

RDS2  
.82574  
Aug. 1980

LIBRARY / BANCHEQUE  
SEP 15 1980  
GEOLOGICAL SURVEY OF CANADA  
COMMISSION GEOLOGIQUE

# The Canadian Mineral Industry Monthly Report

**August 1980**



Energy, Mines and  
Resources Canada

Énergie, Mines et  
Ressources Canada

Minerals

Minéraux



## PREFACE

This report is prepared in the Mineral Policy Sector of the Department of Energy, Mines and Resources. It is prepared from the best information available to us from many sources, but it is only intended to be a general review of the more important current developments in the Canadian mineral industry and of developments elsewhere that affect, or may affect, the Canadian industry. It should not be considered an authority for exact quotation or an expression of official Government of Canada views.

Mineral Policy Sector  
Department of Energy, Mines  
and Resources  
580 Booth Street  
Ottawa, Canada K1A 0E4

## PRÉFACE

Ce rapport a été rédigé par le Secteur de la Politique Minérale du Ministère de l'Énergie, des Mines et des Ressources. Bien que nous ayons eu recours à de nombreuses sources pour vous fournir les meilleurs renseignements possibles, cet exposé n'a pour objet que de passer en revue les développements actuels les plus importants de l'industrie minière canadienne, de même que les progrès accomplis ailleurs qui peuvent intéresser l'industrie canadienne. On ne doit pas considérer cet exposé comme une source de renseignements précis ou comme l'expression des vues du Gouvernement canadien.

Secteur de la Politique Minérale  
Ministère de l'Énergie, des Mines  
et des Ressources  
580, rue Booth  
Ottawa, Canada K1A 0E4

This document was produced  
by scanning the original publication.

Ce document est le produit d'une  
numérisation par balayage  
de la publication originale.



## CONTENTS

1	HIGHLIGHTS - FAITS SAILLANTS
3	ECONOMIC TRENDS
9	TAXATION AND LEGISLATION AFFECTING THE MINERAL AND ALLIED INDUSTRIES IN CANADA
9	Provincial
9	British Columbia
9	New Brunswick
10	REGIONAL PROFILES
10	Alberta
13	Quebec
16	METALLIC MINERALS AND PRODUCTS
16	Aluminum
16	Copper
18	Gold
19	Lead
19	Magnesium
20	Platinum Group Metals
20	Silver
21	Zinc
21	INDUSTRIAL MINERALS AND PRODUCTS
21	Asbestos
22	Potash
23	MINERAL FUELS AND PRODUCTS
23	Crude Oil and Natural Gas
24	Uranium





## THE CANADIAN MINERAL INDUSTRY FOR AUGUST

### L'INDUSTRIE MINÉRALE DU CANADA - AOÛT

The following constitutes a brief summary of the Canadian mineral industry based upon information that became available in August.

Ceci constitue un résumé d'événements survenus dans l'industrie minière du Canada, selon les renseignements disponibles en Août.

#### HIGHLIGHTS

1. Canada's unadjusted index of Real Domestic Product was 140.1 in June, up slightly from the previous month.
2. Alcan Smelters and Chemicals Limited, announced plans to spend \$60 million to replace the present 50 000 tonne fluoride plant located at Jonquière, Québec.
3. The U.S. copper strike continued through the month of August, with only two U.S. copper producers remaining in operation.
4. Construction has been started on China's largest copper refinery in the province of Jiangxi, which will have an annual capacity of 90 000 tonnes of crude copper.
5. The two leading world platinum producers announced an increase in the producer price of platinum from U.S. \$420 per ounce to U.S. \$475 effective August 28.

#### FAITS SAILLANTS

1. L'indice non désaisonnalisé du produit intérieur réel du Canada est passé à 140,1, en Juin, soit une légère augmentation par rapport au mois précédent.
2. La Société d'Électrolyse et de Chimie Alcan Limitée a annoncé qu'elle engagera 60 millions de dollars dans des travaux de modernisation de son usine de fluorure de Jonquière (Québec).
3. Les travailleurs de l'industrie américaine du cuivre ont continué leur grève en août, réduisant à 2 le nombre des compagnies productrices de cuivre américaines en activité.
4. La Chine a commencé à construire, dans la province de Jiangxi, ce qui sera sa plus importante usine d'affinage de cuivre; cette usine aura une capacité de traitement annuelle de 90 000 tonnes de cuivre brut.
5. Les deux plus importants producteurs de platine au monde ont annoncé que le prix à la production du platine grimpera de \$É.-U. 420 à 475 dès le 28 août.



