adding 455 miles of 24 inch diameter pipe in loops parallel to the original line in Canada and 196 miles of 26 inch loop in the United States. In addition a new pumping station was built, eight other pumping stations were enlarged and storage tank facilities of approximately 862,000 bbl. capacity were installed. The total investment in the Interprovincial pipeline system at the end of 1954 was \$224,000,000.

The Interprovincial system in 1955 had daily pumping facilities of 217,000 bbl. between Edmonton and Regina, 193,000 bbl. between Regina and Gretna, 163,000 bbl. between Gretna and Superior, and 147,000 bbl. between Superior and Sarnia. The latter two sections of the system are operated by the Lakehead Pipe Line Company Incorporated, a United States subsidiary of the Interprovincial Pipe Line Company. Pipeline receipts of oil in 1954 totalled 67,600,000 bbl., a 25 p.c. increase over 1953. By mid-1955 the system was receiving 250,000 bbl. daily and deliveries of Prairie crude oil were being made either directly or by spur lines to refineries at Saskatoon, Moose Jaw and Regina in Saskatchewan, Brandon and Winnipeg in Manitoba, Wrenshall, Minn., Superior, Wis., and Sarnia, Ont. From Sarnia some crude oil was moving to refineries at Toronto and Port Credit by lake tanker. In addition, Saskatchewan crude oil from the Swift Current 'area commenced to move to St. Paul, Minn., via the Interprovincial pipeline and two other lines. Cost of transporting oil from the main Alberta collecting point at Edmonton to Regina is 23½ cents, to Gretna 36 cents, to Superior 44 cents and to Sarnia 64 cents.

Trans Mountain Pipe Line Company Limited completed its 718 mile, 24 inch diameter line between Edmonton and Vancouver in October 1953. During 1954 a 24 mile spur line of 20 inch and 16 inch diameter pipe was constructed from Sumas, B.C., across the International Boundary to Ferndale, Wash., where the General Petroleum Corporation completed its new refinery in October of that year. In 1955 this spur line was extended 36 miles southwestward to the new Shell Oil Company refinery at Anacortes. The Trans Mountain pipeline has installed pumping capacity of 150,000 bbl. daily within four pumping stations; provision for the addition of ten more stations allows for an ultimate daily capacity of 300,000 bbl.

Six major feeder lines supply the Trans Mountain system with Alberta crude oil at Edmonton. Oil is delivered to one refinery at Kamloops, B.C., three near Vancouver, and two in the State of Washington. The 1954 daily average crude oil deliveries amounting to 39,787 bbl. had increased to 70,000 bbl. by mid-1955 and further increases were anticipated. The pipeline tariff per barrel from Edmonton to Vancouver is 45 cents.

Construction work continued on Canada's oil gathering lines which supply the two large cross-country systems. Late in 1954 Pembina Pipe Line Company Limited completed a 72 mile, 16 inch diameter transmission line from a pumping station location near the town of Drayton Valley, Alta., to Edmonton to take delivery of oil from Pembina oil field. Its initial capacity is 115,000 bbl. daily. A gathering system in the Pembina field is being enlarged as new wells are drilled and eventually will collect oil from as many as 4,000 wells. Daily deliveries of the Pembina pipeline averaging less than 10,000 bbl. in 1954 were nearing the 40,000 bbl. mark by mid-1955 and greater increases were anticipated. During 1955 a 106 mile pipeline of 57,000 bbl. daily capacity was built from Sturgeon Lake oil field southward to the Trans Mountain pipeline at Edson, Alta. Canadian Gulf Pipe Line Company constructed a 36 mile line to link the Joffre and Clive oil fields to the main line near Stettler, Alta. The main line takes delivery of oil from Big Valley, Stettler and other fields along a 136 mile trunk line route between Big Valley field and Edmonton.

In Saskatchewan, South Saskatchewan Pipe Line Company constructed a 158 mile, 16 inch diameter pipeline in 1954 from Cantuar, near Swift Current, to Regina for the purpose of transporting medium-gravity crude oil from the Fosterton-Cantuar-Success group of fields to the Interprovincial pipeline. The crude is then transported via the Interprovincial pipeline to Clearwater, Minn., where another new pipeline transports it southward to a refinery near St. Paul, Minn. Present capacity of the \$10,000,000 South Saskatchewan pipeline is 20,000 bbl. daily. Oil shipments were started in June 1955.