

Appendix A.3

RESERVES OF NATURAL GAS IN WEST PAKISTAN

Heavy investments in electrical power generation and fertilizer production based on natural gas can be justified only if the underground reserves are ample for the future.

The largest known West Pakistan gas field is at Sui, in northeast Baluchistan. It was discovered in 1952 by Pakistan Petroleum, a Burmah Oil Subsidiary. Recoverable reserves were estimated in February 1961 at 5.24 trillion cubic feet. The gas, which is 90 percent methane, is carried through a 16-inch pipeline 350 miles south to Karachi and 315 miles north to Multan. A new 20-inch line extending to Rawalpindi is being planned.

Potentially, the second largest field is the Uch Structure, which has estimated reserves of 2.5 trillion cubic feet. The caloric content of the gas is rather low, only 550 BTU per cubic foot. Exploratory wells have been drilled on the Mari, Zin, Kandhkot, and Mazrani Structures, indicating additional reserves of at least several hundred billion cubic feet. There is little data on the quality of the gas in these potential fields, but presumably it has a rather low caloric value, except for the Mari Structure, in which the methane content of the gas is about 75 percent.

In May 1960, the "Oil and Gas Journal" estimated Pakistan's gas reserves at 11 trillion cubic feet, with an average methane content of 70 percent. Reserves, both in the Sui and Uch Structures, and in the less explored fields, are undoubtedly much higher than the published estimates. The usual practice of oil companies is to estimate "proven reserves," that is, recoverable hydrocarbons in areas which have either been developed by drilling, or are immediately adjacent to developed areas and are virtually certain of productive development.

To estimate the number of years' supply of natural gas, we must compare these figures with present and possible future yearly gas consumption. At the 1959 production rate of 50 million cubic feet per day, the Sui field reserves as now estimated would be adequate for nearly 300 years. If all the future electric power required for tubewell and drainage pumping in the Indus Plain were produced by burning natural gas, and if, in addition,