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THE PETROLEUM REFINING INDUSTRY IN CANADA IN 1918

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THE PETROLEUM REFINING INDUSTRY

IN CANADA IN 1918

Ten petroleum refineries were operated in Canada in 1918. Three of these were located in Ontario; three in Alberta; and one in each of the provinces of Nova Scotia, Quebec, Saskatchewan and British Columbia.

The total capital employed in these ten plants at the end of the year amounted to $35,745,410, of which $23,535,257 represented land, buildings, fixtures, machinery and tools. Cash, trading and operating accounts, and bills receivable amounted to $407,408, while materials on hand, stocks in process, finished products, fuel and miscellaneous supplies on hand were valued at $11,802,745.

EMPLOYEES, SALARIES AND WAGES

The average number of wage-earners engaged in these refineries was 2,938. Wages paid allowed a per capita payment of $1,175, or a total sum of $3,451,642. The salaried employees numbered 272. The average payment to these was $1,366, the total sum having been $371,676, of which $91,459 went to officers, superintendents and managers.

The following table shows the distribution of the working staff on December 15, 1918. The works sub-total (3060) in the table is somewhat larger than the average number of wage-earners (2938) mentioned above, due to the fact that the number on the pay-roll increased to some extent in December, the month in which distribution was made.

TABLE I-DISTRIBUTION OF NORMAL WORKING STAFF

	1918	
SALARIED EMPLOYEES:	Male	Female
Officers, superintendents and managers.....	27	1
Clerks, stenographers, salesmen and other salaried employees.....	189	55
OFFICE SUB-TOTAL.....	216	56
WAGE-EARNERS, receiving per week:		
Less than $10.....	3	11
$10, but less than $15.....	76	6
$15, but less than $20.....	848	...
$20, but less than $25.....	788	1
$25. [illegible] and over.....	1327	...
WORKS SUB-TOTAL.....	3042	18
GRAND TOTAL.....	3258	74

FUEL

The total cost of fuel used in the refineries, exclusive of any supplied to employees, was $3,242,796. Of this sum, the larger portion, or $1,721,642, was given as the value of oil and gasoline used; $1,425,850 for 247,423 tons of bituminous coal of various grades; and the balance or $95,304 for petroleum coke and natural gas.

The following table shows the source, kind, quantity and cost at the works of all the fuel used during the year.

Table 2, FUEL USED.

Kind	Unit of Measure	CANADIAN Quantity	CANADIAN Cost at Works	FOREIGN Quantity	FOREIGN Cost at Works
Bituminous coal, slack..	Short tons	16,725	$72,252	211,127	$1,222,474
" " lump...	"	...	...	8,088	$ 56,616
" " run of mine	"	1,214	$ 9,402	10,269	$ 65,106
Gas (natural).....	1000 cu.ft.	186,783	$22,241	...	...
T O T A L.....			$103,895		$1,344,196

Kind	Unit of Measure	Quantity	Assigned Value
Petroleum Coke, produced chiefly from imported crude oil.....	Short tons	19,880	$ 73,063
Gasoline produced chiefly from imported crude oil.....	Gals.	15,891	$ 4,092
Oil (fuel) produced from imported crude oil.. (chiefly).....	"	21,623,649	$1,717,550
TOTAL.....			$1,794,705
GRAND TOTAL.....			$3,242,796.

MATERIALS USED

According to reports from the refineries 262,641,149 gallons of crude oil was received at the works of which 12,258,184 gallons was from Canadian wells, and 250,382,965 gallons, imported. The total cost of oil received at the works was $23,708,658, of which $22,789,762 was paid for the imported oil and $918,896 for the product of Canadian wells.

The consumption of oil reported showed 261,742,274 gallons of crude oil as having been used at the works. Of the total quantity 10,050,783 gallons was from Canadian wells and 251,691,491 gallons from the United States. The imported oil cost $21,890,862, and the product of Canadian wells, $882,230.

The following table shows the kind, quantity and cost at the works of all the materials used during the year:

TABLE 3-MATERIALS USED

KIND	Unit of Measure	Quantity	Value
Crude oil, product of Canadian wells	Gals.	10,050,783	$ 882,230
" " imported.....	"	251,691,491	21,890,862
Sulphuric Acid.....	lbs.	38,224,856	408,482
Caustic Soda.....	"	1,993,251	45,782
Litharge.....	"	97,319	11,886
Sulphur.....	"	52,302	2,234
Other materials (value only).....			843,942
Cooperage stock (value only).....			369,157
TOTAL.....			$24,454,575

PRODUCTS

The total production, according to reports to the Bureau of Statistics, had a selling value at the refineries of $37,866,907. Of this sum, $19,247,402, or 50.8% was the value of 72,169,916 gallons of gasoline and motor oils; $7,130,301, or 18.8% was the value of 56,220,066 gallons of illuminating oils, and $6,629,980, or 17.5%, of 84,784,278 gallons of fuel and gas oil and tar.

The following table shows the total production of the various commodities, with their selling values at the refineries:

TABLE 44PRODUCTS.

KIND	Unit of Measure	Quantity	Selling Value at the Works
Gasoline and motor oils....	Gals.	72,169,916	$ 19,247,402
Benzene, benzoline and other petroleum spirits.....	"	1,530,867	384,901
Illuminating oils.....	"	56,220,066	7,130,301
Lubricating oils.....	"	14,401,703	2,571,367
Wax and candles.....	lbs.	13,490,528	1,136,311
Fuel and gas oil and tar...	Gals.	84,784,278	6,629,980
Grease.....	lbs.	7,435,605	525,274
All other products, including asphalt and petroleum coke.....			241,371
TOTAL.....			$37,866,907

MISCELLANEOUS EXPENSES

The miscellaneous expenditures chargeable against production and sales amounted to $2,129,825 during the year. Of this sum $859,197 or 43.4% was paid for repairs to buildings and machinery.

The following table gives the miscellaneous expenditures for the year:

TABLE 5-MISCELLANEOUS EXPENDITURES

Rent of offices, works and machinery	$ 11,700
Rent of power	13,581
Insurance (premium for year only)	14,837
Taxes-(Internal Revenue, War, etc.	36,574
Taxes-(Provincial and Municipal	25,073
Royalties, use of patents, etc.	177,204
Advertising expenses	3,755
Travelling expenses	17,078
Repairs to buildings and machinery	859,197
All other sundry expenses (not including fuel costs, materials used, salaries and wages)	37,970,776
	$2,129,825

IMPORTS AND EXPORTS

The total value of imports of petroleum and petroleum products in 1918 was $13,127,178, of which $13,359,636 was paid for 229,010,561 gallons of crude oil imported by oil refiners to be refined in their own factories.

Exports of crude coal oil or kerosene in 1918 were 270,302 gallons valued at $28,415, and of refined oil $1,946,967 gallons valued at $206,675. There was also an export of naphtha or gasoline of 91,229 gallons valued at $28,778.

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