The proposed leasing rules were drafted under authority of the Mineral Leasing Act to implement Point 3 of a five-point overall program announced by Udall January 27 to promote the recovery of shale oil and associated minerals from the rich Green River Formation in Colorado, Wyoming and Utah. Most of this land is Federally owned, and administered by the Interior Department's Bureau of Land Management.

The third point of the comprehensive program calls for procedures to permit the Interior Department to consider applications for provisional developmental leases of oil shale lands. In testimony before a committee of the Senate recently, Udall described this point as "at once the most difficult and most crucial, since it involves the first experimental and limited steps toward opening the shale reserves to actual development."

Known oil shales in the three States are estimated to contain the equivalent of approximately 70 times the nation's proved reserves of crude petroleum. In some locations they are intermingled with substantial quantities of minerals containing sodium and sodium-aluminum compounds.

No more than 30,000 acres in all would be involved in the leasing program under the newly proposed rules. About 11 million acres are classified as containing oil shale land in the three States. About 5.1 million of these acres—some 3.7 million of them Federally owned—contain "15–15" shales—that is, shales at least 15 feet thick which would yield at least 15 gallons of oil per ton.

The richest shales are believed to be in the Piceance Creek Basin of Colorado, where some 770,000 acres contain 25-gallon-per-ton shale in thicknesses of 15 feet or more. About three-fourths, or 580,000 acres, are Federally owned. Thus, 30,000 acres would represent only slightly more than 5 percent of the federally-owned shale lands in this area. However, areas to be designated for leasing will be selected by the Department in order to encourage research on a variety of shale conditions, and will not be limited to the richest areas.

Development leases, the Secretary emphasized, would involve two distinct phases. The first phase—limited to 10 years—would require the contractor to expend research and development funds on relatively small acreages. The aim of the Department would be to encourage a variety of approaches leading to a technology which could support a broadly based competitive leasing program, the Secretary said.

The second phase, reached only when the Secretary finds research work has proved successful, would make available to the lessees acreages large enough to sustain a commercial operation of specified capacity for as long as mineral products are produced in paying quantities. However, under the terms of the Mineral Leasing Act of 1920, no lease may exceed 5,120 acres, and not more than one lease may be granted to any one person, association or corporation.

Leases all would expire at the end of their research periods unless the Secretary of the Interior authorized commencement of the commercial production term.

Private citizens, associations, corporations or municipalities would be eligible to make proposals for leases. Evaluation of their proposals, after "consultation with appropriate Federal, state and local agencies," would be based on a number of specified factors. Among these would be prospects of attaining commercial feasibility of a variety of mining and processing methods, under varying conditions; enhancing chances to make maximum recovery of other minerals involved; improving the competitive opportunities for smaller companies; and limiting potential hazards to the environment and to human safety. Other factors would be the applicant's financial and technical capabilities; his need for leased lands to do the work; the pace of his proposed research and development; the likely effects on competition; etc.

Applicants must disclose their interests in other oil shale lands, and state their need for a lease, their financial and technical capability, their plan of work, including research goals, and the nature, location and cost of plants and equipment they would install. They would have to specify the number of "key persons" to be employed, and their qualifications. Also required will be a schedule of proposed expenditures, and the techniques to be studied.

Additional information to be provided will include a description of steps to be taken to avoid or minimize possible adverse effects on the environment, the applicant's water needs and source of supply, the measures to prevent waste of mineral resources, and plans for a commercial operation if the research succeeds.

There would be a minimum royalty to the Federal Government of 3 percent of the gross value of the mineral products from the oil shale at the point of shipment to market, with a graduated scale of royalties ranging up to 50 percent