Model of an aquifer in front of a window in a vertical well: cylindrical approximation

R. Santangelo (1), S. Vincenzi (2), M. De Leva (1), L. Balestri (1)

(1) Dipartimento Ingegneria dei Materiali e dell'Ambiente, Modena, Italia, (2) Istituto di Scienze Marine Dinamica Grandi Masse, Venezia, Italia

Analytical expression of Velocity Potential is provided. Check that cylindrical Laplace operators on Velocity Potential vanishes confirming mass conservation under assumption of irrotational motion. Equation concerning analytical solution of Stoke's Stream Function is also provided. Graphic behaviour of surface concerning Velocity Potential and orthogonal Stream lines are shown.