Radii need to be corrected because the tank is only half of a radial flow problem while the equations use the rc to represent volume of water given delta h and R to represent flow area into the formation. Le/R will use actual R because this only influences flow geometry

actual ~bore radius	actual rc	4.90	cm
modified to represent semicircle as area for	corrected rc = sqrt((actual rc)^2/2)	3.46	cm
actual ~effective screen radius	actual R	4.90	cm
modified to represent semiarc as length for calculating flow area	corrected R = actual R/2	2.45	cm
effective length	Le	6.00	cm
	Le/R	1.22	
distance initial water level to bottom of screen	Lw	30.00	cm
saturated thickness			

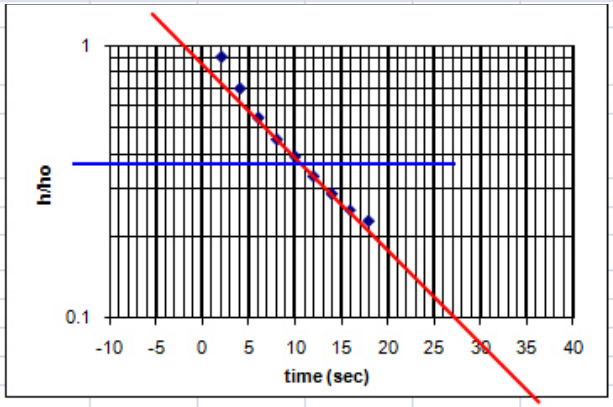
Bouwer and Rice C from graph: 0.5

ln(Re/R): 1.18

$$for\ L_w = h\ \ln\left(\frac{R_e}{R}\right) = \left[\frac{1.1}{\ln\left(\frac{L_w}{R}\right)} + \frac{C}{\frac{L_e}{R}}\right]^{-1}$$

$$K = \frac{r^2 \ln\left(\frac{L_e}{R}\right)}{2\,L_e\,T_o}$$

Seconds	Head above initial water level	h/h0
0	6.6	
2	6	0.91
4	4.6	0.70
6	3.6	0.55
8	3	0.45
10	2.6	0.39
12	2.2	0.33
14	1.9	0.29
16	1.65	0.25
18	1.5	0.23



37% left to recover: 11 sec

time for 1 log cycle: 29 sec

NOTE: Assumptions Broken

Hvorslev

K 0.08 cm/sec

NOTE: extrapolation of C

Bouwer and Rice

K 0.09 cm/sec

Values if rc and R are not corrected: 0.04 / 0.16

$$K = \frac{r_c^2 \ln\left(\frac{R_e}{R}\right)}{2\,L_e} \frac{1}{t} \ln\left(\frac{H_o}{H_t}\right)$$

constant head side underestimates K

K from previous steady state pump test = 0.07 cm/sec

no-flow side overestimates K

K from previous steady state pump test = 0.1 cm/sec