

## **Oil shale beneficiation considerations**

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The basic parameters for oil shale processing are the heating value, the oil content and the grain-size composition. The oil shale grade can vary considerably within the location in a deposit and depends on carbonate rock and heavy mineral concretions at that. The grain-size distribution and the grade of excavated oil shale depend directly on applied mining technology and beneficiation process. Power and thermal plant boilers and oil retorts require a relatively constant grade of oil shale concentrate. The main aim of the beneficiation process is to increase the oil shale grade by way of separation it from non-organic parts. The method is based on analysis of the technological properties of oil shale from over one hundred deposits around the world. The approach includes technical analysis of dry screening, coarse concentration, wet screening, fine concentrating, dewatering and production trimming processes. The possibility of improving oil shale separation was investigated. For actual improvement of beneficiation flowsheet and equipment selection is necessary the systematic investigation of the oil shale overmilling process and the transportation from the mining development to the loading point of final product. The results of the analysis can be used at technological considerations for choosing suitable flowsheet of oil shale beneficiation process and the mining methods selection. And also it is allowed estimate a material balance and determine the proper technological schemes. These technological considerations are facilitate the appropriate decisions for further oil shale refining processes and can be used for oil shale reserves estimation.