Missouri Oil Shale Projects May Be Feasible.

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Sustained high crude oil prices may spark selected Missouri oil shale projects. Missouri's Devonian Chattanooga Shale and Upper Carboniferous Excello Shale contain estimated oil resources of 6.6 and 14.9 billion barrels, respectively.

The Chattanooga Shale occurs in extreme southwest Missouri. Two to 12 gallons of oil per short ton is estimated for 49.4 billion short tons of black marine shale ranging from 10 to 60 feet thick. Two to 14 billion barrels of oil may be recoverable. Three to 61 parts per million of Uranium may be present. Overburden thickness ranges from zero to about 350 feet. Variable oil content, trace element content, and roof stability identify areas where underground mining is feasible. However, an efficient underground mining method, oil extraction process, and uranium recovery process is the heart of the project. A feasible oil shale project may require marketing limestone, recovering uranium, and developing underground space.

The Excello Shale averages three feet thick in north Missouri. Four to nine gallons of oil per short ton is estimated for 93.3 billion short tons of black marine shale. Nine to 20 billion barrels of oil may be recoverable. Up to 28 percent P_2O_5 and 100 parts per million uranium may be present. Zero to 140 feet of overburden covers the Excello in parts of northeast Missouri. Overburden thickness, oil content, and trace element content identify areas where surface mining is feasible. Sale of associated limestone and coal may make a feasible project.