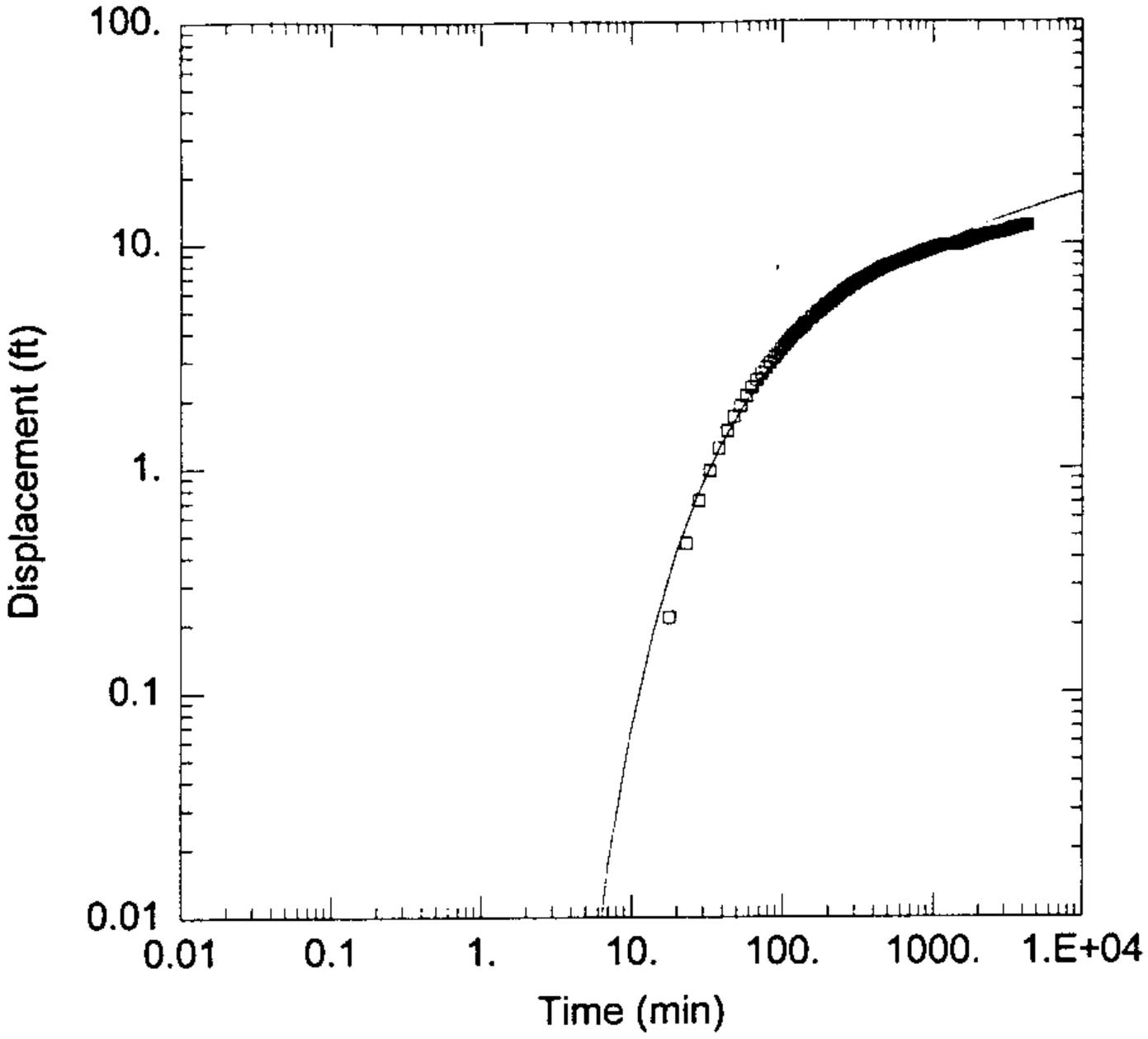

WELL 16 PUMPING TEST

Data Set: P:\...\well16 pumping well d theis visual.aqt
Date: 09/07/01 Time: 09:10:54

PROJECT INFORMATION

Company: Parsons ES
Client: Camp Stanley Storage Activity
Project: 728487.03
Test Location: Boerne, Texas
Test Well: Well 16
Test Date: 8/6/01 - 8/9/01

