

Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-706U_FHT_SPRINGER-GELHAR.a
 Title: OW-706 U FALLING HEAD TEST 5-16-08
 Date: 06/08/16
 Time: 11:27:40

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Date: 5-16-08
 Test Well: OW-706 U

AQUIFER DATA

Saturated Thickness: 30.66 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: OW-706 U

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

Initial Displacement: 0.941 ft
 Static Water Column Height: 28.46 ft
 Casing Radius: 0.083 ft
 Well Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15.5 ft
 Total Well Penetration Depth: 28.9 ft

No. of Observations: 52

<u>Observation Data</u>			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	0.941	116.9	0.031
2.04	0.033	125.9	0.026
4.14	0.115	135.5	0.029
6.36	0.111	145.1	0.021
8.76	0.087	155.9	0.022
11.28	0.096	167.3	0.021
13.92	0.091	179.3	0.02
16.74	0.083	191.9	0.02
19.74	0.083	205.1	0.017
22.92	0.079	219.5	0.017
26.28	0.08	234.5	0.017
29.88	0.074	250.1	0.014
33.48	0.072	266.9	0.016
37.68	0.066	284.9	0.013
41.88	0.064	303.5	0.006
46.08	0.045	323.9	0.009

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
50.88	0.058	344.9	0.007
56.33	0.058	367.1	0.007
61.08	0.05	391.1	0.005
67.08	0.048	416.3	0.006
73.08	0.045	442.7	0.006
79.08	0.044	470.9	0.003
85.68	0.041	500.9	0.
92.88	0.044	532.7	-0.001
100.7	0.039	566.3	-0.003
108.5	0.033	602.3	-0.001

SOLUTION

Slug Test

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

ln(Re/rw): 3.287

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	83.78	ft/day
Le	0.1	ft

K = 0.02956 cm/sec

T = K*b = 2568.7 ft²/day (27.62 sq. cm/sec)

Le = 0.1 ft

Solution is critically damped when C(D) = 2.

AUTOMATIC ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	<u>Std. Error</u>	<u>Approx. C.I.</u>	<u>t-Ratio</u>	
K	83.78	23.08	+/- 46.37	3.63	ft/day
Le	0.1	71.6	+/- 143.8	0.001397	ft

C.I. is approximate 95% confidence interval for parameter

t-ratio = estimate/std. error

No estimation window

K = 0.02956 cm/sec

T = K*b = 2568.7 ft²/day (27.62 sq. cm/sec)

Le = 0.1 ft

Solution is critically damped when C(D) = 2.

Parameter Correlations

	<u>K</u>	<u>Le</u>
K	1.00	-0.96
Le	-0.96	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.1447 ft²
Variance 0.002894 ft²
Std. Deviation..... 0.0538 ft
Mean..... 0.03303 ft
No. of Residuals .. 52
No. of Estimates .. 2