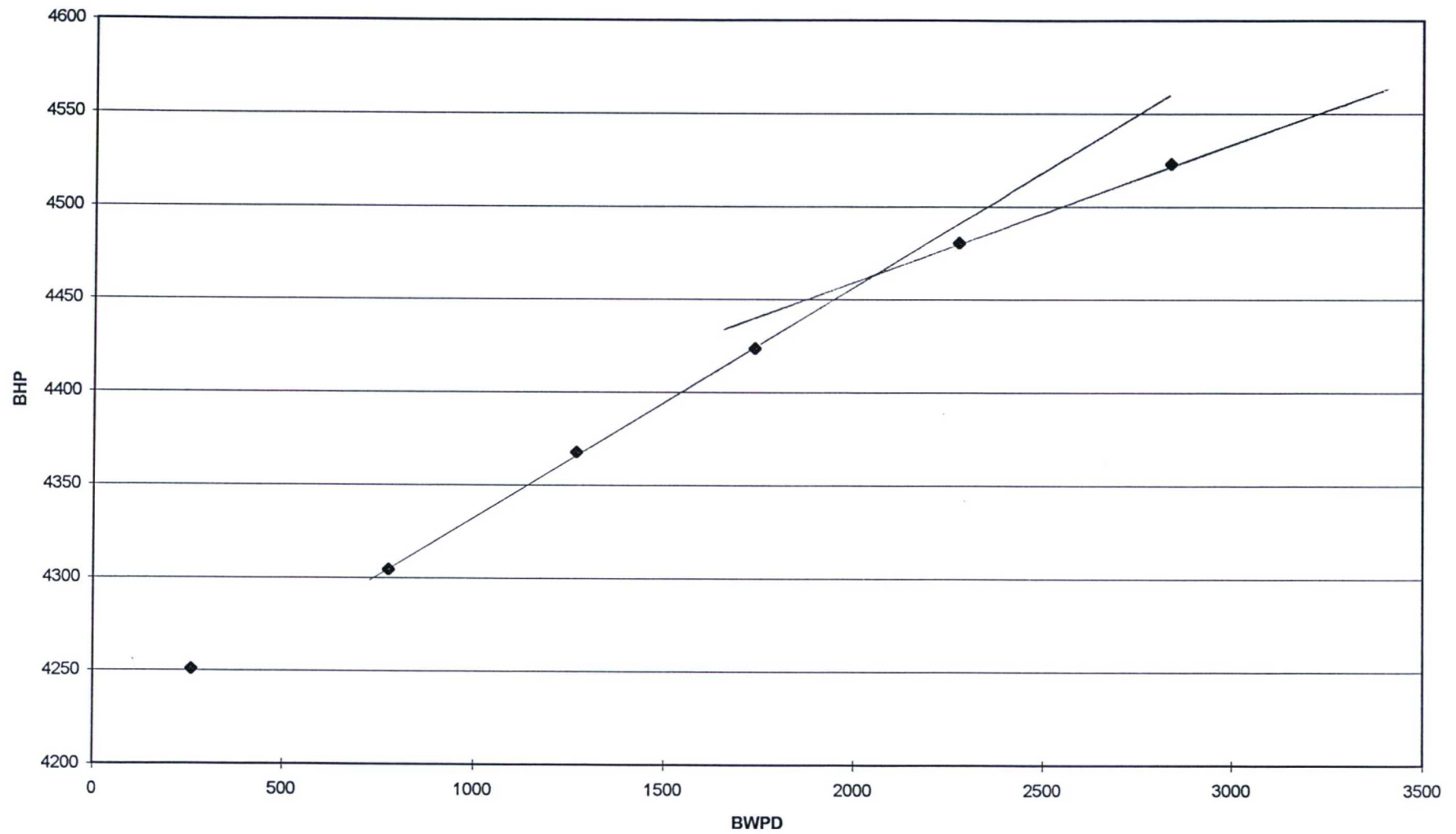
PACKER DEPTH = 6460

BHP GAUGE DEPTH = 6450

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	11:55	25.2				25.2		2979.5
	12:00	181.4	1.9	547.2	16.053	165.3	15.96	3114.2
	12:05	268.7	3.9	576.0	17.650	251.0	16.80	3211.6
	12:10	345.5	5.8	547.2	16.053	329.4	15.96	3306.2
	12:15	398.0	7.7	547.2	16.053	381.9	15.96	3376.8
	12:20	473.3	9.6	547.2	16.053	457.2	15.96	3448.0
	12:25	520.2	11.6	576.0	17.650	502.5	16.80	3507.3
				556.8				
	12:30	879.6	15.4	1094.4	57.869	821.7	31.92	3775.3
	12:35	986.2	18.9	1008.0	49.702	936.5	29.40	3901.0
2	12:40	1046.6	22.7	1094.4	57.869	988.7	31.92	3971.6
	12:45	1104.2	26.4	1065.6	55.084	1049.1	31.08	4028.7
	12:50	1127.0	30.0	1036.8	52.361	1074.6	30.24	4061.8
	12:55	1159.7	33.7	1065.6	55.084	1104.6	31.08	4091.5
				1060.8				
	1:00	1489.7	39.0	1526.4	107.093	1382.6	44.52	4273.9
	1:05	1533.8	44.4	1555.2	110.861	1422.9	45.36	4319.2
	1:10	1555.1	49.6	1497.6	103.384	1451.7	43.68	4342.4
	1:15	1575.1	54.9	1526.4	107.093	1468.0	44.52	4360.1
	1:20	1579.3	60.2	1526.4	107.093	1472.2	44.52	4367.9
3	1:25	1587.8	65.5	1526.4	107.093	1480.7	44.52	4378.4
				1526.4				
	1:30	1915.0	72.5	2016.0	179.176	1735.8	58.80	4497.1
	1:35	1926.3	79.5	2016.0	179.176	1747.1	58.80	4507.5
	1:40	1929.2	86.6	2044.8	183.940	1745.3	59.64	4511.4
	1:45	1924.9	93.7	2044.8	183.940	1741.0	59.64	4511.5
	1:50	1923.5	100.8	2044.8	183.940	1739.6	59.64	4513.9
	1:55	1932.0	108.0	2073.6	188.762	1743.2	60.48	4514.7
				2040.0				

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 FALLOFF	2:00	2226.3	116.8	2534.4	273.616	1952.7	73.92	4533.0
	2:05	2223.5	125.6	2534.4	273.616	1949.9	73.92	4538.1
	2:10	2229.2	134.5	2563.2	279.396	1949.8	74.76	4540.6
	2:15	2246.2	143.3	2534.4	273.616	1972.6	73.92	4542.6
	2:20	2254.7	152.2	2563.2	279.396	1975.3	74.76	4529.5
	2:25	2253.3	161.2	2592.0	285.231	1968.1	75.60	4528.8
				2553.6				
	2:26	1257.7				1257.7		4339.8
	2:27	1246.3				1246.3		4324.0
	2:28	1239.2				1239.2		4316.5
	2:29	1234.9				1234.9		4308.6
	2:30	1230.7				1230.7		4303.4
	2:35	1215.0				1215.0		4277.9
	2:40	1205.1				1205.1		4260.8

WEST DOLLARHIDE DRINKARD UNIT #28



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 30, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 28
LEA COUNTY, NEW MEXICO

