

14.3 **The Effect of Demineralization of Jordanian Ellajun Oil Shale on the Oil Yield Obtained by Fisher Assay and Solvent Extraction**

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Jordanian oil shale contains large amounts of minerals that could hinder its utilization. The effect of demineralization of Jordanian oil shale on the oil yield and mineral composition was investigated. A standard digestion procedure was applied on Jordanian oil shale using a wide range of acids including HCl, HNO<sub>3</sub>, HF with different concentrations. The dried residues were then subjected to solvent extraction using chloroform. The highest oil yield was obtained when using 10% nitric acid, and the highest Fischer Assay of the treated samples was obtained after the treatment using 10 % HNO<sub>3</sub> (22.5%) as well as 35% HCl (23.7%). The oil obtained using Fischer Assay after the treatment with HF was found to contain zero water content. This suggests that the main source of water is mainly the alumino-silicate minerals which were successfully dissolved by HF.

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