6. Mexico, through its national oil company Pemex, has agreed to supply Canada with 7 950 cubic metres per day of crude oil by the end of this year.
7. A federal environmental assessment panel has withheld support for the proposal by Eldorado Nuclear Limited to construct a \$100 million uranium refinery at Warman, Saskatchewan some 23 km northwest of Saskatoon.
8. Energy Resource of Australia (ERA), a consortium of Australian, West German and Japanese companies has signed long-term contracts, subject to government approval with West Germany and Japan for the sale of some 25 156 tonnes U.
6. Le Mexique, par la voie de sa société pétrolière nationale Pemex, a convenu d'exporter du pétrole brut au Canada jusqu'à la fin de l'année à raison de 7 950 m<sup>3</sup> de pétrole par jour.
7. Une commission fédérale d'évaluation environnementale a refusé d'appuyer le projet de l'Eldorado Nucléaire Limitée, qui désire construire au coût de 100 millions de dollars, une raffinerie d'uranium à Warman (Saskatchewan) à environ 23 km au nord-est de Saskatoon.
8. L'Energy Resources of Australia (ERA), consortium de sociétés australiennes, allemandes (R.F.A.) et japonaises, a conclu des contrats à long terme prévoyant la vente d'environ 25 156 tonnes d'uranium, sous réserve d'obtenir l'approbation des gouvernements de l'Allemagne de l'Ouest et du Japon.

## ECONOMIC TRENDS

Table 1 shows Canada's unadjusted indexes of Real Domestic Product (RDP). The overall index in June was 140.1, up slightly from 139.8 in the previous month.

The RDP index for Mines, Quarries and Oil Wells increased 3.9 per cent in June with Metal Mines, Mineral Fuels and Nonmetal Mines all showing increases of 2.2 per cent, 3.9 per cent and 9.0 per cent respectively.

In the manufacturing sector Primary Metal Industries was up slightly over the month while Steel Pipe and Tube Mills increased 18.3 per cent.

Table 2 compares volume of production in major Canadian minerals. Significant changes in output were recorded in June 1980 in copper (up 13.4 per cent); lead (down 59.3 per cent); molybdenum (down 19.7 per cent); zinc (down 25.0 per cent); asbestos (up 40.3 per cent) and potash (up 37.3 per cent).

Tables 3 and 4 show the percentage of capital and repair expenditures made by Canadian-controlled establishments in mining and selected industries.

Table 5 records the latest available Industry Selling Price Indexes for selected industries.



TABLE 1

Canada, Indexes of Real Domestic Product, by Industries Unadjusted (1971=100)