WO#: 94-14-1419

PERFS =

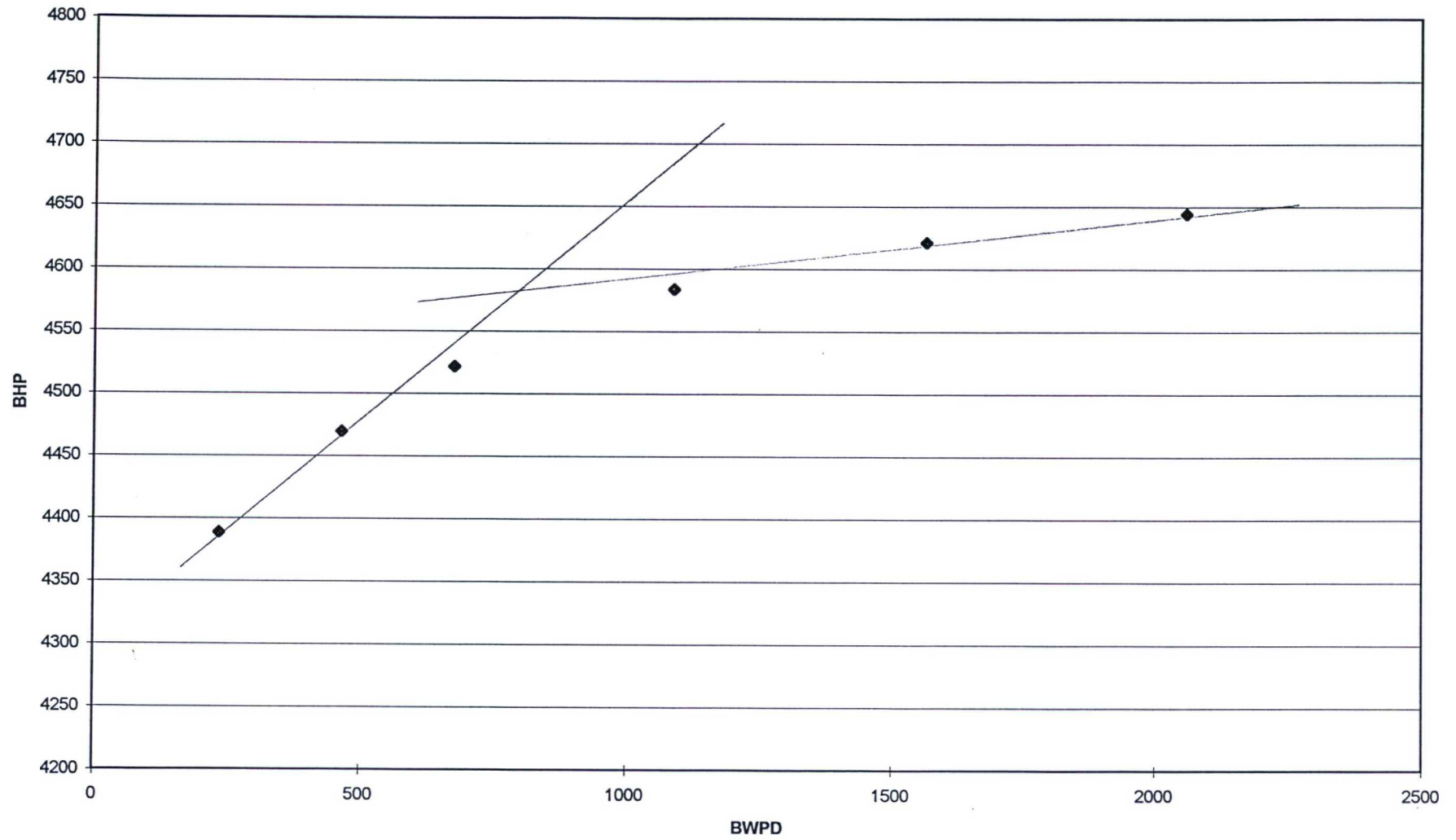
PACKER DEPTH = 6551

BHP GAUGE DEPTH = 6450

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	9:10	1209.3						
	9:15	1213.6	1.0	288.0	4.896	1209.3		4239.4
	9:20	1227.9	1.8	230.4	3.240	1208.7	8.40	4239.8
	9:25	1223.7	2.7	259.2	4.029	1224.7	6.72	4241.7
	9:30	1225.2	3.6	259.2	4.029	1219.7	7.56	4243.5
	9:35	1236.7	4.5	259.2	4.029	1221.2	7.56	4245.6
	9:40	1235.3	5.4	259.2	4.029	1232.7	7.56	4248.6
				259.2		1231.3	7.56	4250.8
	9:45	1266.6	8.1	777.6	30.752	1235.8	22.68	4265.7
	9:50	1283.0	10.8	777.6	30.752	1252.2	22.68	4275.1
2	9:55	1295.1	13.5	777.6	30.752	1264.3	22.68	4282.3
	10:00	1282.4	16.2	777.6	30.752	1264.3	22.68	4282.3
	10:05	1302.3	18.9	777.6	30.752	1251.6	22.68	4290.4
	10:10	1286.6	21.6	777.6	30.752	1271.5	22.68	4296.6
				777.6		1255.8	22.68	4304.3
	10:15	1367.7	26.0	1267.2	75.899	1291.8	36.96	4318.6
3	10:20	1370.0	30.4	1267.2	75.899	1294.1	36.96	4330.5
	10:25	1368.0	34.8	1267.2	75.899	1292.1	36.96	4341.4
	10:30	1377.6	39.2	1267.2	75.899	1301.7	36.96	4351.2
	10:35	1376.1	43.6	1267.2	75.899	1300.2	36.96	4358.8
	10:40	1394.6	48.0	1267.2	75.899	1318.7	36.96	4367.6
				1267.2				
4	10:45	1471.4	54.1	1756.8	138.902	1332.5	51.24	4381.1
	10:50	1474.2	60.1	1728.0	134.719	1339.5	50.40	4391.7
	10:55	1482.7	66.1	1728.0	134.719	1348.0	50.40	4400.6
	11:00	1481.3	72.2	1756.8	138.902	1342.4	51.24	4409.1
	11:05	1489.8	78.2	1728.0	134.719	1355.1	50.40	4417.2
	11:10	1496.9	84.2	1728.0	134.719	1362.2	50.40	4423.5
				1737.6				

