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Bibliography of the Geology of the Green River Formation, Colorado, Utah, and Wyoming, to March 1, 1977

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By Marjorie C. Mullens

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BIBLIOGRAPHY OF THE GEOLOGY OF THE GREEN RIVER FORMATION, COLORADO, UTAH, AND WYOMING, TO MARCH 1, 1977

By Marjorie C. Mullens

INTRODUCTION

The Green River Formation in northwestern Colorado, northeastern Utah and southwestern Wyoming contains thick and extensive deposits of oil shale. The richest oil-shale deposits underlie an area of 12,000 square kilometers in the Piceance Creek and Uinta Basins in northwestern Colorado and northeastern Utah. Cashion and Donnell (1968) reported that these basins contain about 105 billion metric tons of oil in beds which are more than 4.6 meters thick and which contain an average of 5.7 percent of oil by weight. Much additional oil is present in beds that contain less than 5.7 percent oil or are less than 4.6 meters thick in these basins and in other areas underlain by the Green River Formation. Duncan and Swanson (1965) estimated that the known recoverable and marginal resources of oil in the entire Green River Formation are about 280 billion metric tons. In early 1977, however, none of the oil shale was being mined for oil on a commercial basis.

The Green River Formation also contains gilsonite, bituminous sands, oil and gas, and sodium and aluminum minerals. Some of these minerals were being produced commercially in early 1977.

This bibliography, which contains 895 references, was compiled to aid studies on the geology and resources of the Green River Formation. References included are mainly on the areal geology, stratigraphy, paleontology, geochemistry, and mineralogy of the Green River Formation, but some concern development of the oil-shale deposits. Recent studies also concern the effects that an oil-shale industry will have on the environment.

The bibliography is arranged in three parts: U.S. Geological Survey reports on the Green River Formation, Colorado, Utah, and Wyoming; reports by U.S. Geological Survey authors on geology of the Green River Formation, Colorado, Utah, and Wyoming, in non-U.S. Geological Survey publications; and selected reports by non-U.S. Geological Survey authors on the geology of the Green River Formation, Colorado, Utah, and Wyoming. The two parts by Geological Survey authors are as complete as possible, but the other part includes only selected references. For reports in which mention of the Green River Formation is only incidental, brackets are used to indicate the pages pertinent to the Green River Formation.

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