Industry or Industry Group	1979			1980			Percentage Changes			
	May	Average 1st 6 Months		May	Average 1st 6 Months		May 1980	June 1980	June 1980	1st 6 Months 1980 1979
		June	1979		June	1979	May 1980	June 1979	May 1980	
Real Domestic Product	139.8	140.9	135.6	139.8	140.1	136.5	0.0	-0.6	0.2	0.7
Primary Industries										
Agriculture	137.6	13.4	74.4	153.5	29.3	79.1	11.6	118.7	-80.9	6.4
Forestry	95.3	129.0	114.7	76.8	87.4	103.2	-19.4	-32.2	13.8	-10.1
Fishing and Trapping	220.1	216.8	111.3	179.5	208.1	101.0	-18.4	-4.0	15.9	-9.3
mines, Quarries and Oil Wells	112.5	116.8	112.3	120.2	124.9	119.7	6.8	6.9	3.9	6.6
Metal Mines	83.5	85.0	80.5	99.9	102.1	97.7	19.6	20.1	2.2	21.4
Placer and Gold Quartz Mines	56.5	54.7	58.1	52.1	55.5	54.5	-7.8	1.5	6.5	-6.1
Iron Mines	119.0	129.9	107.8	115.2	123.5	103.9	-3.2	-4.9	7.2	-3.6
Other Metal Mines	76.0	75.4	74.8	98.4	99.0	98.2	29.5	31.3	0.6	31.3
Mineral Fuels	123.0	125.9	127.1	121.2	125.9	123.6	-1.5	0.0	3.9	-2.8
Coal Mines	268.4	258.8	244.4	268.1	298.7	245.8	-0.1	15.4	11.4	0.6
Crude Petroleum and Natural Gas	111.1	115.0	117.5	109.2	111.7	113.6	-1.7	-2.9	2.3	-3.3
Nonmetal Mines	127.5	146.6	132.6	133.7	145.7	137.8	4.9	-0.6	9.0	3.9
Asbestos Mines	92.7	107.7	93.9	82.0	100.5	89.1	-11.5	-6.7	22.6	-5.1
Secondary Industries										
Manufacturing	137.3	143.9	136.2	130.3	138.5	133.4	-5.1	-3.8	6.3	-2.0
Nondurable Manufacturing	134.5	143.1	134.0	133.2	141.6	134.6	-1.0	-1.0	6.3	0.4
Petroleum and Coal Products Industries	129.5	145.7	140.4	130.4	143.1	141.8	0.7	-1.8	9.7	1.0
Durable Manufacturing	140.1	144.7	138.3	127.4	135.3	132.2	-9.1	-6.5	6.2	-4.4
Primary Metal Industries	131.7	120.8	128.6	124.2	126.6	131.8	-5.7	4.8	1.9	2.6
Iron and Steel Mills	150.2	146.9	147.4	137.4	142.3	149.9	-8.5	-3.1	3.6	1.7
Steel Pipe and Tube Mills	115.9	139.5	121.7	107.9	127.6	123.2	-5.9	-8.5	18.3	1.2
Iron Foundries	127.9	124.7	133.0	100.1	105.6	107.2	-21.7	-15.3	5.5	-19.4
Smelting and Refining	99.9	68.6	92.9	111.1	107.5	111.0	11.2	56.7	-3.2	19.5
Nonmetallic Mineral Products Industries	127.3	149.9	112.6	118.7	132.9	106.4	-6.8	-11.3	12.0	-5.5
Cement Manufacturers	154.9	194.6	121.0	151.0	174.6	114.0	-2.5	-10.3	15.6	-5.8
Ready-mix Concrete Manufacturers	125.1	156.5	86.5	125.1	136.1	84.6	0.0	-13.0	8.8	-2.2
Construction Industry	120.9	139.0	111.2	112.1	123.8	104.8	-7.3	-10.9	10.4	-5.7
Transportation, Storage, Communication	156.7	163.3	152.8	161.2	166.9	157.9	2.9	2.2	3.5	3.3
Electric Power, Gas and Water Utilities	151.9	145.2	176.7	152.5	142.2	179.6	0.4	-2.1	-6.8	1.6
Trade	149.1	156.1	138.5	144.4	148.7	135.6	-3.2	-4.7	3.0	-2.1
Finance, Insurance, Real Estate Community, Business and Personal Service	151.6	154.8	151.2	158.4	160.4	158.5	4.5	3.6	1.3	4.8
Public Administration and Defence	138.1	139.3	137.9	143.1	144.1	141.6	3.6	3.4	0.7	2.6
Public Administration and Defence	129.5	132.8	127.7	128.9	132.3	127.0	-0.5	-0.4	2.6	-0.6

TABLE 2  
Canada, Production of Leading Minerals  
('000 tonnes except where noted)