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	11:15	1626.3	92.1	2275.2	224.109	1402.2	66.36	4442.3
	11:20	1632.0	100.0	2275.2	224.109	1407.9	66.36	4452.2
	11:25	1633.4	107.9	2275.2	224.109	1409.3	66.36	4460.7
	11:30	1641.9	115.8	2275.2	224.109	1417.8	66.36	4467.5
	11:35	1644.7	123.7	2275.2	224.109	1420.6	66.36	4475.1
	11:40	1650.4	131.6	2275.2	224.109	1426.3	66.36	4480.5
	11:45	1795.5	141.4	2822.4	333.900	1461.6	82.32	4494.8
	11:50	1805.4	151.3	2851.2	340.231	1465.2	83.16	4502.2
	11:55	1811.0	161.1	2822.4	333.900	1477.1	82.32	4508.0
	12:00	1803.9	171.0	2851.2	340.231	1463.7	83.16	4512.3
6	12:05	1802.4	180.8	2822.4	333.900	1468.5	82.32	4518.2
	12:10	1813.8	190.7	2851.2	340.231	1473.6	83.16	4522.8
FALLOFF	12:11	1387.1		2836.8		1387.1		4499.2
	12:12	1381.3				1381.3		4495.4
	12:13	1379.9				1379.9		4492.4
	12:14							
	12:15							
	12:20	1372.7				1372.7		4478.9
	12:25	1368.5				1368.5		4469.1

WEST DOLLARHIDE DRINKARD UNIT #121



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: SEPTEMBER 1, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 121
LEA COUNTY, NEW MEXICO

