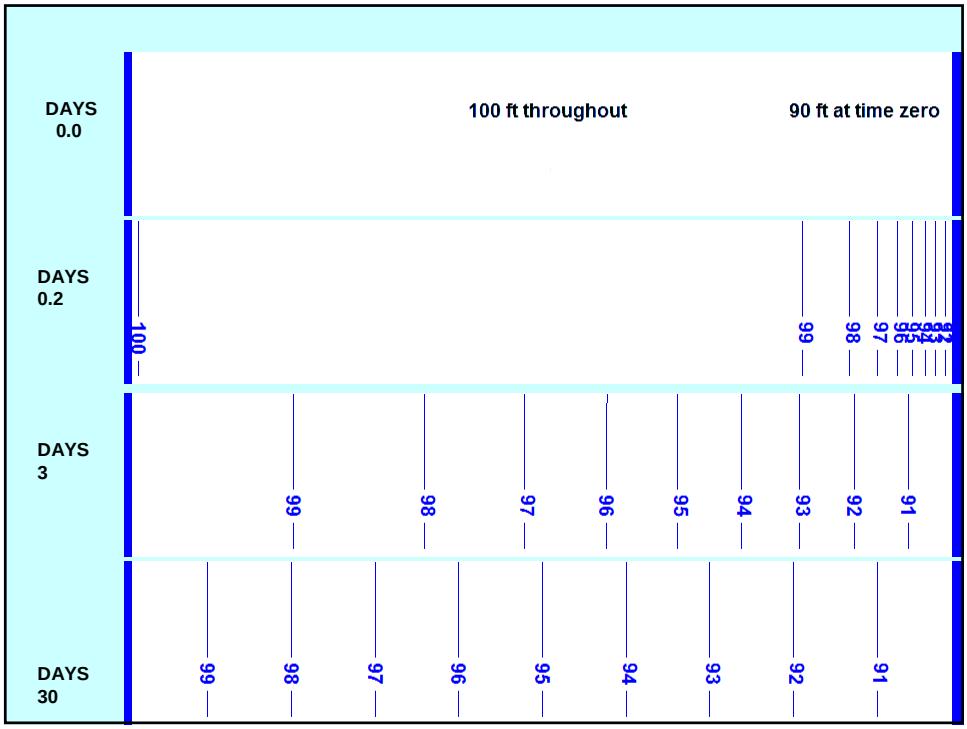
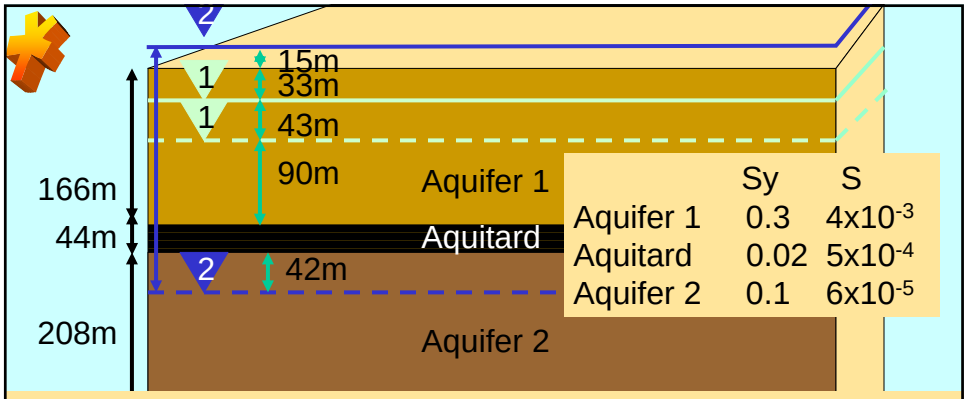




Aquifer 1 = Vol = $[\Delta h_{uncf} * SY] + [\Delta h_{uncf}$ (avg thickness) $S_s]$

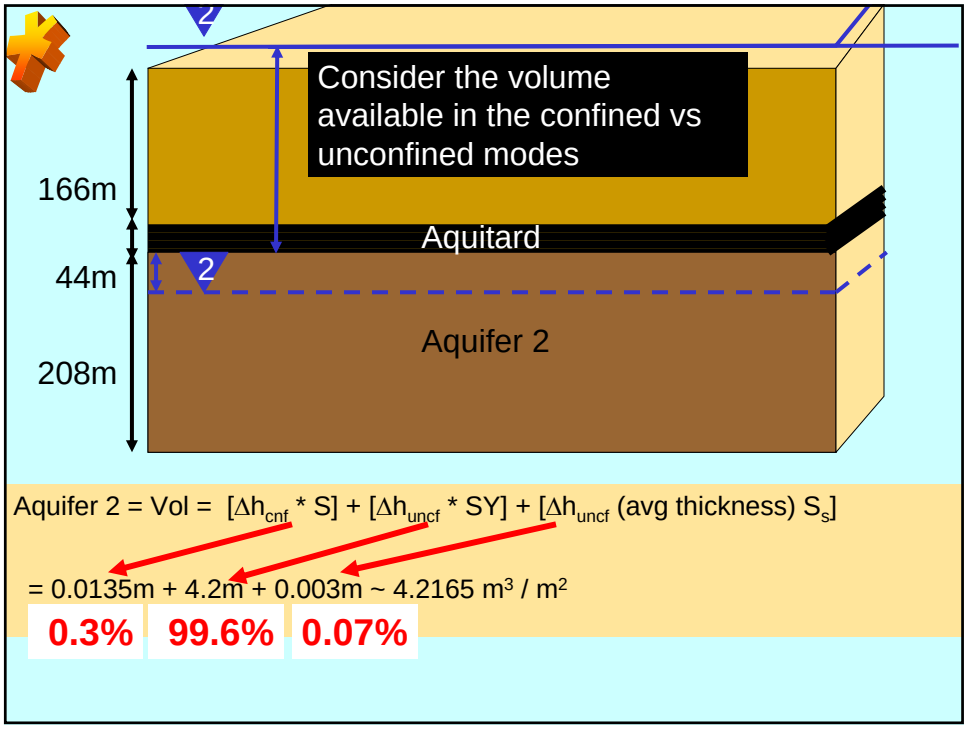
$= \left[43m * 0.3\right] + \left[43m * (90+(43/2))m * \frac{4x10^{-3}}{(90+43)}\right] = \frac{12.9m^3 + 0.144\ m^3}{m^2} \sim \frac{13m^3}{m^2}$