		1979			1980			Percentage Changes		
		May	June	Total 6 months	May	June	Total 6 months	June 80	June 80	1st 6 months
								June 79	May 80	1980 1979
<b>Metals</b>										
Copper		45.2	38.6	264.8	58.2	66.0	369.8	+71.0	+13.4	+39.7
Gold	kg	4 025.4	3 637.1	24 161.9	4 166.8	4 088.1	24 298.3	+12.4	-1.9	+0.6
Iron ore		6 578.1	6 458.9	24 564.9	5 622.8 <sup>r</sup>	5 181.9	21 628.2	-19.8	-7.8	-12.0
Lead		27.8	31.2	167.1	33.2	13.5	132.3	-56.7	-59.3	-20.8
Molybdenum	t	868.4	800.6 <sup>r</sup>	5 922.0 <sup>r</sup>	1 247.3	1 002.2	6 266.0	+25.2	-19.7	+5.8
Nickel		8.1	10.9	46.8	18.7	16.5	100.9	+51.4	-11.8	+115.6
Silver	t	99.4	85.3	575.7	107.0	86.8	589.5	+1.8	-18.9	+2.4
Uranium <sup>1</sup>	t	497.4	562.5 <sup>r</sup>	3 003.3 <sup>r</sup>	533.5	604.0	3 256.5	+7.4	+13.2	+8.4
Zinc		132.6	93.8	578.4	76.5	57.4	436.2	-38.8	-25.0	-24.6
<b>Nonmetals</b>										
Asbestos		120.0	138.8	715.7	89.3	125.3	601.5	-9.7	+40.3	-16.0
Clay products	\$000	..	..	..	10 760.0	9 712.2	47 972.6	..	-9.7	..
Gypsum		708.9	802.7	3 491.9	645.9	573.0	3 474.1	-28.6	-11.3	-0.5
Potash K <sub>2</sub> O		577.2	676.1	3 515.2	450.7	618.9	3 394.6	-8.5	+37.3	-3.4
Cement		1 132.4	1 340.9	4 531.3	1 072.1	1 079.7	4 228.6	-19.5	+0.7	-6.7
Lime		..	..	..	178.1	168.2	1 022.7	..	-5.6	..
Salt		450.8	493.0	3 264.9	493.3	571.6	3 349.7	+15.9	+15.9	+2.6
<b>Fuels</b>										
Coal		2 923.6	2 753.6	16 450.9	2 907.6	3 061.8	17 248.3	+11.2	+5.3	+4.8
Natural gas	million m <sup>3</sup>	7 545.0	6 910.6	48 711.6	6 740.1 <sup>r</sup>	6 076.2	45 297.0	-12.1	-9.9	-7.0
Crude oil and equivalent	000 m <sup>3</sup>	7 566.3	7 646.1 <sup>r</sup>	45 949.2 <sup>r</sup>	7 522.4 <sup>r</sup>	6 943.0	44 411.6	-9.2	-7.7	-3.3

<sup>1</sup> Tonnes uranium (1 tonne U = 1.299 9 short tons U<sub>3</sub>O<sub>8</sub>).

<sup>r</sup> Revised; .. Not available.



TABLE 3

Canada, Percentage of Capital and Repair Expenditures<sup>1</sup> by Canadian Controlled Establishments<sup>2</sup> in the Mining Industry

	Capital			Repair			Capital and Repair		
	1978	1979	1980	1978	1979	1980	1978	1979	1980
Metal Mines	62.6	52.1	46.6	40.9	43.6	45.3	52.1	48.6	46.1
Nonmetal Mines	48.4	40.5	51.5	39.0	33.7	47.0	44.4	37.4	49.6
Petroleum and Gas	36.5	36.8	39.6	28.5	21.0	21.3	35.4	34.9	37.9
Total Mining Industry	41.7	39.6	41.6	35.9	33.1	37.3	40.2	38.2	40.9

<sup>1</sup> Actual expenditures 1978, preliminary actual 1979, intentions 1980. <sup>2</sup> Canadian control is defined in the Statistics Canada report: Domestic and Foreign Control of Manufacturing, Mining and Logging Establishments in Canada.

TABLE 4

Canada, Percentage of Capital and Repair Expenditures<sup>1</sup> by Canadian Controlled Establishments<sup>2</sup> in Selected Industries

	Capital			Repair			Capital and Repair		
	1978	1979	1980	1978	1979	1980	1978	1979	1980
Primary Metal Industries	85.9	83.7	89.2	87.0	89.1	89.8	86.5	86.7	89.5
Metal Fabricating Industries	57.7	62.2	55.3	61.8	61.8	61.7	59.3	62.1	57.4
Nonmetallic Mineral Products Industries	37.9	44.2	40.8	38.5	39.0	37.6	38.1	42.4	39.6
Total Manufacturing Industries	51.9	52.0	47.9	57.5	56.8	57.7	54.0	53.7	51.0

<sup>1</sup> Actual expenditures 1978, preliminary actual 1979, intentions 1980. <sup>2</sup> Canadian control is defined in the Statistics Canada report: Domestic and Foreign Control of Manufacturing, Mining and Logging Establishments in Canada.

