

Plan to test an in situ planar heater on a proposed RD&D Lease

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This presentation describes the plan for technical demonstration of in situ conversion of oil shale by planar heaters in the saline zone of the Parachute Creek member of the Green River Formation. This work is planned for ExxonMobil's proposed Research, Development, and Demonstration (RD&D) lease north of Ryan Gulch in the Piceance Creek Basin. In situ planar heaters have the potential to decrease surface disturbance relative to competing technology by minimizing the number of heater wells and associated surface penetrations. Our decade-long pursuit of in situ oil shale conversion technology has demonstrated the feasibility of constructing in situ planar heaters in shallow oil shale deposits. Our test plans for the proposed RD&D lease include a phased approach as follows:

- 1) Geologic appraisal and groundwater monitoring
 - 2) Drilling and construction of a small-scale in situ planar heater, associated instrumentation, production wells, and facilities
 - 3) Operation of the in situ planar heater for up to six months
 - 4) Drilling and construction of a commercial-scale pilot in situ planar heater, associated instrumentation, production wells, and facilities
- Operation of the commercial-scale pilot for up to five years.