

Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-621U_RHT_SPRINGER-GELHAR.a
 Title: OW-621 U RISING HEAD TEST
 Date: 06/08/16
 Time: 10:12:32

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Date: 5-20-08
 Test Well: OW-621 U

AQUIFER DATA

Saturated Thickness: 27.56 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: OW-621 U

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

Initial Displacement: 10.56 ft
 Static Water Column Height: 27.56 ft
 Casing Radius: 0.083 ft
 Well Radius: 0.3 ft
 Well Skin Radius: 0.3 ft
 Screen Length: 15.6 ft
 Total Well Penetration Depth: 30. ft

No. of Observations: 60

<u>Time (sec)</u>	<u>Observation Data</u>		<u>Displacement (ft)</u>
	<u>Displacement (ft)</u>	<u>Time (sec)</u>	
0.	10.57	46.56	0.154
0.6	6.193	49.92	0.161
1.2	2.664	53.52	0.162
1.86	0.47	57.12	0.157
2.58	-0.302	61.32	0.155
3.36	-0.189	65.52	0.156
4.14	0.229	69.72	0.155
4.98	0.562	74.52	0.155
5.88	0.501	79.92	0.161
6.84	0.155	84.72	0.153
7.8	-0.003	90.72	0.156
8.88	0.137	96.72	0.152
10.02	0.338	102.7	0.143
11.22	0.28	109.3	0.149
12.48	0.122	116.5	0.147
13.8	0.155	124.3	0.145

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
15.24	0.255	132.1	0.151
16.74	0.206	140.5	0.149
18.3	0.153	149.5	0.145
20.04	0.204	159.1	0.148
21.8	0.184	168.7	0.152
23.64	0.161	179.5	0.152
25.68	0.192	190.9	0.153
27.78	0.168	202.9	0.154
30.	0.178	215.5	0.153
32.4	0.166	228.7	0.15
34.92	0.169	243.1	0.156
37.56	0.165	258.1	0.157
40.38	0.166	273.7	0.158
43.38	0.161	290.5	0.158

SOLUTION

Slug Test

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

ln(Re/rw): 3.437

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	68.89	ft/day
Le	7.075	ft

K = 0.0243 cm/sec

T = K*b = 1898.6 ft²/day (20.41 sq. cm/sec)

Le = 7.075 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	68.89	2.073	+/- 4.15	33.23	ft/day
Le	7.075	0.7308	+/- 1.463	9.682	ft

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

t-ratio = estimate/std. error

No estimation window

K = 0.0243 cm/sec

T = K*b = 1898.6 ft²/day (20.41 sq. cm/sec)

Le = 7.075 ft

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

Parameter Correlations

	<u>K</u>	<u>Le</u>
K	1.00	0.07
Le	0.07	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 2.366 ft²
Variance 0.0408 ft²
Std. Deviation 0.202 ft
Mean 0.1521 ft
No. of Residuals .. 60
No. of Estimates .. 2