TABLE 5

Industry Selling Price Indexes, Selected Industries<sup>1</sup>, 1971 = 100

	Average 1st 6 months		Percentage changes			
	1979	1979	1980	<u>1978</u> 1977	<u>1979</u> 1978	1st 6 months 1980/1979
	Primary metal industries	258.8	244.4	306.1	9.1	24.5
Iron and steel mills	233.7	225.5	256.6	8.5	14.6	13.8
Steel pipe and tube mills	248.1	242.7	269.2	10.2	13.8	10.9
Iron foundries	223.3	217.6	238.1	5.5	11.6	9.4
Smelting and refining	303.9	277.3	398.6	9.9	37.8	43.7
Aluminum rolling, casting and extruding	234.0	224.2	263.4	10.3	22.2	17.5
Copper rolling, casting and extruding	201.8	193.7	228.0	5.9	31.9	17.7
Metal rolling, casting and extruding nes	310.4	297.2	332.1	10.9	29.4	11.7
Nonmetallic mineral products industries	210.0	208.1	231.0	8.3	9.2	11.0
Clay products manufacturers <sup>2</sup>	214.3	213.5	222.8	7.4	9.1	4.4
Cement manufacturers	233.3	230.8	265.3	11.1	12.4	15.0
Lime manufacturers	292.8	286.3	329.0	10.6	15.8	14.9
Gypsum products manufacturers	169.8	169.1	180.9	1.9	7.1	7.0
Concrete products manufacturers	200.1	199.4	219.8	4.2	7.8	10.2

<sup>1</sup> Based on the 1960 Standard Industrial Classification. <sup>2</sup> Domestic clays.  
nes Not elsewhere specified.



## TAXATION AND LEGISLATION AFFECTING THE MINERAL AND ALLIED INDUSTRIES IN CANADA

### Provincial

#### British Columbia

The Mineral Act, R.S.B.C. 1979, C.259 is amended by the Mineral Amendment Act, 1980, Bill 62.

A new section 8 clarifies and expands the powers of the Lieutenant Governor in Council respecting the creation of mineral reserves under the Act.

The amendment to section 22(3) expands, from 40 to 100, the number of units, etc. that may be grouped together.

The new section 50 provides that the chief gold commissioner rather than the minister, will determine complaints respecting the location and recording of mineral claims and the carrying out of the exploration and development obligations.

A new section provides an appropriation up to \$25,000 to cover any refunds that may be made under section 8(2)(g).

#### New Brunswick

The Grand Lake Development Corporation Act, R.S.N.B. 1973, C.G-5, is repealed by S.N.B. 1980, Bill 25.

The Quarriable Substances Act R.S.N.B. 1973, C.Q-1, is amended by S.N.B., 1980, Bill 20.

"Clay and soil" is added to the definition of "quarriable substances" in section 1.

In section 11(4) the incorrect reference to "exploration permit" is corrected to read "exploration licence".

In section 18(1) the maximum fine of \$100 becomes the minimum fine, and the maximum is increased to \$500.

The regulation making authority to cover exploration licences is expanded.

## REGIONAL PROFILES

## Alberta

An oil-pricing agreement between Alberta and the federal government could not be concluded by the late July deadline and Alberta unilaterally raised oil prices on August 1 by \$2 per barrel.

## Principal Mineral Production, 1979P

Commodity	Value (\$'000)	Change From 1978 (per cent)	Proportion of Canada
Crude Petroleum	6,686,481	36.1	87.9
Natural Gas	4,265,148	18.8	90.6
Natural Gas By-Products	1,313,770	27.1	97.2
Coal	231,500	9.9	27.0
Cement	155,783	37.2	21.1
Sulphur	141,942	42.4	97.8
Sand and Gravel	55,900	20.4	12.4
Clay Products	11,500	2.7	9.2
Salt	7,939	11.5	7.0
Lime	6,475	27.0	8.2
Peat	3,073	-36.7	9.1
Sodium Sulphate	2,184	-6.7	8.3
Quartz	2,100	7.0	9.1
Stone	945	19.3	0.3
Fuels	12,496,899	27.6	86.0
Structural Materials	230,603	30.2	13.3
Nonmetallics	157,238	35.7	8.6
Total	12,884,740	27.7	49.4

P Preliminary.

**Socio-Economic Indicators, 1980**

		Amount	Change From Previous Year	Proportion of Canada (per cent)
Population, Apr. 1	'000	2,068.8	3.2	8.7
Labour Force June, seas. adj.	'000	1,073	7.4	9.3
Employment June, seas. adj.	'000	1,030	6.6	9.7
Unemployment June, seas. adj.	'000	43	4.8	4.8
Employed in Mining & Milling, Feb.	'000	46.9	17.3	33.2
Average Weekly Wages, Mining and Milling Sept.	\$	518.26	11.9	112.7
Provincial Gross Domestic Product (1978)	\$	28.1 billion	14.3	11.9

**Uranium Exploration**

A total of 8.5 per cent of the uranium-rich Athabasca Basin occurs in Alberta, and although no major uranium discovery has yet been made in this part of the Basin, there has been, in recent years, an upsurge in activity in the area. At the beginning of the year, 24 uranium leases covering 85,215 hectares and 19 uranium prospecting leases covering 142,346 hectares were registered with the Alberta Department of Energy and Natural Resources. In 1978, the mining industry expended \$1.2 million on uranium exploration and 24 exploratory holes were drilled, totalling 8 592 meters.

