

Data Set: Z:\GW Data Steward Working Area\Caloosahatchee River Seepage\Caloosahatchee Well Drawdown Re

Title: Caloosahatchee River Seepage Project

Date: 06/15/16

Time: 14:56:58

### PROJECT INFORMATION

Company: SFWMD

Client: SFWMD

Test Date: 8/10/1999

Test Well: CRS02NM

### AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 0.25

### SLUG TEST WELL DATA

Test Well: CRS02NM

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 7.001 ft

Static Water Column Height: 55.19 ft

Casing Radius: 0.0833 ft

Well Radius: 0.25 ft

Well Skin Radius: 0.25 ft

Screen Length: 5. ft

Total Well Penetration Depth: 55.19 ft

Corrected Casing Radius (Bouwer-Rice Method): 0.0833 ft

Gravel Pack Porosity: 0.

No. of Observations: 127

Observation Data			
<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.0162	6.909	3.796	1.062
0.0323	6.639	4.019	1.03
0.0485	6.388	4.255	1.001
0.0647	6.156	4.504	0.969
0.0808	5.937	4.769	0.943
0.097	5.738	5.049	0.916
0.1132	5.554	5.346	0.89
0.1293	5.382	5.661	0.861
0.1455	5.219	5.994	0.834
0.1617	5.067	6.347	0.808
0.1778	4.918	6.721	0.782
0.194	4.781	7.117	0.757
0.2102	4.649	7.536	0.734
0.2263	4.523	7.98	0.707
0.2425	4.405	8.451	0.678
0.2587	4.291	8.949	0.651

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.2748	4.184	9.477	0.629
0.291	4.083	10.04	0.607
0.3072	3.985	10.63	0.583
0.3233	3.89	11.26	0.561
0.34	3.796	11.92	0.534
0.3577	3.711	12.63	0.515
0.3763	3.623	13.37	0.498
0.3962	3.537	14.16	0.479
0.4172	3.446	15.	0.456
0.4393	3.358	15.88	0.437
0.4628	3.27	16.82	0.417
0.4877	3.182	17.82	0.395
0.514	3.094	18.82	0.375
0.542	3.008	19.82	0.359
0.5717	2.924	20.82	0.339
0.603	2.874	21.82	0.323
0.6362	2.747	22.82	0.31
0.6713	2.66	23.82	0.3
0.7087	2.581	24.82	0.29
0.7482	2.499	25.82	0.283
0.79	2.416	26.82	0.274
0.8343	2.341	27.82	0.265
0.8813	2.268	28.82	0.25
0.9312	2.196	29.82	0.244
0.9838	2.128	30.82	0.238
1.04	2.063	31.82	0.224
1.099	1.999	32.82	0.221
1.162	1.94	33.82	0.219
1.228	1.881	34.82	0.213
1.298	1.826	35.82	0.203
1.373	1.773	36.82	0.195
1.452	1.723	37.82	0.187
1.535	1.673	38.82	0.186
1.624	1.624	39.82	0.174
1.718	1.58	40.82	0.167
1.817	1.536	41.82	0.167
1.922	1.49	42.82	0.161
2.034	1.447	43.82	0.154
2.152	1.408	44.82	0.151
2.277	1.369	45.82	0.151
2.41	1.332	46.82	0.141
2.55	1.296	47.82	0.134
2.699	1.261	48.82	0.13
2.857	1.226	49.82	0.13
3.023	1.193	50.82	0.13
3.2	1.157	51.82	0.13
3.388	1.122	52.82	0.121
3.586	1.091		

SOLUTION

Slug Test  
 Aquifer Model: Confined

Solution Method: Butler-Zhan

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
Kr	1.761	ft/day
Ss	0.002	ft <sup>-1</sup>
Kz/Kr	0.25	
Le	1000.	ft

K = 0.0006211 cm/sec

T = K\*b = 88.03 ft<sup>2</sup>/day (0.9465 sq. cm/sec)

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
Kr	1.761	0.1324	+/- 0.262	13.3	ft/day
Ss	0.002	0.0004088	+/- 0.0008091	4.892	ft <sup>-1</sup>
Kz/Kr	0.25	not estimated			
Le	1000.	238.5	+/- 472.1	4.192	ft

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

t-ratio = estimate/std. error

No estimation window

K = 0.0006211 cm/sec

T = K\*b = 88.03 ft<sup>2</sup>/day (0.9465 sq. cm/sec)

Parameter Correlations

	Kr	Ss	Le
Kr	1.00	-0.95	-0.08
Ss	-0.95	1.00	0.06
Le	-0.08	0.06	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 8.362 ft<sup>2</sup>  
 Variance ..... 0.06743 ft<sup>2</sup>  
 Std. Deviation ..... 0.2597 ft  
 Mean ..... 0.1222 ft  
 No. of Residuals .. 127  
 No. of Estimates .. 3

NOTES

Estimated thickness of water table aquifer - 30 feet

Estimated thickness of Lower Tamiami Aquifer - 50 feet leaky confined