WO#: 94-14-1421

PERFS = 6465-6574

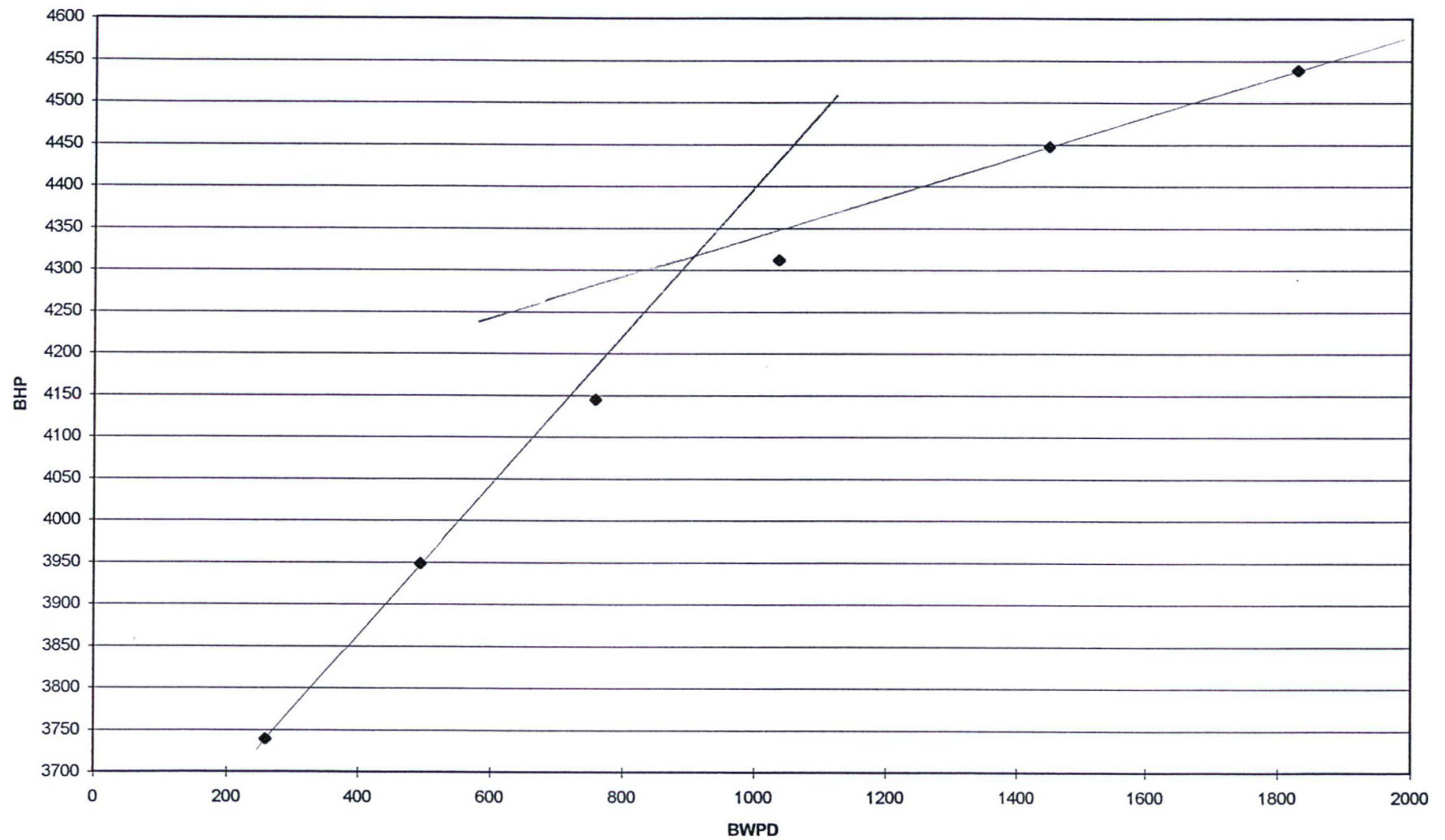
PACKER DEPTH = 6444

BHP GAUGE DEPTH = 6350

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	9:45	1330.7				1330.7		4329.0
	9:50	1404.8	1.0	288.0	4.820	1400.0	8.40	4375.6
	9:55	1411.9	1.9	259.2	3.967	1407.9	7.56	4382.3
	10:00	1409.1	2.7	230.4	3.190	1405.9	6.72	4381.8
	10:05	1409.2	3.4	201.6	2.492	1406.7	5.88	4383.8
	10:10	1416.3	4.2	230.4	3.190	1413.1	6.72	4385.3
	10:15	1413.4	4.9	201.6	2.492	1410.9	5.88	4388.7
				235.2				
	10:20	1463.3	6.6	489.6	12.865	1450.4	14.28	4430.0
	10:25	1480.4	8.2	460.8	11.500	1468.9	13.44	4443.0
2	10:30	1484.7	9.8	460.8	11.500	1473.2	13.44	4451.7
	10:35	1489.0	11.4	460.8	11.500	1477.5	13.44	4457.9
	10:40	1503.2	13.0	460.8	11.500	1491.7	13.44	4461.8
	10:45	1496.1	14.6	460.8	11.500	1484.6	13.44	4469.6
				465.6				
	10:50	1551.6	17.0	691.2	24.347	1527.3	20.16	4493.5
	10:55	1548.8	19.3	662.4	22.504	1526.3	19.32	4506.9
	11:00	1565.9	21.7	691.2	24.347	1541.6	20.16	4508.8
	11:05	1555.9	24.0	662.4	22.504	1533.4	19.32	4516.6
	11:10	1563.1	26.4	691.2	24.347	1538.8	20.16	4521.7
3	11:15	1564.7	28.7	662.4	22.504	1542.2	19.32	4521.5
				676.8				
	11:20	1674.4	32.5	1094.4	56.972	1617.4	31.92	4567.3
	11:25	1680.3	36.2	1065.6	54.230	1626.1	31.08	4574.1
	11:30	1673.3	40.1	1123.2	59.777	1613.5	32.76	4579.8
	11:35	1666.2	43.8	1065.6	54.230	1612.0	31.08	4581.7
	11:40	1666.2	47.6	1094.4	56.972	1609.2	31.92	4583.5
	11:45	1664.8	51.4	1094.4	56.972	1607.8	31.92	4583.7
				1089.6				