**Recent Developments**

Union Oil Company of Canada Limited and Rescon Coal Holdings Ltd. have received permission from the Alberta Energy Resources Conservation Board to develop their \$400 million coal mine



near Hinton. The bituminous coal is to be sold for power generation in Pacific Rim and European markets. When in full production, an output of 2.75 million tonnes of saleable coal is expected from the open pit operation. A preliminary decision has been made to begin construction in 1981 with late 1983 being the date for start-up of production.

Sulphur production for the first five months of this year was down by 6.6%, however, sales were up by 17.1 per cent, with both domestic and foreign markets being strong. The price, reflecting the increased demand, was up from \$21.71 per tonne at the plant gate in May of last year to \$48.87 per tonne this year. Stockpiles which for years had been building when the price was low, are now being drawn down.

## REGIONAL PROFILES

## Quebec

Gold mining activity, particularly in northwestern Quebec, is continuing to increase in response to the elevated price of gold and seems certain to move gold up the commodity rank with regard to value of production. Gold was sixth in value of production for Quebec in 1979, behind iron ore, asbestos, stone, copper and cement. Former producers which were forced to close with the previous low price for gold are now being brought back into production and new orebodies are being delineated.

The cave-in at the Ferderber mine of Belmoral Mines Ltd. in late May marred the otherwise generally positive atmosphere of the gold mining industry. Eight people were killed in the disaster and provoking questions into the safety of the operation, but initial investigations into the safety procedures found them to have been adequate. Prior to the cave-in the mine was shipping ore at a rate of 9 100 tonnes per month.

Principal Mineral Production, 1979<sup>P</sup>

Commodity	Value (\$'000)	Change From 1978 (per cent)	Proportion of Canada
Iron Ore	639,881	89.6	33.9
Asbestos	532,932	21.1	83.1
Stone	193,144	-2.7	55.7
Copper	189,887	28.1	12.5
Cement	153,488	17.9	20.8
Gold	150,788	40.6	27.8
Zinc	79,521	8.6	7.2
Sand and Gravel	70,880	9.3	15.8
Titanium Oxide	66,595	-24.5	100.0
Iron Remelt	46,438	-46.0	100.0
Silver	23,077	49.9	5.1
Lime	16,037	-0.9	20.3
Columbium	15,492	8.9	100.0
Peat	11,389	-0.6	33.7
Molybdenum	7,965	29.8	2.4
Metals	1,157,969	45.0	14.5
Nonmetals	633,585	13.7	34.6
Structural Materials	456,296	3.7	26.3
Fuels	-	-	-
Total	2,247,850	29.3	8.6

<sup>P</sup> Preliminary.

**Socio-Economic Indicators, 1980**

		Amount	Change From Previous Year	Proportion of Canada (per cent)
Population, Apr. 1	'000	6,298.0	0.3	26.4
Labour Force June, seas. adj.	'000	2,965	3.6	25.7
Employment June, seas. adj.	'000	2,668	3.0	25.1
Unemployment June, seas. adj.	'000	297	9.2	32.9
Employed in Mining & Milling, Feb.	'000	22.5	10.3	15.9
Average Weekly Wages, Mining and Milling Jan.	\$	438.14	11.0	96.9
Provincial Gross Domestic Product (1978)	\$	56.2 billion	12.1	23.9

**Mine Developments**

Corporation Falconbridge Copper officially opened its Corbet mine near Noranda on June 12. Ore reserves are stated as 2 727 000 tonnes grading 3.01 per cent copper, 1.93 per cent zinc, 23.31 grams silver per tonne and 0.93 grams gold per tonne. After primary crushing, the ore is shipped to the Norbec mill for further treatment. Initial production is at a rate of about 550 tonnes per day.

Campbell Chibougamau Mines Ltd. poured the first brick from gold obtained from the Gwillim Lake deposit on May 24. The mine is located in the Chibougamau area and is about 25 kilometers by road west of the main mine. A cyanide circuit, entirely separate from the plant's concentrator, was added at the main mill to accommodate the Gwillim ore.



