

17.3 **Oil Shale Exploration Company (OSEC) 2010 update**

Gary Aho, Dan Elcan

Oil Shale Exploration Company, Rifle CO, United States

OSEC was formed in 2005 with a plan to mine, extract, upgrade, transport, and sell commercial quantities of synthetic crude oil and other products derived from oil shale deposits. In June of 2008, OSEC entered into a joint venture arrangement with affiliates of Petroleo Brasileiro SA ("Petrobras") and Mitsui and Co. Ltd ("Mitsui"). Pursuant to this agreement, Petrobras and Mitsui have acquired rights to 10-20% interests each in a joint venture with OSEC and have conducted a Comprehensive Feasibility Study ("CFS") for a 50,000 barrel-per-day oil shale plant using the Petrobras Petrosix retort technology on OSEC's Utah land. The CFS was completed in November 2009 and the results of the CFS were extremely positive and indicated that a Utah oil shale project clearly warrants further development efforts. OSEC has entered into negotiations with Eesti Energia to utilize their Enefit technology for processing of oil shale fines too small to be process in the Petrosix retort. OSEC has accumulated, either directly or by option agreement, a sizable acreage position totaling 30,634 contiguous acres comprised of three properties in Utah's Uinta Basin: the White River Mine Property, the Skyline Property, and the Orion Property. The properties are part of the shale-rich Green River Formation which is located in southern Wyoming, western Colorado and eastern Utah, and contains over 70% of the United States' oil shale resources. OSEC's properties comprise the largest non-governmental owned oil shale reserves in the State of Utah. OSEC plans to use the Petrosix process that has been under development since the 1950's and is one of the few retorting processes in the world that can show significant production of oil and consistent on-stream factors. This retort technology is owned by Petrobras and has been in commercial operation in Brazil since 1992. The world's largest operational surface oil shale pyrolysis reactor is the Petrosix thirty-six foot diameter vertical shaft kiln located in Brazil. This retort processes 260 tons of oil shale per hour and produces over 4,600 barrels of shale oil per day. Fresh oil shale from the White River Mine was tested during the mid 1980's and again in 2009 using the Petrosix process in Brazil. The test results were consistent and positive.