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	11:50	1831.2	56.8	1555.2	109.142	1722.1	45.36	4615.6
	11:55	1821.2	62.2	1555.2	109.142	1712.1	45.36	4623.7
	12:00	1819.8	67.6	1555.2	109.142	1710.7	45.36	4622.4
	12:05	1818.4	73.1	1584.0	112.910	1705.5	46.20	4622.3
	12:10	1819.8	78.6	1584.0	112.910	1706.9	46.20	4622.6
	12:15	1821.3	84.0	1555.2	109.142	1712.2	45.36	4621.1
				1564.8				
	12:20	2019.0	91.3	2102.4	190.638	1828.4	61.32	4648.9
	12:25	2011.9	98.2	1987.2	171.765	1840.1	57.96	4650.4
	12:30	2019.0	105.3	2044.8	181.088	1837.9	59.64	4648.8
6	12:35	2010.5	112.6	2102.4	190.638	1819.9	61.32	4646.5
	12:40	2014.8	119.7	2044.8	181.088	1833.7	59.64	4647.7
	12:45	2010.6	126.9	2073.6	185.835	1824.8	60.48	4644.2
				2059.2				
	FALLOFF 12:46	1521.2				1521.2		4585.3
	12:47	1509.8				1509.8		4578.4
	12:48	1505.5				1505.5		4573.2
	12:49	1504.0				1504.0		4572.1
	12:50	1502.6				1502.6		4568.7
	12:55	1498.4				1498.4		4553.4
	1:00	1494.3				1494.3		4543.1

WEST DOLLARHIDE DRINKARD UNIT # 56



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 11, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD NO. 56
LEA COUNTY, NEW MEXICO