Adjacent to its Henderson mine, a new gold-copper orebody was outlined by Campbell Chibougamau. Development work, at a cost of \$6.3 million, is expected to be completed on the deposit by the middle of next year. The ore is of a sulphide type and will be milled in the regular flotation circuit of the milling plant, rather than in the separate gold cyanide plant completed to treat the ore from the Gwillim Lake mine.

Trucking and custom milling of ore from the Doyon (Silverstack) mine began on March 5, 1980. A custom milling contract was arranged between Silverstack Mines Ltd. and Les Mines Est-Malartic Ltée for the milling of 455 tonnes of ore per day. A contract was also signed with Noranda Mines Limited for the purchase of up to 273 000 tonnes of ore per annum as a flux in the smelter at Noranda.

Camflo Mines Limited and Malartic Hygrade Gold Mines Limited recently entered into an agreement whereby Camflo will develop the Malartic property. The gold ore structure dips into the Malartic property at the 2,000-foot level and will be developed from existing Camflo workings. Due to the close proximity of the mineralization to the workings, production could commence by the end of 1980 or early 1981.

### **Asbestos Takeover**

The provincially-owned National Asbestos Corp. has bought Bell Asbestos Mines, Ltd. for \$32.3 million. A further \$3.2 million was needed to acquire Atlas Turner Inc. of Montreal, an asbestos-cement products producer, and Turner Building Products of Surrey, British Columbia. The Bell mine located in the Thetford Mines area is adjacent to one of the mines of Asbestos Corporation Limited. While this acquisition will permit the National Asbestos Corp. to own and operate its first asbestos mine, the Quebec government has stated that its plans to acquire Asbestos Corporation have not changed.

## METALLIC MINERALS AND PRODUCTS

### Aluminum

Alcan Smelters and Chemicals Limited, have decided not to appeal the ruling of the Federal Fisheries Department concerning diverting water discharges of the Nechako River in British Columbia. The company will review its plans to build additional hydroelectric and smelting capacity in British Columbia and have appointed Mr. William Rich to the position of Vice President for British Columbia to discuss the issues with all concerned in the area.

The Company also announced plans to spend \$60 million to replace the present 50 000 tonne fluoride plant located at Jonquière, Québec, with a more modern 30 000 tonne plant adjacent to the 432 000 tonnes a year Arvida aluminum smelter.

In Japan, under a government program announced last year, Japanese smelters had to reduce their combined capacity from 1.64 million tonnes a year to 1.11 million tonnes. Now, because of rising fuel costs, larger stocks, increased imports and falling demand, two companies, Sumitomo Aluminium Smelting Company and Showa Aluminium Industries, have announced reductions of 36 000 tonnes a year and a third, Nippon Light Metal Company Ltd., NLM, is controlling its inventories with the possibility of future production reductions. Imported aluminum prices are considerably lower than domestically produced metal.

### Copper

Copper prices on the London Metal Exchange (LME) ranged from 87.88 cents (U.S.) to 98.61 cents (U.S.) a pound during August. The high price was recorded on August 14 and the low on August 28. The Canadian producer price for wirebars ranged from \$1.166 to \$1.201 a pound on August 1, and had dropped to \$1.106 a pound by the end of August.

At month end, copper stocks in COMEX and LME warehouses stood at 172 854 tonnes and 118 625 tonnes respectively, up from 164 861 tonnes and 110 225 tonnes at the end of July.

The U.S. copper strike continued through the month of August, with only two U.S. copper producers remaining in operation. The strikebound producers continued to ship copper to their customers from stocks. The operating producers were Duval Corporation, (a unit of Pennzoil Company) and Cyprus Mines Corporation (a unit of Standard Oil Company (Indiana)). Duval's contracts with its workers do not expire until September 30, while the majority of the workers of Cyprus Mines are not unionized.

Kennecott Minerals Company, the copper division of Kennecott Corporation resumed contract negotiations with the United Steelworkers of America on August 19, previously had been broken off on June 30, and reached a tentative agreement on major economic issues. Under the settlement, workers would reportedly receive a 39 per cent wage increase over three years, assuming an 11 per cent rate of inflation. However, other local and economic issues remain to be settled, and negotiations were continuing at the end of the month. The Anaconda Company and Phelps Dodge Corporation resumed talks with the union on August 26. Earlier in the month ASARCO Incorporated announced that talks tentatively scheduled with the union for August 20 had been cancelled by mutual agreement.

