joined to the Britamoil pipeline south of Fenn-Big Valley field by 30 miles of small-diameter pipe constructed by Twining Pipeline Ltd. The largest trunk lines completed in Alberta in 1962 are for moving natural gas liquids (NGL). Hudson's Bay Oil and Gas Company Limited, through its Rangeland Division, constructed a 70-mile, 8-inch NGL pipeline from Sundre to the Westerose South field. The Cremona Pipe Line Division of Home Oil Company Limited completed 14 miles of 6-inch pipe from Harmattan to Sundre, and 28 miles of 6-inch from Madden to Calgary. Rangeland's and Cremona's NGL pipelines supplement their crude oil lines which serve the same general areas. Fifteen miles of NGL pipeline was laid by Peace River Oil Pipe Line Co. Ltd. from the new Carson Creek gas-cycling plant to Whitecourt.

Producers Pipelines Ltd. added 130 miles of extensions to its gathering systems in Saskatchewan, mainly in the Willmar, Oungre and Gapview regions. In Minnesota and Wisconsin, the Lakehead Pipe Line Co. Inc., Interprovincial Pipe Line Company's whollyowned United States subsidiary, added 39 miles of 34-inch loop beside its 18- and 24-inch lines. This is the largest diameter pipe yet used in the Interprovincial–Lakehead system.

In October 1962, two Canadian pipeline companies received United States presidential permission to construct pipeline facilities across the international boundary. As a result, the Aurora Pipe Line Company commenced exporting natural gas liquids at a rate of about 11,000 bbl. a day from Alberta to Montana, and Interprovincial Pipe Line Company started building a lateral line to Buffalo, N.Y., capable of moving 20,000 bbl. a day of crude oil.

Interprovincial Pipeline.—Canada's longest oil pipeline, the system of Interprovincial Pipe Line Company, extends from the Redwater field, 29 miles northeast of Edmonton, Alta., to Port Credit near Toronto, Ont. This includes the part of the line passing through the United States which is operated by Interprovincial's subsidiary, Lakehead Pipe Line Company Incorporated. The total right-of-way distance of the whole system is 1,928 miles, although there is considerably more pipe than this in the system because of looping. Upon completion of the 1963 construction program, the throughput capacities of various sections of the system will range between 170,000 bbl. a day between Sarnia and Port Credit, Ont., and 494,000 bbl. a day between Cromer and Gretna, Man.

Trans Mountain Pipeline.—The system of Trans Mountain Pipe Line Company extends from Edmonton to Vancouver, enabling West Coast refineries to use Alberta crude oil. The system, completed in 1953, consists of 718 miles of 24-inch pipeline plus two 50-mile loops. Extensions into the State of Washington carry crude to refineries at Ferndale and Anacortes. In 1962, deliveries totalled 198,300 bbl., well above the throughput of previous years but still considerably below the 250,000-bbl. capacity of the system. In earlier years, there were two main crude oil receiving terminals on the line, at Edmonton and Edson. In 1962, the Western Pacific pipeline began delivering British Columbia crude at Kamloops, thus establishing a third point of delivery to the Trans Mountain system.

Other Oil Pipelines.—The pipeline of Western Pacific Products & Crude Oil Pipelines Ltd. consists of 504 miles of 12-inch pipe extending from Taylor in northeastern British Columbia to Kamloops where it joins Trans Mountain pipeline. Trans-Prairie Pipelines, Ltd. and British Columbia Oil Transmission Co. Ltd. deliver oil to the Taylor terminal from fields in northeastern British Columbia.

In Alberta, Federated Pipe Lines Ltd. serves fields in the Swan Hills region with two pipelines to Edmonton which have a combined capacity of 67,000 bbl. a day. Peace River Oil Pipe Line Co. Ltd. has a line from the Kaybob and Windfall fields to Edmonton and one from the Sturgeon Lake field to the Trans Mountain pipeline at Edmonton. Pembina Pipe Line Ltd. gathers crude from the Pembina and adjacent fields. Britamoil Pipe Line Company Limited operates a pipeline that begins 140 miles south of Edmonton in the Drumheller area and gathers crude from several fields en route to Edmonton, and the Edmonton Pipe Line Company transports crude from the Joarcam and Camrose fields 40 miles south of Edmonton. Most of the other fields between Calgary and Edmonton are served by a composite pipeline system owned by three companies: Texaco Exploration