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Well 16	2.091E+006	1.381E+007

Observation Wells

Well Name	X (ft)	Y (ft)
Well D	2.09E+006	1.381E+007

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 1647.1 gal/day/ft
Kz/Kr = 1.
S = 7.757E-05
b = 177.8 ft

Data Set: P:\DOCUMENT\728487 cssa\pump test\well 16 pump test\well16 pumping well d theis visual.aqt
Title: Well 16 Pumping Test
Date: 09/07/01
Time: 09:11:03

PROJECT INFORMATION

Company: Parsons ES
Client: Camp Stanley Storage Activity
Project: 728487.03
Location: Boerne, Texas
Test Date: 8/6/01 - 8/9/01
Test Well: Well 16

AQUIFER DATA

Saturated Thickness: 177.8 ft
Anisotropy Ratio (Kz/Kr): 1.

PUMPING WELL DATA

Number of pumping wells: 1

Pumping Well No. 1: Well 16

X Location: 2.091E+06 ft
Y Location: 1.381E+07 ft

Partially Penetrating Well
Depth To Top Of Screen: 0. ft
Depth To Bottom Of Screen: 154.8 ft

No. of pumping periods: 1

Pumping Period Data

Time (min)	Rate (gal/min)
0.	45.

OBSERVATION WELL DATA

Number of observation wells: 1

Observation Well No. 1: Well D

X Location: 2.09E+06 ft
Y Location: 1.381E+07 ft

Partially Penetrating Well
Depth To Top Of Screen: 5.51 ft
Depth To Bottom Of Screen: 63.51 ft

No. of observations: 315

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
13.	0.	1753.	10.33
18.	0.216	1773.	10.36
23.	0.4625	1778.	10.37
28.	0.714	1793.	10.4

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
33.	0.9685	1813.	10.43
38.	1.219	1828.	10.45
43.	1.458	1833.	10.45
48.	1.684	1853.	10.47
53.	1.896	1873.	10.49
58.	2.095	1893.	10.51
63.	2.287	1898.	10.52
68.	2.464	1913.	10.54
73.	2.635	1933.	10.56
78.	2.794	1953.	10.58
83.	2.95	1963.	10.59
88.	3.098	1973.	10.6
93.	3.239	1993.	10.62
98.	3.379	2013.	10.64
103.	3.511	2033.	10.65
108.	3.639	2043.	10.66
113.	3.765	2053.	10.66
118.	3.886	2073.	10.68
123.	4.	2093.	10.7
128.	4.113	2113.	10.72
133.	4.218	2123.	10.72
138.	4.324	2133.	10.73
143.	4.425	2153.	10.76
153.	4.617	2173.	10.78
158.	4.709	2193.	10.79
168.	4.883	2198.	10.8
173.	4.968	2213.	10.81
178.	5.049	2233.	10.83
188.	5.206	2253.	10.85
193.	5.279	2268.	10.86
198.	5.353	2273.	10.86
208.	5.499	2293.	10.88
213.	5.572	2313.	10.9
218.	5.643	2333.	10.92
228.	5.786	2343.	10.93
233.	5.856	2353.	10.93
238.	5.922	2373.	10.95
248.	6.051	2393.	10.96
253.	6.111	2413.	10.98
258.	6.17	2423.	11.
268.	6.286	2433.	11.
273.	6.341	2453.	11.02
278.	6.397	2473.	11.03
288.	6.503	2493.	11.05
293.	6.551	2508.	11.06
298.	6.602	2513.	11.05
313.	6.739	2533.	11.07
318.	6.78	2553.	11.08
333.	6.902	2573.	11.09
338.	6.939	2593.	11.09
353.	7.058	2613.	11.11
358.	7.097	2618.	11.11
373.	7.21	2633.	11.12
378.	7.245	2653.	11.12
393.	7.351	2673.	11.13
398.	7.382	2693.	11.14
413.	7.476	2713.	11.15
418.	7.509	2733.	11.16

