

near Port Colborne, Ont., and was undertaken by the Port Colborne Gas, Light and Fuel Company. It reached a depth of 763 ft. and had a capacity of only 7,000 cu. feet a day. However, this was the beginning of a considerable expansion of drilling which led to development of gas areas in Humberstone and Bertie townships in Welland county. In 1891, so much gas was available that the Provincial Natural Gas and Fuel Company began to export it across the border to Buffalo, N.Y. At that time there were 15 wells with an average open flow of 2,500 M cu. feet per day and the field covered about 28 sq. miles. The present city of Welland was supplied with natural gas in 1893 and Niagara Falls in 1904. Export ceased in 1908 with the decline of pressures in the gas area.

In Kent county a number of gas fields were found beginning with the Tilbury field in 1906. In 1921, the Dawn gas field in Lambton county was discovered and for some years this field has been used by the Union Gas Company for storage of gas obtained partly from the United States in the off-peak season for use during the winter when the demand is at a maximum. Since 1930, there has been a reasonably intense search for gas fields with considerable success in southwestern Ontario. Reserves of gas are estimated at 150,000,000 M cu. feet and, taking into consideration the curtailment of outlets, the supply position at present is relatively good. Markets could be greatly extended if large gas volumes were available at attractive competitive prices. Many of the cities in southwestern Ontario, including Toronto, have plants that make artificial gas, mainly from coal. This gas has a heating value of less than one-half that of natural gas and sells at a considerably higher price per unit volume. This puts it in a very unfavourable position compared with natural gas but on account of the convenience it is used quite extensively, particularly for cooking and for water heating. It is piped only within each distributing area where the gas is manufactured.

In the early days* transportation in the oil fields of Ontario was by horse-drawn wagons. "In 1862 there were 400 teams drawing oil from Oil Springs to Wyoming station, a distance of 13 miles" but later the field expanded and in 1880 there were many more teams. In 1875, small-sized pipelines were built from the wells to the main gravelled road and later these were collected into receiving stations. Presumably these were the first oil-gathering lines in Ontario.

Early Pipelines in Alberta.—In Western Canada the first pipeline of considerable length was built in 1912 from the Bow Island gas field in southern Alberta to Calgary. The main pipeline was 16 inches in diameter and 170 miles long. Branch lines were constructed to supply gas to the various towns *en route*. In 1921, when the early developments following the 1914 boom in Turner Valley gave some substantial flows of gas, a 6-inch line was built from Turner Valley to Okotoks where it joined the main Bow Island-Calgary gas line. In 1924, a connection was made by 10-inch pipeline from Bow Island to Foremost, about 30 miles distant. In 1928, after Turner Valley had been developed considerably following the finding of large gas volumes in the Palæozoic limestone in 1924, a 14-inch gas pipeline was built from the field to Pine Creek at DeWinton where it joined the Bow Island-Calgary 16-inch line. In 1930, the Bow Island field was approaching exhaustion and, as there was large wastage of gas in Turner Valley owing to an excess made available in the production of light oil, it was decided to repressure the Bow Island

* Harkness, R. B. *Canadian Oil and Gas Industries*, Vol. 4, No. 3, March 1951, p. 36.