with petroleum companies to field-test advanced technologies, and to harness the various research capabilities of Canada in the search for new concepts for the recovery and upgrading of bitumen and heavy oils.

AOSTRA is actively pursuing opportunities for international co-operative programs of technology development including the exchange and training of personnel, technology transfer, and the provision of assistance for resource evaluation. With the United States and Venezuela, Alberta is a founding member of a world information centre on oil sand and heavy oil technology.

## 2.2 Oil Shales

Although Canada does possess substantial oil shale deposits, these resources are of low quality, and interest has centered on the more promising and economic opportunities for liquid fuels in heavy oil upgrading, oil sands, and coal liquefaction. Oil shale development is unlikely in Canada in the foreseeable future, although there is currently some significant activity in the resource evaluation area. This expertise together with Canadian mining and oil upgrading expertise would, however, be transferable to oil shale development in other countries.

## 2.3 Alternative Liquid Fuels

Liquid fuels are of particular importance to Can'ada, firstly because at present this is the one fuel Canada does not produce in sufficient guantity to meet domestic needs (other fuels are in surplus supply); and secondly because of their convenience for transportation, which for a country the size of Canada is a large element in energy demand.

Opportunities for new fuel products and new sources of liquid fuels such as gas, coal, wood and garbage are therefore being pursued aggressively.

Biomass sources and liquid products are discussed in more detail in Section 2.11. While coal will not be further discussed as it is not one of the subjects of this conference, it should be noted that Canada has a large resource base of coal and is actively developing liquefaction options. In addition, propane is produced in Canada, mainly in the west (105,000 barrels per day). While transportation facilities eastward require expansion, demonstration and financial incentive programs by federal and some provincial governments are beginning, in order to increase consumer acceptance of this fuel particularly for fleet motor vehicles.