

Table 1 Head recovery deficit h_{def} as a function of reference head h_{ref} and cell Reynolds number D

h_{ref} (m)	$D = 1.00$		$D = 0.5$		$D = 0.25$		$D = 0.125$	
	$h_{t=∞}$ (m)	h_{def} (m)	$h_{t=∞}$ (m)	h_{def} (m)	$h_{t=∞}$ (m)	h_{def} (m)	$h_{t=∞}$ (m)	h_{def} (m)
100	100.00	0.00	99.9869	0.0131	99.9625	0.0375	99.8279	0.1721
200	200.00	0.00	199.974	0.0260	199.925	0.0750	199.656	0.3440
400	400.00	0.00	399.948	0.0520	399.850	0.1500	399.312	0.6880
800	800.00	0.00	799.895	0.1050	799.700	0.3000	798.623	1.3770

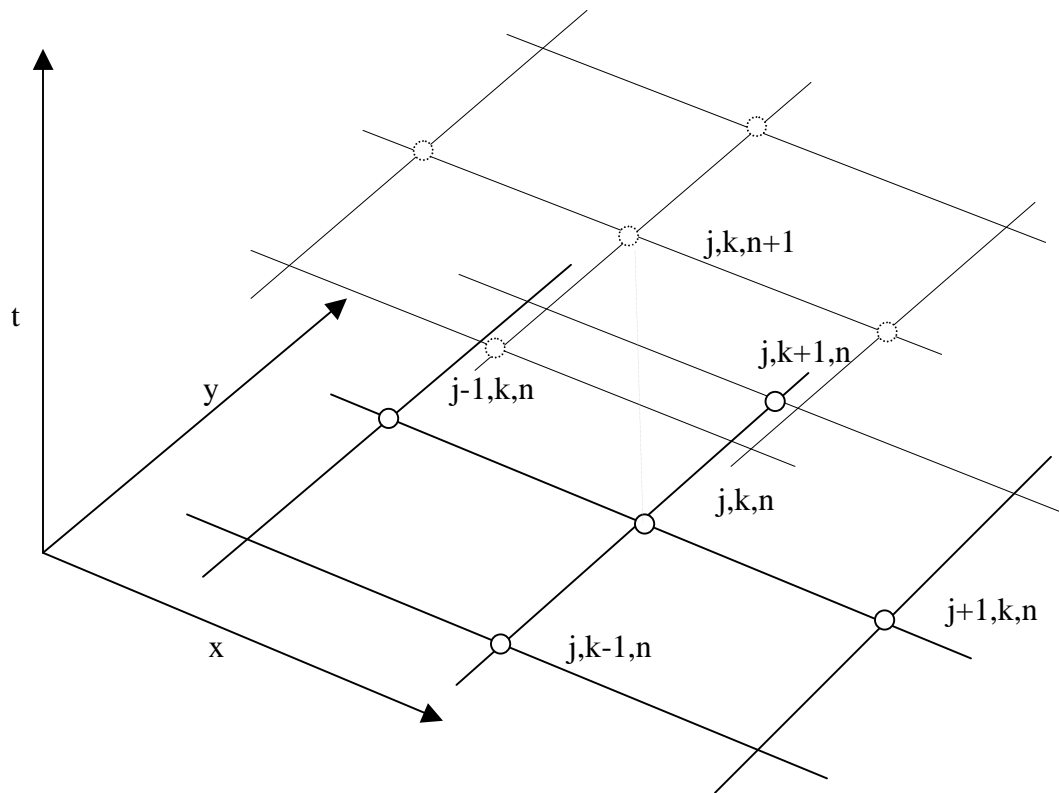


Fig. 1 Notation for finite-difference scheme.