WO#: 94-14-1235

PERFS = 6481-6607

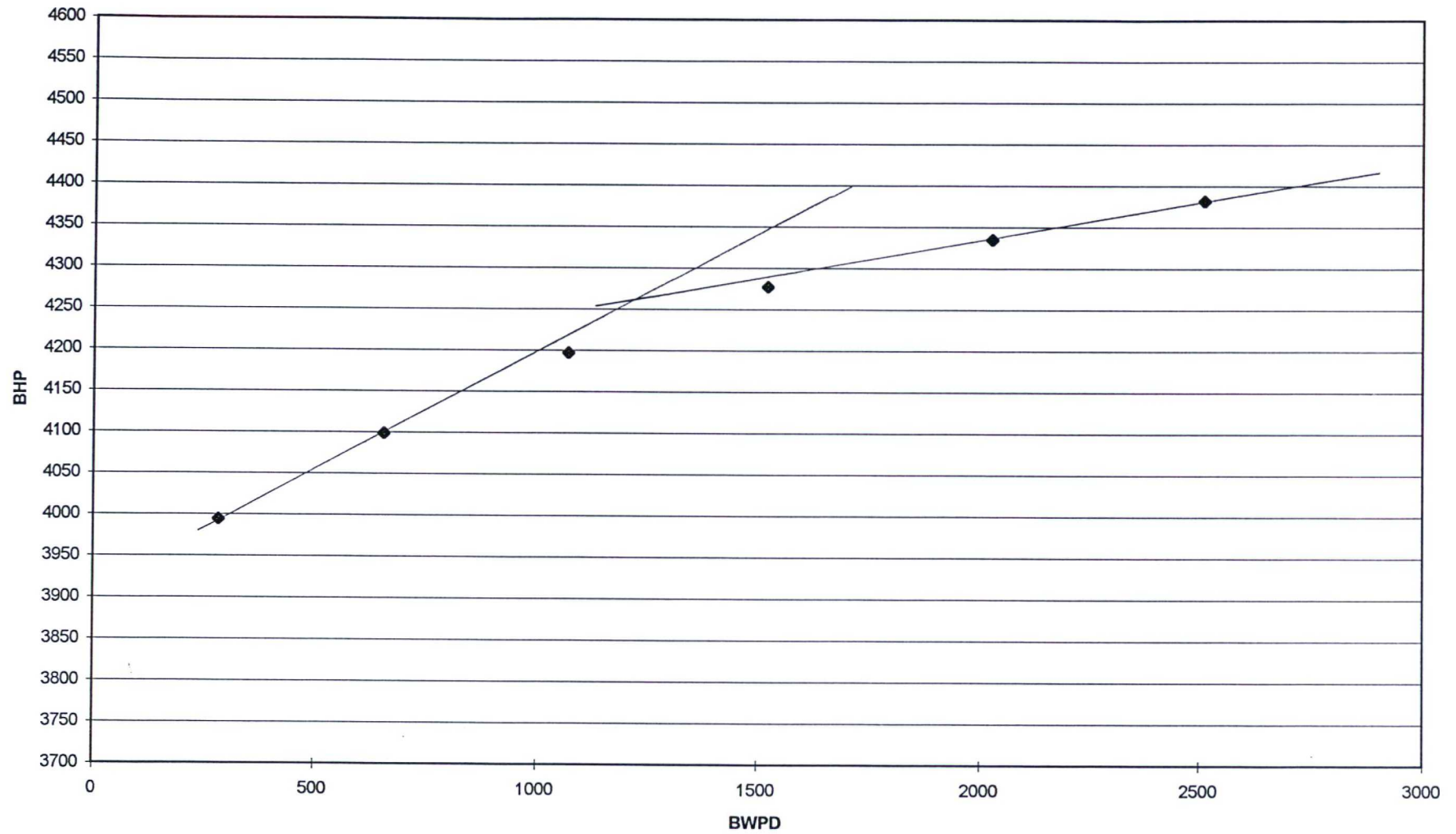
PACKER DEPTH = 6440

BHP GAUGE DEPTH = 6425

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	10:30	1284.9				1284.9		3521.8
	10:35	1320.5	0.9	259.2	4.013	1316.5	7.56	3584.7
	10:40	1324.8	1.8	259.2	4.013	1320.8	7.56	3626.7
	10:45	1309.3	2.7	259.2	4.013	1305.3	7.56	3659.9
	10:50	1313.7	3.6	259.2	4.013	1309.7	7.56	3690.1
	10:55	1302.3	4.5	259.2	4.013	1298.3	7.56	3714.0
	11:00	1288.0	5.4	259.2	4.013	1284.0	7.56	3739.2
				259.2				
	11:05	1268.6	7.1	489.6	13.016	1255.6	14.28	3795.2
	11:10	1252.5	8.9	518.4	14.468	1238.0	15.12	3835.5
2	11:15	1224.0	10.6	489.6	13.016	1211.0	14.28	3869.2
	11:20	1187.0	12.4	518.4	14.468	1172.5	15.12	3901.1
	11:25	1144.3	14.0	460.8	11.635	1132.7	13.44	3924.8
	11:30	1097.4	15.7	489.6	13.016	1084.4	14.28	3948.5
				494.4				
	11:35	1098.7	18.4	777.6	30.633	1068.1	22.68	4000.8
	11:40	1058.9	21.2	806.4	32.765	1026.1	23.52	4035.0
	11:45	1073.2	23.7	720.0	26.568	1046.6	21.00	4068.1
	11:50	1080.2	26.3	748.8	28.567	1051.6	21.84	4097.2
	11:55	1110.1	28.9	748.8	28.567	1081.5	21.84	4122.2
3	12:00	1111.6	31.5	748.8	28.567	1083.0	21.84	4145.0
				758.4				
	12:05	1216.9	35.1	1036.8	52.158	1164.7	30.24	4188.4
