Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-721L_FHT_BUTLER.aqt
Title: OW-721 L FALLING HEAD TEST 5-15-08
Date: 06/08/16
Time: 11:43:22

PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Date: 5-16-08
Test Well: OW-721 L

AQUIFER DATA

Saturated Thickness: 90. ft
Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: OW-721 L

X Location: 0. ft
Y Location: 0. ft

Initial Displacement: 2.451 ft
Static Water Column Height: 110. ft
Casing Radius: 0.083 ft
Well Radius: 0.25 ft
Well Skin Radius: 0.25 ft
Screen Length: 17. ft
Total Well Penetration Depth: 109. ft

No. of Observations: 39

Observation Data

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.451	115.7	0.175
3.18	1.824	125.3	0.167
6.54	1.613	136.1	0.142
10.14	1.423	147.5	0.135
13.74	1.271	159.5	0.12
17.94	1.126	172.1	0.119
22.14	1.001	185.3	0.112
26.34	0.899	199.7	0.102
31.14	0.799	214.7	0.099
36.54	0.702	230.3	0.099
41.34	0.634	247.1	0.096
47.34	0.55	265.1	0.091
53.34	0.477	283.7	0.09
59.34	0.424	304.1	0.095
65.94	0.372	325.1	0.088
73.14	0.325	347.3	0.089

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
80.94	0.289	371.3	0.09
88.74	0.253	396.5	0.092
97.14	0.229	422.9	0.091
106.1	0.197		

SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Butler
Log Factor: 0.2036

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	2.726	ft/day
Le	0.1	ft

K = 0.0009617 cm/sec
T = K*b = 245.3 ft²/day (2.638 sq. cm/sec)
Le = 0.1 ft
Solution is critically damped when C(D) = 2.

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	2.726	0.1442	+/- 0.2921	18.91	ft/day
Le	0.1	1226.	+/- 2483.9	8.157E-5	ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

K = 0.0009617 cm/sec
T = K*b = 245.3 ft²/day (2.638 sq. cm/sec)
Le = 0.1 ft
Solution is critically damped when C(D) = 2.

Parameter Correlations

	K	Le
K	1.00	0.15
Le	0.15	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.7973 ft^2

Variance ..... 0.02155 ft^2
Std. Deviation ..... 0.1468 ft
Mean ..... 0.05096 ft
No. of Residuals .. 39
No. of Estimates .. 2