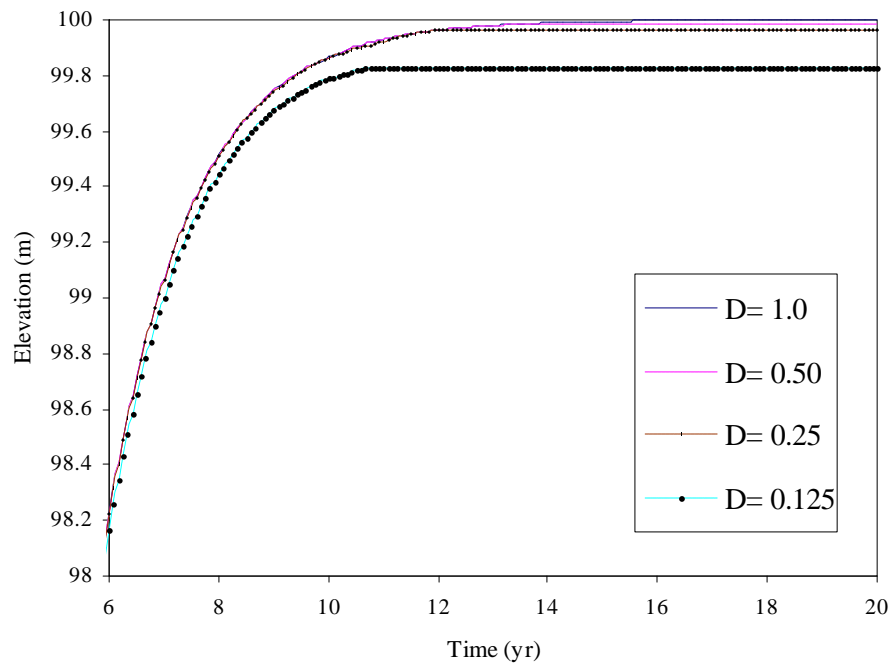


Fig. 2 (a) Head recovery at centerfield node (50,50) for $h_{ref} = 100$ m.

