

**AAPG Annual Convention
Salt Lake City, Utah
May 11-14, 2003**

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Heavy Oil Resources of Utah: An Emerging Opportunity?

Just a few very large and relatively shallow oil-impregnated sandstone deposits in eastern Utah contain well in excess of 8.0 billion barrels of 8°-14° API oil in place. Despite numerous projects in the past to exploit this heavy oil resource, none were fully successful at then existing oil prices. To this day the resource remains undeveloped and largely ignored by the petroleum industry. The barriers to development have been many and varied: land access and permitting, site accessibility, the market for product, and environmental concerns. However, the principal impediments to development are technical - the very high viscosity of the heavy oil and the heterogeneity of the reservoir sandstones. Both of these factors limit the effectiveness of conventional thermal recovery methods, such as steam soak and steam flood. In other similar heavy oil deposits in Canada, Venezuela and California these technical problems are being overcome by application of new, innovative thermal recovery technologies, such as SAGD, VAPEX™ and toe-to-heel air injection. Also improvements in handling and refining heavy oils are expanding their marketability. The time is right to reexamine the vast unexploited heavy oil resources of Utah. Several areas within the large accumulations on the eastern margins of the Uinta Basin are well suited for the initial thermal recovery pilots needed to test the present commercial viability of this important domestic oil resource.