

Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-721U_RHT_SPRINGER-GELHAR_
 Title: OW-721 U RISING HEAD 5-20-08
 Date: 06/08/16
 Time: 13:08:20

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Date: 5-20-08
 Test Well: OW-721 U

AQUIFER DATA

Saturated Thickness: 24.37 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: OW-721 U

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

Initial Displacement: 10.88 ft
 Static Water Column Height: 24.37 ft
 Casing Radius: 0.083 ft
 Well Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 16.1 ft
 Total Well Penetration Depth: 26. ft

No. of Observations: 44

<u>Observation Data</u>			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	10.88	11.07	0.169
0.221	9.815	12.04	0.152
0.441	8.698	12.99	0.155
0.661	7.787	14.07	0.158
0.883	7.078	15.22	0.15
1.115	6.43	16.41	0.149
1.475	5.567	17.68	0.15
1.835	4.863	19.	0.143
2.255	4.129	20.43	0.148
2.675	3.494	21.93	0.145
3.095	2.973	23.5	0.148
3.575	2.447	25.18	0.149
4.115	1.966	26.98	0.144
4.595	1.599	28.84	0.144
5.195	1.234	30.88	0.146
5.795	0.942	32.98	0.147

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
6.395	0.71	35.2	0.148
7.055	0.53	37.59	0.145
7.775	0.381	40.12	0.144
8.555	0.278	42.76	0.147
9.335	0.219	45.58	0.148
10.18	0.187	48.58	0.124

SOLUTION

Slug Test

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

ln(Re/rw): 3.501

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	24.39	ft/day
Le	0.1	ft

K = 0.008606 cm/sec

T = K*b = 594.5 ft²/day (6.392 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	24.39	0.3091	+/- 0.6238	78.91	ft/day
Le	0.1	1.812	+/- 3.656	0.0552	ft

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

t-ratio = estimate/std. error

No estimation window

K = 0.008606 cm/sec

T = K*b = 594.5 ft²/day (6.392 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	0.21
Le	0.21	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.9958 ft²
Variance 0.02371 ft²
Std. Deviation 0.154 ft
Mean 0.0507 ft
No. of Residuals .. 44
No. of Estimates .. 2