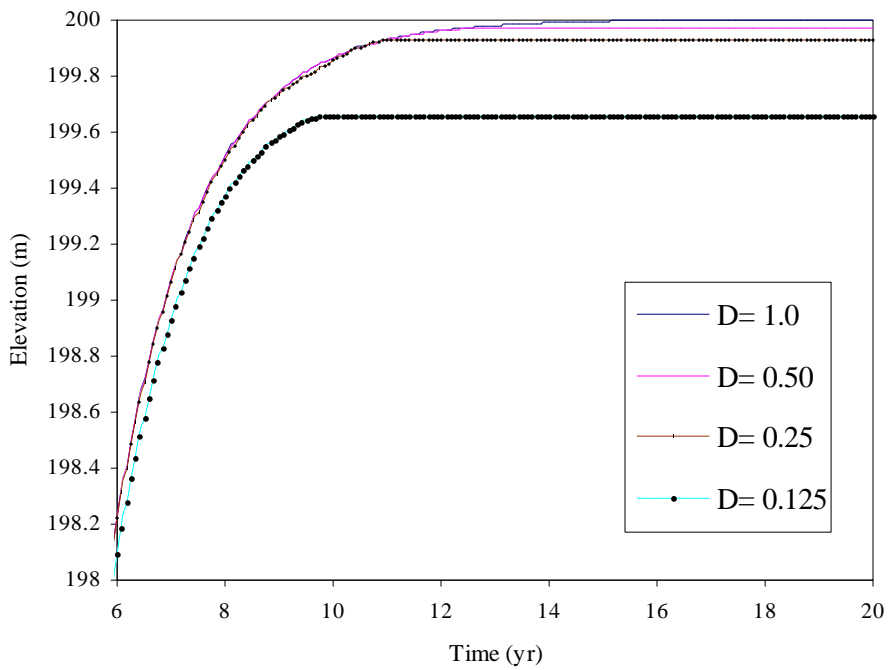
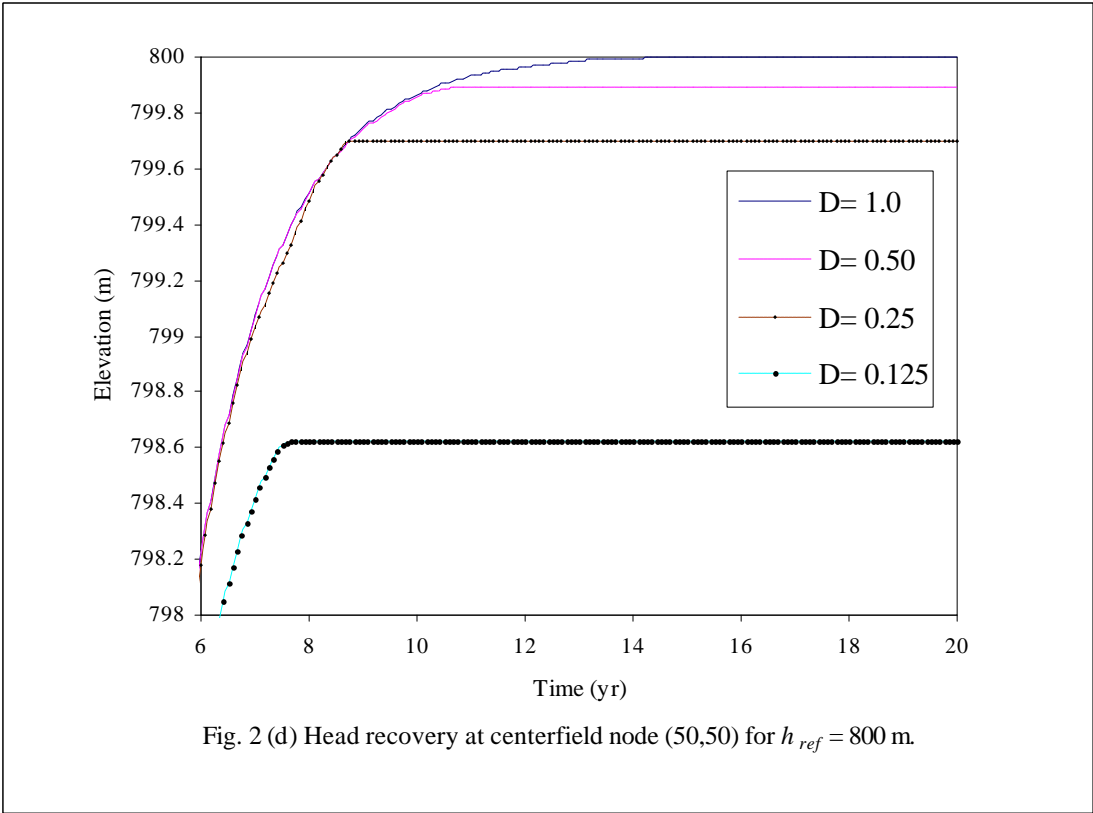
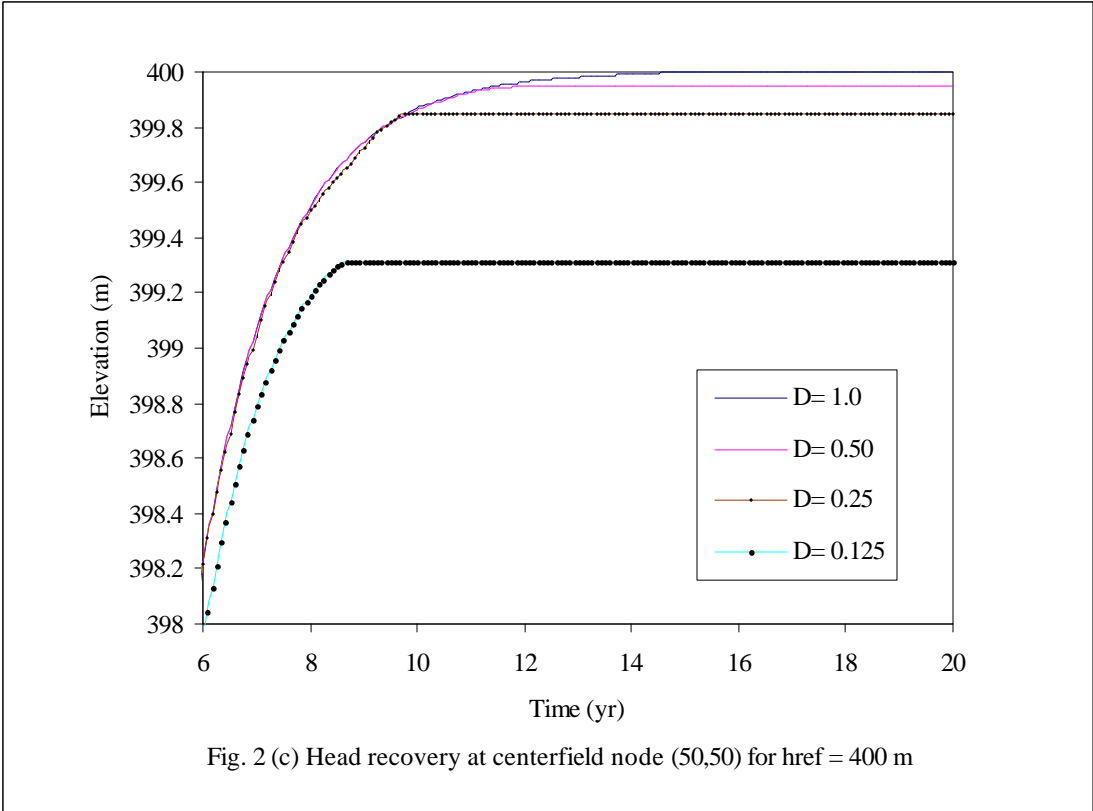


Fig. 2 (b) Head recovery at centerfield node (50,50) for $h_{ref} = 200$ m.



