

## **Shell's *in-situ* conversion process for oil shale**

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Unconventional resources and especially oil shale are potentially strategic resources for the United States and the world. In Colorado, Shell is field-testing a new technology, the In Situ Conversion Process (ICP) that accelerates the natural process of oil and gas maturation by literally tens of millions of years. ICP uses heaters drilled in the oil shale resource and slowly heats to over 600 °F over a 3 to 4 year period. ICP produces light hydrocarbon liquids and gases with almost no heavy ends, while leaving in the subsurface a char that is extremely hydrogen deficient. A freeze wall surrounding the heated zone is used for preventing water ingress and product containment. Tests being performed in Colorado are reducing the uncertainties associated with recovery efficiency, product composition, and energy balance. Shell hopes to be able to declare the process commercial by the end of the decade.