During the past 3 years much that has been said of our oil shale in special advisory group meetings and technical symposia and congressional committee rooms, and in considering the birth of the oil shale industry, the discussions usually involve one basic question: Will the land be made available for development by private enterprise or will this resource be developed by Government agencies?

May I submit to you gentlemen that if such a question had been posed a hundred years ago, and if the decision had been in favor of Government development, the growth of mineral resources in the national economy would have been quite different, and I believe, far below the level of economic growth which this Nation has experienced.

The debate of the private versus Government development has brought forth many warnings of dangers of giveaway, the danger of recurrence of Teapot Dome scandals, et cetera. Tea Pot Dome has been brought up here a number of times.

I would like to just state that in a letter from Byron Mock there was a very interesting statement made, and I will quote him:

> Tea Pot Dome was not a scandal so much because of the chosen instrument that was selected. It turned out to be an excellent business deal from the government's point of view. The scandal arose from the personal benefits sought and accepted by a government official behind closed doors. An open competitive system could prevent that. The inactivity of government since the 1920 Mineral Leasing Act may in itself be considered a scandal. The failure to secure rentals has deprived the government of large amounts of rental revenues. The failure to issue leases even in the period from 1920 to 1930 prevented the development of proper adversary proceedings to eliminate mining claims or perfect them under any of the methods available, including, as provided in the law, the substitution of a lease for an unpatented mining claim or claims. Today this substitution would be impossible.

Another point that I would like to draw from my statement is that much has been said about the magnitude of the oil reserve estimates attributed to the oil shale deposits of the West. Let me look for a moment with you at the magnitude of the investment involved when we look beyond the research at our best estimate of what it will cost to establish production.

To establish mines, retorting mills, and other facilities necessary to develop oil from oil shale ready for the refinery, we believe the cost would range near $125 million for production of 15,000 barrels per day. In the next 10 years our excess producing capacity of approximately 3 million barrels per day will be essentially depleted.

May I break in here for a moment to say I have been amazed at the comparability of the figures that have been used in this hearing. The president of Humboldt, the president of Union Oil, today Mr. Winger, Mr. Winston, all of us are practicaly using identical figures, and I was not aware of their figures. I think we have drawn them from primarily individual sources.

In the next 10 years, as indicated earlier in this treatise, and I spent some time developing this, our present excess capability, which is reserve because of the allowables, because of the states of maximum production, will go from approximately 3 million barrels a day down to less than a half million, 0.6 of a million barrels per day. Oil shale can best serve as a supplement rather than as a substitute and can take up this gap. However, at the rate of $125 million per each 50,000 barrels per day, that investment would be $6.5 billion.