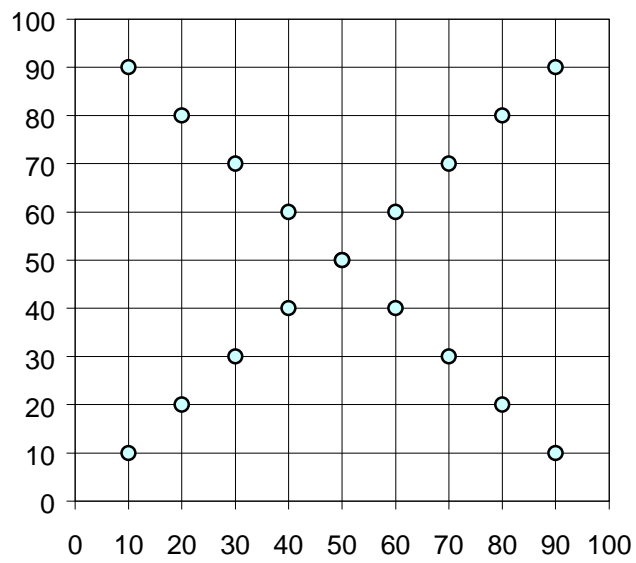


Fig. 3 Pump locations for cold start tests.

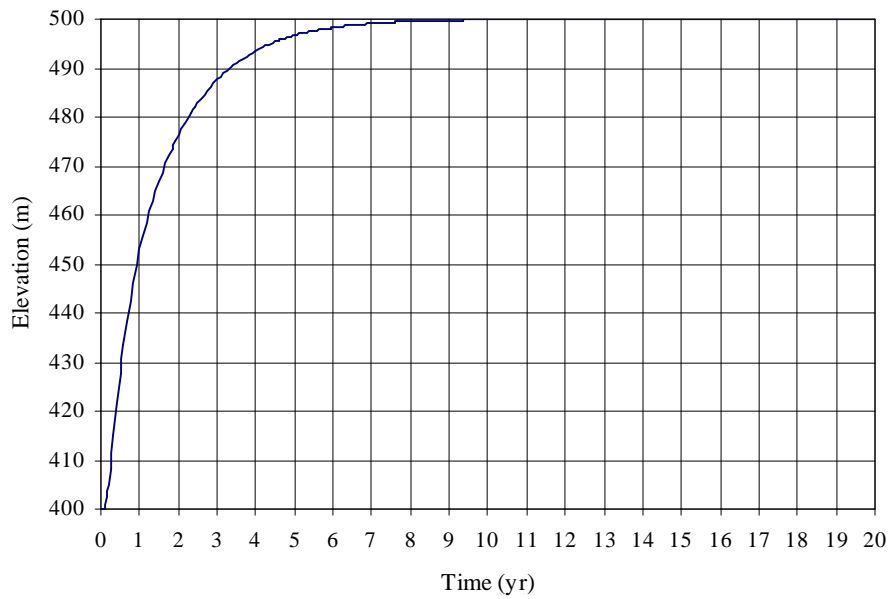


Fig. 4 Head at centerfield node (50,50) for permeable hot start test.

