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DOMINION BUREAU OF STATISTICS - CANADA
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## IRON OXIDES (OCHRE) 1933.

Sales of ochreous iron oxide in Canada during 1933 totalled 4,357 tons valued at \$53,450 as compared with an output of 5,240 tons worth \$46,161 in 1932, according to finally revised statistics just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. This material, during 1953, came entirely from the provinces of Quebec and British Columbia, deposits in the former province contributing 96 per cent of the total. The greater part of the recent production in Quebec has originated at Red Mill, Point du Lac and Les Forges, these deposits all being situated near Three Rivers; in British Columbia the mineral was mined near Rainbow Lodge.

In Quebec the preparation of the crude oxide in 1933 included dehydration, calcining and milling with air flotation; products from properties in this province were marketed in Canada, United States and England. The Canadian output of uncalcined natural ochre is employed principally in the purification of artificial fuel gas whereas the calcined product is absorbed in the paint industry; the output of the mineral in British Columbia is utilized solely in gas plants.

The Department of Mines, Ottawa, reports that the present producing localities have met the requirements of the domestic pigment trade for the cheaper grades for many years past; should the demand increase, there are other prospective deposits which could be drawn upon, two of which are located in Saguenay county, Quebec. In Nova Scotia there are various beds of ochres and umbers which have been worked to some extent in the past and deposits of ochres are also known to exist in Alberta.

During 1952 research work conducted at Red Mill, Quebec, resulted in an improved process of furnacing natural iron oxides; pigments of greater strength and brilliance than formerly made were obtained experimentally.

The following brief description of the treatment of ochres in the southern United States is from The Engineering and Mining Journal and may prove of interest to Canadian producers of natural iron oxides:

"The crude other mined on the company's property in the Cartersville region is separated into two grades—light and dark ... the ore is passed through a common log washer to remove coarse rock, hard iron and sand. The other goes into suspension with water and the pulp is then screened and flumed to cone classifiers for further removal of fine sand down to 300 mesh. Overflow from these cones, carrying the other in suspension, is then flumed to Dorr tanks, from which the other mud is pumped into tempering tanks and thence into revolving steam drums for drying. After drying the other is stocked in bins to be later passed through a beater mill and packed as required."

Principal Statistics of	the Natural Iron	Oxides Industry	in Canada	a. 1932 and 1933.

	1932	1933
Number of firms	4	4
Capital employed 5:	206,863	156,551
Number of employees - Un salaries	1	2
Un wages	25	20
Total	26	22
Salaries and wages - Salaries\$	<u>26</u> 3,240	3,212
Wages\$	19,669	12,419
Total\$	22,909	15,631
Cost of fuel and electricity\$	5,993	5,755
Selling value of products\$	46,161	53,450
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Production in Canada, Imports and Exports of Iron Oxides	. 1932 and 193	3.
1 9 3	2 1	9 3 3
Quantity	Value Quant	ity Value

PRODUCTION (SALES) -	Quantity Tons	Value \$	Quantity Tons	Value \$
Quebec		44,161 2,000	4,192 165	51,965
British Columbia	5,240	46,161	4,357	53,450
IMPORTS - Ochres, ochrey earths, siennas and umbers Oxides, fireproofs, rough stuff, fillers and	. 1,212	41,806	1,077	35,595
colours, dry, n.o.p	2,359	616,124	2,491	573,607
EXPORTS —				minimate milliographysm i ganty mographysmy. Mildramstrateds
Mineral pigments, iron oxides, ochres, etc.	785	55,306	1.,287	73,139

Ochre prices in the United States were quoted April 19, 1934 in "Metal and Mineral Markets" as follows: per ton, f.o.b. Georgia mines, \$19 in sacks; \$22.50 in barrels. Buff clay, 98 per cent through 325 mesh, \$19. F.O.B. Virginia, dark yellow, 300 mesh, 60 per cent ferric oxide, in jute bags, \$19.50.

"Canadian Chemistry and Metallurgy" quote iron oxide Canadian prices, April, 1934, as follows: Red, natural, lb. .02-.08; Red, artificial, lb. .05-.10; Black, C.P., .15; Yellow, conc., ppt., casks, lb. .09-.13; Yellow, domestic, ppt., lb. .054-.06.

General imports of mineral earth pigments into the United States during 1933 were as follows:-

	Pounds	<b>9</b> .
Iron oxide and iron hydroxide (dutiable)	13,202,467	257,137
Ochres and siennas (dutiable)	11,147,022	170,773
Other mineral-earth pigments (dutiable)	900	322,106

Imports of ochres and earth colours (including natural iron oxide), whether ground or not, into the United Kingdom during the three months ending March 31st, 1934, totalled 84,875 cwt. evaluated at £32,883 as compared with 48,025 cwt. at £21,222 for the same period in 1933.

Oxide or purifying materials used in Canadian coke and gas making:-

	Tons	\$
1930	5,560	52,254
1931	5,362	50,029
1932	3,736	35,284

Iron oxide pigments used in the Canadian Paints, Pigments and Varnishes Industry:-

Pounds		\$ .	
1931		1,828,540	67,752
1932	00000000000000	1,402,025	52,323

Ochres, siennas and umbers used in the Canadian Paints, Pigments and Varnishes Industry:

		Pounds	\$
1931	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1,166,860	86,539
	0000000000000000	1,025,240	48,037

## List of firms in the Canadian Iron Oxides Mining Industry, 1933.

Name of Firm	Head Uffice Address	Location of Plant
QUEBEC - Argali, Thos. H. Montmorency Paint Products Co.	639 St. Angel, Three Rivers	La Point du Lac
Ltd。	6684 St. Urbain St., Montreal	Les Forges
The Sherwin-Williams Co. of Canada, Ltd.	2875 Centre St., Montreal	Red Mill
BRITISH COLUMBIA - Davidson, J.G., and		
Thompson, J. H.	3498 Marine Drive, Vancouver	Rainbow Lodge

NOTE - The Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics issues directories of firms in the Paints, Pigments and Varnishes Industry and the Coke and Gas Industry in Canada. Copies of bulletins containing these directories will be sent on request.

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