

# Global Oil Reserves and Shale Oil Report

Ed 1 2012

## Market Intelligence

### Shale Oil

This NRG Expert product provides a full analysis of the shale oil market. While shale gas has received a lot of column inches, so has another shale hydrocarbon- shale oil. Although strictly not an 'oil' and 'shale', oil shale is a fine-grain sedimentary rock containing significant amounts of an organic bituminous material known as kerogen that can be a precursor to conventional oil and 'converted' into shale oil.

To date production of shale oil has been mainly restricted to periods in history when oil supplies were constrained or expected to be constrained or when governments supported the sector. For example, interest in shale oil projects was high during and after wars due to concern over possible supply constraints. After the 1973 oil embargo a reduction in oil supplies resulted in many countries exploring and producing domestic shale oil.

### Oil Prices

High oil prices have made expensive shale oil projects more attractive, but the volatility of oil prices have made it risky to invest in expensive projects that require a high oil price to be profitable. Oil prices are projected to rise, which may make projects profitable in the long-term, particularly in countries keen to increase domestic oil production. Competition from conventional oil and unconventional and frontier gas is a significant risk, for example oil sands and deep offshore gas. However, as OPEC oil is expected to continue to dominate the oil markets, countries with oil shale reserves may be keen to develop, at least some domestic oil industry.

### The US

The US has by far and away the most shale oil reserves, but the industry is not developed. Other countries with fewer reserves, Brazil, Estonia and China, have commercial shale oil production. Most of these projects are surface mining projects such as the Fushun Mining Group's Fushun Enerfit's Enerfit and Petrobras' Petrosix retorts with a higher environmental impact than less developed in situ technologies. There is a drive towards the use of in situ technologies to meet environmental legislation, particularly in the US.

Shale oil produced from these projects is just one source of revenue for project developers. Other products from oil shale include cosmetic ingredients, cement, chemicals found in the shale such as uranium and phosphate for fertiliser. These products could provide an additional source of revenue for as companies commercialise in situ technologies and whilst shale oil projects are operational.

Over the coming years the development on the industry will be challenged by other sources of oil; fluctuating oil prices; environmental opposition and environmental legislations including water usage. But with oil prices projected to remain high and the additional revenue streams available for oil shale, the high costs involved may be justified.

## How can NRG Expert Help?

NRG Expert's Global Oil Reserves and Shale Oil Report Ed 1 2012 is a fully comprehensive report on the global shale oil markets. This report includes:

- World oil and gas reserves
- The definition of reserves
- Unconventional and frontier oil and gas reserves
- Oil supply and demand

- Oil Prices
- Projected oil demand and supply
- The economics
- The major countries
- Oil companies – large and small
- The environment

Report Price - £850

**Code – NRGSHO1**

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