

CHANGES IN MINE DEWATERING AFTER THE CLOSURE OF EXHAUSTED OIL SHALE MINES

E. REINSALU

Department of Mining, Tallinn University of Technology
5 Ehitajate Rd., Tallinn 19086, Estonia;
e-mail ere@cc.ttu.ee

Oil shale mining in Estonia has been restructured to meet the contemporary economic and consumer requirements. Several old mines have been closed and are at present filled with water. An extensive technogenic groundwater body has formed inside the earth, influencing the drainage of the deeper, still working mines. In order to determine the exact proportions of precipitation, groundwater and water of closed mines in the water pumped out of mines, the corresponding relations were established and mathematical model was developed. It was found that the water from abandoned mines formed a large proportion of the water pumped out. As the water of closed mines comes mostly from precipitation, the dewatering of working mines has turned more dependent on precipitation as well.