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
433.	7.601	2743.	11.16
438.	7.631	2753.	11.16
453.	7.718	2773.	11.17
458.	7.743	2793.	11.17
473.	7.819	2813.	11.18
478.	7.842	2833.	11.19
493.	7.922	2853.	11.19
498.	7.947	2863.	11.2
513.	8.017	2873.	11.2
518.	8.041	2893.	11.21
533.	8.108	2913.	11.23
538.	8.132	2933.	11.24
553.	8.194	2953.	11.26
563.	8.23	2958.	11.26
573.	8.271	2973.	11.27
588.	8.327	2993.	11.28
593.	8.345	3013.	11.31
613.	8.411	3033.	11.32
618.	8.427	3038.	11.32
633.	8.48	3053.	11.34
648.	8.525	3073.	11.36
653.	8.541	3093.	11.37
673.	8.601	3113.	11.39
678.	8.615	3118.	11.4
693.	8.659	3133.	11.41
713.	8.713	3153.	11.43
718.	8.727	3173.	11.45
733.	8.771	3193.	11.46
753.	8.826	3198.	11.47
758.	8.841	3213.	11.48
773.	8.879	3233.	11.5
788.	8.929	3253.	11.51
793.	8.945	3273.	11.54
813.	9.021	3278.	11.54
818.	9.035	3293.	11.55
833.	9.084	3313.	11.56
848.	9.131	3333.	11.58
853.	9.149	3353.	11.6
873.	9.204	3358.	11.6
878.	9.221	3373.	11.62
893.	9.258	3393.	11.63
913.	9.283	3413.	11.65
933.	9.273	3433.	11.66
953.	9.265	3448.	11.66
968.	9.347	3453.	11.67
973.	9.409	3473.	11.68
983.	9.45	3493.	11.69
993.	9.482	3513.	11.69
1013.	9.534	3533.	11.7
1018.	9.546	3548.	11.72
1033.	9.576	3553.	11.72
1053.	9.617	3573.	11.73
1063.	9.633	3593.	11.74
1073.	9.652	3613.	11.75
1093.	9.688	3633.	11.76
1113.	9.717	3643.	11.77
1118.	9.724	3653.	11.78
1133.	9.751	3673.	11.79

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1153.	9.778	3693.	11.81
1173.	9.803	3713.	11.82
1178.	9.807	3733.	11.83
1193.	9.816	3738.	11.83
1213.	9.828	3753.	11.83
1233.	9.822	3773.	11.85
1253.	9.825	3793.	11.85
1273.	9.815	3813.	11.87
1293.	9.812	3833.	11.88
1313.	9.803	3838.	11.89
1333.	9.793	3853.	11.9
1353.	9.79	3873.	11.91
1373.	9.789	3893.	11.92
1393.	9.791	3913.	11.93
1403.	9.797	3933.	11.93
1413.	9.806	3948.	11.94
1433.	9.826	3953.	11.94
1453.	9.845	3973.	11.95
1473.	9.867	3993.	11.95
1478.	9.872	4013.	11.96
1493.	9.89	4033.	11.97
1513.	9.918	4053.	11.98
1533.	9.945	4063.	11.98
1538.	9.953	4073.	11.99
1553.	9.973	4093.	12.
1573.	10.	4113.	12.
1588.	10.03	4133.	12.01
1593.	10.04	4153.	12.01
1613.	10.08	4173.	12.01
1633.	10.11	4193.	12.02
1638.	10.12	4203.	12.02
1653.	10.15	4213.	12.02
1673.	10.19	4233.	12.02
1683.	10.21	4253.	12.02
1693.	10.23	4273.	12.03
1713.	10.26	4293.	12.04
1728.	10.29	4313.	12.04
1733.	10.29		

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
T	1647.1	gal/day/ft
S	7.757E-05	
Kz/Kr	1.	
b	177.8	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
T	1647.1	18.42	gal/day/ft
S	7.757E-05	1.205E-06	
Kz/Kr	1.	not estimated	
b	177.8	not estimated	ft

Parameter Correlations

	T	S
T	1.00	-0.95
S	-0.95	1.00

Residual Statistics

for weighted residuals

Sum of Squares . . . . . 33.28 ft^2
Variance . . . . . 0.1063 ft^2
Std. Deviation . . . . . 0.3261 ft
Mean . . . . . -0.01002 ft
No. of Residuals. . . . . 315.
No. of Estimates. 2