

## NONSTATIONARY FILTRATION OF TWO-PHASE SYSTEM INVOLVING IMPERMEABLE BARRIER

### Abstract

*The axisymmetric problem on nonstationary filtration of liquid to central well-imperfection due to partial penetration involving a circular impermeable barrier at the bottom, is investigated. The domain of flow and liquid are accepted homogeneous. The problem is reduced to solution of differential equation of parabolic type at corresponding initial and boundary conditions. The problem is solved by the approximate methods: method of integral relations and method of Laplace transformation. The formula for determination of radius front disturbance is given. The distribution of potential velocity is also given both for the first and the second phase of flow.*