$13m^3 / m^2 \sim 13{,}000{,}000m^3/km^2 \sim 10{,}500ACFT$

Aquifer 2 = Vol = $[\Delta h_{cnf} * S] + [\Delta h_{uncf} * SY] + [\Delta h_{uncf}$ (avg thickness) $S_s]$

$= \left[(15+166+44)m * 6x10^{-5}\right] + \left[42m * 0.1\right] + \left[42m * (208-42/2)m * \frac{6x10^{-5}}{208\ m}\right]$

$= 0.0135m + 4.2m + 0.003m \sim 4.2165\ m^3 / m^2 \sim 4{,}000{,}000m^3/km^2 \sim 3{,}200ACFT$



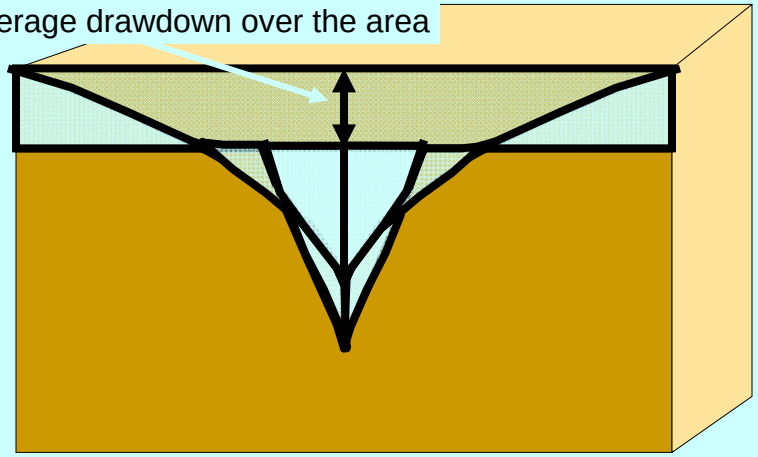
Aquifer 2 = Vol = $[\Delta h_{cnf} * S] + [\Delta h_{uncf} * SY] + [\Delta h_{uncf}$ (avg thickness) $S_s]$

= 0.0135m + 4.2m + 0.003m ~ 4.2165 m^3 / m^2

0.3% **99.6%** **0.07%**

WHAT IF IT IS NOT A SIMPLE SHAPE?

average drawdown over the area



Use average drawdown over the area.

GO TO EXERCISE 11a AND THEN TO THE KEY FOR THE DETAILED SUBSTITUTIONS

Meters and Days

	d	h_{max}	$h_{x=12.5}$	$h_{x=37.5}$	qriv	qcan
Group 1						
K=0.01	18.17	5.92	5.85	4.98	-0.00498	+0.00872
w=0.000274						
Group 2						
$K=1x10^{-4}$	24.93	41.58	36.13	36.00	-0.00683	+0.00687
w=0.000274						
Group 3						
$K=1x10^{0}$	-658.28	12.03	4.63	3.48	+0.18035	+0.19405
w=0.000274						
Group 4		(min)				
K=0.01	38.66	2.35	3.86	2.36	+0.00530	-0.00155
w= -0.000137						
Group 5						
K=0.01	-infinity	infinity	4.62	3.46	+0.00187	+0.00187
w=0.0						

Group 5: q same as using Dupuit approx dh/dx with avg h for b

Meters and Days

Arrows Conceptual Only

	d	qriv	qcan	
Group 1				
K=0.01	18.17	-0.00498	+0.00872 = 0.0137	
Recharge=0.0137				
Group 2				
$K=1x10^{-4}$	24.93	-0.00683	+0.00687 = 0.0137	
Recharge=0.0137				
Group 3				
$K=1x10^{0}$	-658.28	+0.18035	+0.19405 = 0.0137	
Rexharge=0.0137				
Group 4				
K=0.01	38.66	+0.00530	-0.00155 = 0.00685	
Discharge=0.00685				
Group 5				
K=0.01	-infinity	+0.00187	+0.00187 = 0	
w=0.0				

Group 5: q same as using Dupuit approx dh/dx with avg h for b