

FOREWORD

After over 50 years of predictions that shale oil production in the United States is on the threshold of commercial development, there is still no commercial size plant scheduled for construction. In 1920, technical problems were the main roadblock to commercialization of shale oil production, while today the major obstacles also include environmental and political problems as well as the lack of necessary economic incentives.

In spite of the importance of environmental impact with respect to shale oil development, it was a deliberate decision not to include papers on environment in the program of the Eighth Oil Shale Symposium. This decision was made for two reasons: (1) the Seventh Oil Shale Symposium had dealt heavily with environmental and land-use planning, and (2) a survey of companies involved with field work in environmental aspects of oil shale development indicated more complete and definitive papers would be available in the fall of 1975 after another spring and summer of data collection. As a result the decision was made to limit the April meeting to papers that dealt with areas of shale oil production other than environmental and to schedule a special symposium on October 9th and 10th, 1975, restricted to "Environmental Aspects of Oil Shale Development."

The need for efficient use and conservation of our energy resources is apparent to everyone today. In the past little attention was paid to energy efficiency of various sources of energy supply and no general ground rules were developed so that true comparisons could be made among energy sources. The keynote session of the Eighth Oil Shale Symposium was devoted to reporting "Input-Output Energy Studies for Development of Oil Shale Resources" and guideline discussions were encouraged. This provided a series of papers on net energy relationships as well as the limitations and restrictions of each of the studies. Hopefully this has given a better insight into the items that should be considered in all net energy studies and their relative importance.

Efficient use of other minerals found in oil shale deposits is also a necessary restriction on development of energy sources from oil shale. If properly handled, the recovery of these minerals can help defray part of the costs of mining and land reclamation as well as provide minerals needed for this country's economic progress. Papers are included that pertain to other minerals found with oil shale as well as improvements in technology that will serve to make shale oil production more efficient and less costly.

The success of the symposium is due largely to the interest and dedication of the authors of the papers and the support of their employers which

permits and encourages them to make the results public. Appreciation is expressed to everyone participating, either as author, speaker or sponsoring company, who made this symposium possible. Special thanks are given to Jon Raese and the reviewer, Mark T. Atwood, who provided prompt and efficient publication of the proceedings.

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