	12:10	1232.6	38.8	1065.6	54.870	1177.7	31.08	4218.7
	12:15	1259.6	42.3	1008.0	49.509	1210.1	29.40	4245.0
	12:20	1282.3	45.9	1036.8	52.158	1230.1	30.24	4270.0
	12:25	1306.5	49.8	1123.2	60.483	1246.0	32.76	4294.7
	12:30	1307.9	53.1	950.4	44.403	1263.5	27.72	4311.8
				1036.8				

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	12:35	1454.5	58.1	1440.0	95.776	1358.7	42.00	4350.7
	12:40	1474.4	63.1	1440.0	95.776	1378.6	42.00	4377.9
	12:45	1494.2	68.2	1468.8	99.350	1394.9	42.84	4400.6
	12:50	1509.9	73.2	1440.0	95.776	1414.1	42.00	4418.5
	12:55	1525.5	78.2	1440.0	95.776	1429.7	42.00	4435.4
	1:00	1536.8	83.3	1468.8	99.350	1437.5	42.84	4446.9
				1449.6				
	1:05	1679.1	89.6	1814.4	146.873	1532.2	52.92	4475.3
	1:10	1686.2	96.0	1843.2	151.215	1535.0	53.76	4493.7
	1:15	1706.1	102.4	1843.2	151.215	1554.9	53.76	4506.3
6	1:20	1716.0	108.7	1814.4	146.873	1569.1	52.92	4519.0
	1:25	1718.8	115.1	1843.2	151.215	1567.6	53.76	4528.7
	1:30	1733.0	121.4	1814.4	146.873	1586.1	52.92	4538.3
				1828.8				
	FALLOFF							
	1:31	1384.5				1384.5		4513.6
	1:32	1371.7				1371.7		4503.6
	1:33	1364.6				1364.6		4495.9
	1:34	1360.3				1360.3		4488.0
	1:35	1354.6				1354.6		4481.2
	1:40	1336.1				1336.1		4452.2
	1:45	1321.8				1321.8		4430.1

