

**Table 3**  
**Pumping Test Summary and Estimated Aquifer Parameters**

	ANALYTICAL (COOPER-JACOB) METHOD						NUMERICAL (MODFLOW) METHOD			
	Pond Production	Cluster B Shallow	Cluster B Intermediate	Cluster B Deep	Domestic	Tower	Pond Production	Cluster B Shallow	Cluster B Intermediate	Cluster B Deep
Distance from Pond Well, r (feet)	0	24.2	22.2	21.6	375	404				
Screen Interval (feet-bgs)	42-202	37-47	94-104	159-179	20-80	?-160?				
Static Water Level (feet TOC) <sup>1</sup>	24.9	25.7	24.4	24.5	18.06	13.77				
s (feet) <sup>2</sup>		1.7	4.4	4.6						
effective sand (ft) <sup>3</sup>	98.7	20.0	12.9	23.0						
total sand (ft)	98.7	55.9								
effective sand (% of total sand)	100%	56.6%								
% effective sand	100%	20%	13%	23%						
Discharge, Q, (gpm) <sup>4</sup>	300	61	39	70			300	85	25	100
Transmissivity, T (feet <sup>2</sup> /day) <sup>5</sup>	3730	1262	315	536			4870	2060	168	529
Horizontal Hydraulic Conductivity, K <sub>H</sub> (feet/day) <sup>6</sup>	40	63	24	23				103	13	23
Vertical Hydraulic Conductivity, K <sub>v</sub> (feet/day)								0.057	0.006	
Storativity, S (unitless) <sup>7</sup>		1.09E-03	9.94E-05	1.79E-05				7.4E10-4	1.70E-04	1.30E-04

<sup>1</sup> Static water level for Pond Production Well was estimated based on average of three Cluster B wells

<sup>2</sup>= slope of the difference in drawdown (or recovery) graph expressed as the change in drawdown between any two values of distance on the log scale whose ratio is 10

<sup>3</sup> = vertical distance over 1 log cycle on time-drawdown and recovery plots

<sup>4</sup> Discharge for Cluster B wells estimated from sand thicknesses compared to Pond Production Well (analytical method) and adjusted during model calibration (numerical method)

<sup>5</sup> = (264 Q / s) / 7.48 (analytical method); T value for Pond Production well equals sum of Cluster well T values divided by .566 (analytical and numerical method)

<sup>6</sup> = T / b, where b = effective sand thickness (analytical method)

<sup>7</sup> = 0.3T t<sub>0</sub> / r<sup>2</sup>, where t<sub>0</sub> = intercept of straight line at zero drawdown (days) on time-drawdown and time-recovery plots (analytical method)

average to value from drawdown and recovery plots used for B-Shallow