I would just like to point out that I believe your remarks here before us represent some of the most concrete, thoughtful, responsible and constructive responses that we have had during these hearings on oil shale development, and I want to thank you, Mr. Smith, at the outset for your contributions and the terrific innovations provided us by Mr. Nielsen.

Mr. SMITH. Thank you.

Senator HANSEN. Mr. Smith, there has been a good deal of discussion concerning the urgency of an oil shale and associated minerals development effort, but so far in these hearings, other than some mention of a 10- to 15-year leadtime requirement, we have not pinned down any facts relating to our future energy needs. I would like to refer to a short article in the Wall Street Journal of Monday, February 20, which summarized the results of a recent study made by Mr. John C. Lichtblau, research director of the Petroleum Industry Research Foundation, Inc.

Mr. Lichtblau predicted that domestic production of crude oil and natural gas liquids would have to rise to 13,208,000 barrels daily by 1980 to maintain the share of the Nation's needs currently allocated domestic producers by the Federal Government mandatory import controls program.

According to the Oil and Gas Journal, this compares with our 1966 output of 9,102,000 barrels a day. Using this as a base, Mr. Lichtblau said that to sustain the 1980 rate of output with the present level of 12-year supply at present rates, U.S. producers would have to find 97.2 billion barrels of new oil reserves in the 1965 through the 1980 period.

This would represent a 51-percent increase from the 52.6 billion barrels found in the previous 15 years.

Citing these needs, Mr. Lichtblau forecast a growth rate for oil, however, of only 2.7 percent a year compared to an estimated 3 percent per year rise in total U.S. energy consumption.

Most disturbing is the fact that he estimated that U.S. wells will have a 21-percent reserve capacity of actual production rates in 1980, down from 75 percent at the present time.

I cite these figures here because Mr. Lichtblau then goes on to say that his research indicates that oil shale would not make a measurable contribution to crude supply in the next 15 years.

That statement, made in the face of such evidence which indicates a drastic decline in our domestic liquid reserves, is disturbing to me on its face.

Would you care to comment on this recent detailed study, Mr. Smith?

Mr. SMITH. I do not know Mr. Lichtblau and I am not familiar with the report. I think I should comment only on his prediction that oil shale will not produce anything for the next 15 years.

On that I would say that Mr. Litchtblau appears to be a very practical, realistic person. He is looking at the history of oil shale. On the basis of past performance and what has visibly been going on so far, I would think that his prediction is right. The only way something is going to happen in the oil shale business is to have Congress, the executive department, and industry make up their minds whether they want it and go ahead with it.