WEST DOLLARHIDE DRINKARD UNIT #21



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 29, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 21
LEA COUNTY, NEW MEXICO

WO#: 94-14-1418

PERFS =

PACKER DEPTH = 6585

BHP GAUGE DEPTH = 6485

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	9:15	898.1				898.1		3940.5
	9:20	919.5	1.0	288.0	4.923	914.6	8.40	3952.7
	9:25	943.8	2.0	288.0	4.923	938.9	8.40	3962.3
	9:30	942.4	3.0	288.0	4.923	937.5	8.40	3971.3
	9:35	952.4	4.0	288.0	4.923	947.5	8.40	3978.6
	9:40	963.7	4.9	259.2	4.051	959.6	7.56	3988.6
	9:45	952.3	5.9	288.0	4.923	947.4	8.40	3994.2
				283.2				
	9:50	1019.1	8.2	662.4	22.982	996.1	19.32	4019.3
	9:55	1044.7	10.5	662.4	22.982	1021.7	19.32	4040.2
2	10:00	1048.9	12.8	662.4	22.982	1025.9	19.32	4057.5
	10:05	1056.0	15.1	662.4	22.982	1033.0	19.32	4074.1
	10:10	1073.1	17.3	633.6	21.168	1051.9	18.48	4085.7
	10:15	1088.7	19.6	662.4	22.982	1065.7	19.32	4098.8
				657.6				
	10:20	1174.0	23.3	1065.6	55.382	1118.6	31.08	4121.6
	10:25	1191.1	27.1	1094.4	58.183	1132.9	31.92	4142.2
	10:30	1198.2	30.8	1065.6	55.382	1142.8	31.08	4158.8
	10:35	1216.6	34.5	1065.6	55.382	1161.2	31.08	4173.8
	10:40	1225.2	38.2	1065.6	55.382	1169.8	31.08	4182.4
3	10:45	1233.7	41.9	1065.6	55.382	1178.3	31.08	4196.8
				1070.4				
	10:50	1365.9	47.2	1526.4	107.674	1258.2	44.52	4220.0
	10:55	1387.2	52.5	1526.4	107.674	1279.5	44.52	4233.5
	11:00	1395.7	57.7	1497.6	103.945	1291.8	43.68	4248.0
	11:05	1400.0	63.0	1526.4	107.674	1292.3	44.52	4257.8
	11:10	1402.8	68.3	1526.4	107.674	1295.1	44.52	4267.4
	11:15	1411.4	73.6	1526.4	107.674	1303.7	44.52	4277.1
				1521.6				

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	11:20	1603.4	80.7	2044.8	184.938	1418.5	59.64	4295.8
	11:25	1603.4	87.7	2016.0	180.148	1423.3	58.80	4305.2
	11:30	1611.9	94.8	2044.8	184.938	1427.0	59.64	4314.9
	11:35	1619.1	101.8	2016.0	180.148	1439.0	58.80	4323.2
	11:40	1623.4	108.8	2016.0	180.148	1443.3	58.80	4327.5
	11:45	1627.7	115.8	2016.0	180.148	1447.6	58.80	4334.9
				2025.6				
	11:50	1835.4	124.5	2505.6	269.345	1566.1	73.08	4353.4
	11:55	1843.9	133.2	2505.6	269.345	1574.6	73.08	4359.3
	12:00	1849.5	141.9	2505.6	269.345	1580.2	73.08	4365.6
6	12:05	1860.9	150.7	2534.4	275.101	1585.8	73.92	4372.3
	12:10	1858.0	159.4	2505.6	269.345	1588.7	73.08	4379.1
	12:15	1869.4	168.1	2505.6	269.345	1600.1	73.08	4381.8
				2510.4				
FALLOFF	12:16	1236.4				1236.4		4350.5
	12:17	1240.7				1240.7		4348.2
	12:18	1239.2				1239.2		4346.9
	12:19	1239.2				1239.2		4343.9
	12:20	1239.2				1239.2		4342.2
	12:25	1236.4				1236.4		4332.2
	12:30	1233.6				1233.6		4324.4