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Kenneth J. Bird, U.S. Geological Survey, Menlo Park, CA

The 2002 Oil and Gas Assessment of the National Petroleum Reserve, Alaska by the U.S. Geological Survey

The U.S. Geological Survey has re-evaluated the quantity of undiscovered petroleum that might exist beneath the National Petroleum Reserve–Alaska (NPRA). This is the first complete re-evaluation of the petroleum potential of the NPRA in more than 20 years. It provides an updated, scientifically based perspective of the petroleum potential at a time when petroleum infrastructure has reached the eastern edge of the NPRA, while within the NPRA, exploration is in progress, discoveries have been announced, and planning for new lease sales is under way.

The USGS assessment concludes that NPRA holds significantly greater petroleum resources than previously estimated. Technically recoverable, undiscovered oil beneath the Federal part of NPRA likely ranges between 5.9 and 13.2 billion barrels of oil (bbo), with a mean value of 9.3 bbo. An estimated 1.3 to 5.6 bbo of those technically recoverable oil resources are economically recoverable at market prices of \$22 to \$30 per barrel. About 80% of the technically recoverable oil resources are likely to be located in northern NPRA within plays that are westward continuations of the geologic trends that host Jurassic and Cretaceous oil pools, just east of NPRA. Technically recoverable, undiscovered nonassociated natural gas ranges between 39.1 and 83.2 trillion cubic feet (tcf) with a mean value of 59.7 tcf. Four Cretaceous plays located in the central and southern part of the NPRA are estimated to contain about 60% of these gas resources. Economic viability of this gas will depend on the availability of a natural gas pipeline for transport to market.