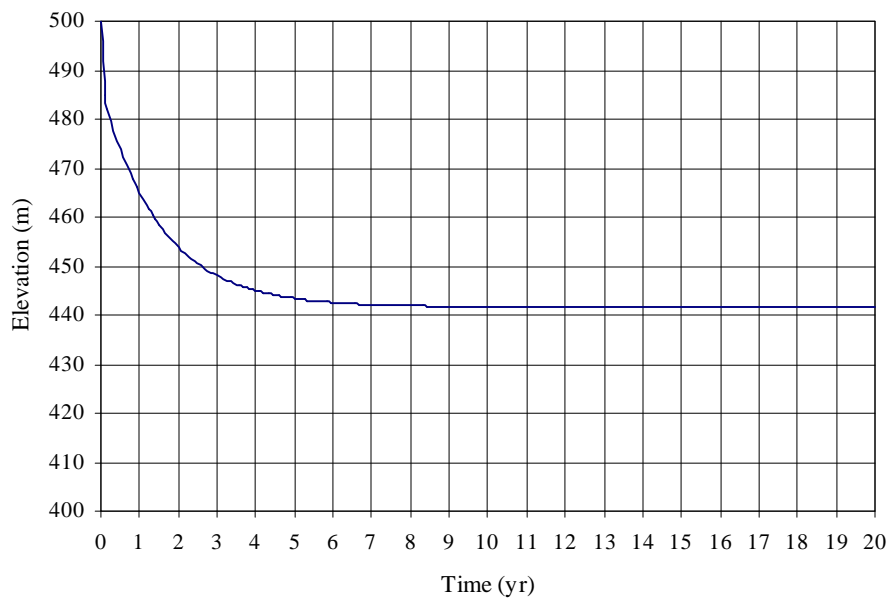


Fig. 5 Head at centerfield node (50,50) for permeable cold start test.

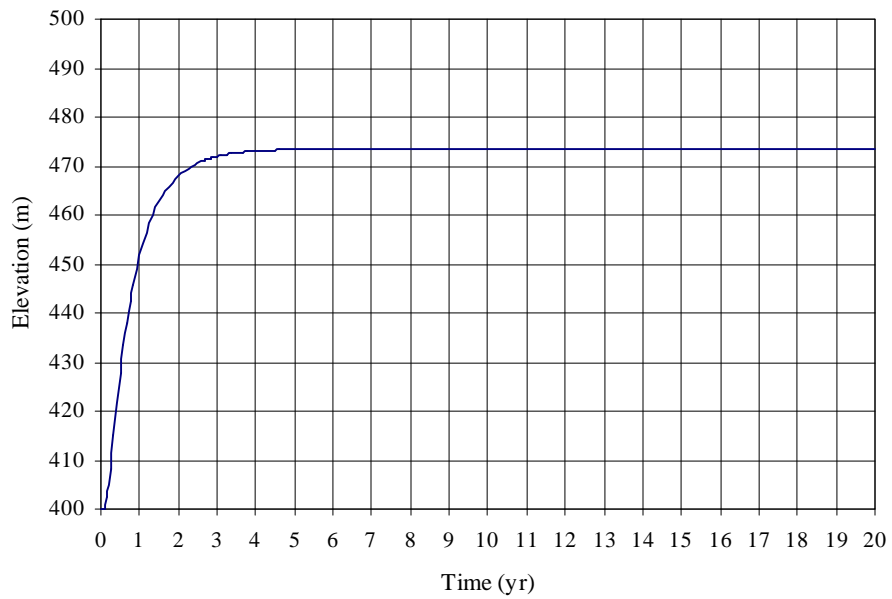


Fig. 6 Head at centerfield node (50,50) for impermeable hot start test.

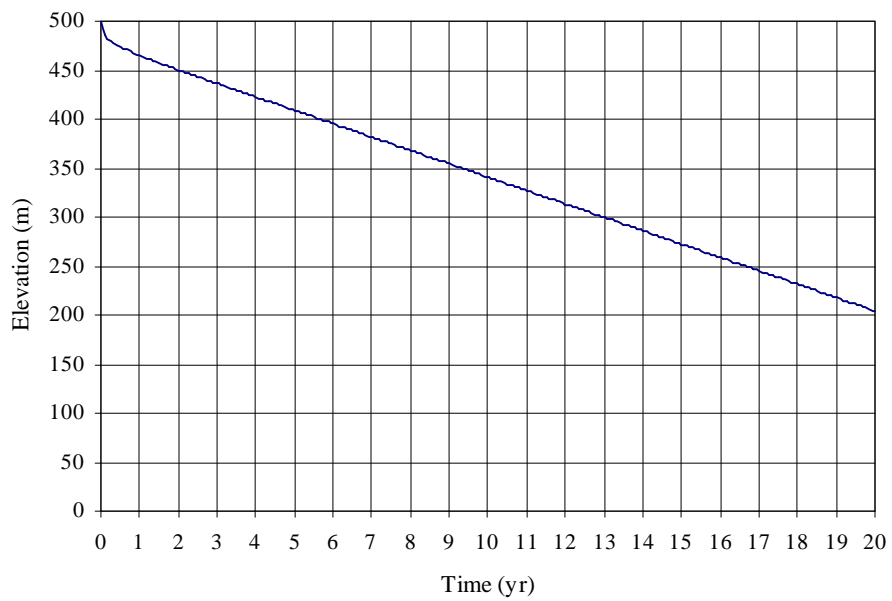


Fig. 7 Head at centerfield node (50,50) for impermeable cold start test.