It is unlikely that the U.S. copper strike can be fully settled much before mid-September.

In Zambia, meetings were scheduled late in August between the two Zambian state-controlled copper-cobalt mining companies, Nchanga Consolidated Copper Mines Ltd. and Roan Consolidated Mines Ltd., and the Mine Workers' Union of Zambia. The union had threatened to strike if the two companies did not reply by September 3 to union proposals filed on May 31 for better conditions of service.

The Australian Federal Government has accepted "the intent" of an Industries Assistance Commission Report (issued in March 1980) recommending that controls be removed on the export of certain copper-bearing materials from Australia, but has put only one of the Commission's three main recommendations into effect. Existing export controls on refined copper and the export embargo on copper scrap had been introduced in 1964 to alleviate a domestic 'shortage' of copper caused, in part, by the temporary closure of the Mount Isa smelter. Export controls on ores and concentrates were put into effect in February 1973 when the Minister for Minerals and Energy extended export controls to all minerals.

The Commission recommended that export controls be removed on copper ores, concentrates and blister, also that exports of copper ingots, copper alloy ingots, rolling blocks, billets, cakes and ingot bars derived wholly or in part from copper or copper alloy scrap be permitted against a firm order quoting quantity and an internationally recognized specification supported by a certificate from a laboratory approved by the National Association of Testing Authorities; and that exports of copper scrap and copper alloy scrap currently embargoed, be permitted, subject to an export duty of 10 per cent.



The Government decided to retain provision for export control of copper ores, concentrates and blister, but stated that blanket approval for their export will be granted on request. That decision results in no major change, because export controls over these copper products had never been exercised since their introduction in 1964. The Government also decided to retain the current export embargo on copper and copper alloy scrap, rather than replacing it with an export duty of 10 per cent. However, the Government accepted the Commission's recommendation that export of copper ingots and shapes be permitted only against a firm order for an internationally recognized specification. This requirement is intended to prevent the embargo on scrap exports being undermined by conversion of scrap into copper scrap ingots.

Construction has been started on China's largest copper refinery in the province of Jiangxi, which will have an annual capacity of 90 000 tonnes of crude copper. The refinery, with equipment imported from Japan and Finland, is due to go into operation in 1982. It is part of the Jiangxi copper complex, now under construction.

### Gold

The monthly average for July 1980, of the afternoon fixing gold prices on the London Gold Market was \$627.15 (U.S.) (\$726.99 Cdn.) per ounce of gold, compared with an average price of \$644.71 (U.S.) (\$742.64 Cdn.) for July 1980.

Gold prices continued relatively soft throughout the month with no persistence in the peaks and some tendency to test the \$600 (U.S.) level, considered by some gold traders as a "key" price. The high for the month was \$645.25 (U.S.) per ounce at the afternoon fixing on August 21, and the low was \$605 (U.S.) per ounce at the afternoon fixing on August 12.

On August 5, Finance Minister Allan MacEachen authorized the sale of up to an additional one million ounces from Canada's gold reserves. At the end of June, 867,969 ounces of the first million ounces authorized for sale in December had been disposed of, netting \$526 (U.S.) million. Some of the gold has been sold to the Royal Canadian Mint for use in the bullion coin program. Reason given for the sales is that the value of the gold as a proportion of Canada's international reserves has gotten out of balance with the other assets in the Exchange Fund and should be reduced. This policy contrasts with that of Mexico which announced plans to increase the proportion of precious metals in its foreign exchange reserves.

The Camlaren Mine in the Northwest Territories, leased by Pamour Porcupine Mines, Limited, came into production on July 11. Dewatering and other preproduction expenditures amounted to \$900,000.

The strike at Giant Yellowknife Mines Limited continues with no indication that a settlement is near. Many of the best miners are said to have left Yellowknife to accept jobs in the booming British Columbia mining industry. These men could be difficult to replace.

### Lead

Producers in the United States, led by St. Joe Lead Co. and ASARCO raised the price of primary lead in the United States by 2 cents to 42 cents a pound. This followed two increases totalling 6 cents a pound during July.

Canadian producers also raised the price of metal sold in the United States to 42 cents (U.S.) a pound. The price of primary lead in the Canadian market was raised by 2.5 cents to 48 cents a pound.

### Magnesium

On August 13, an electrical substation of the Chromasco Limited magnesium plant at Haley, Ontario, short-circuited. It was reported that 350 employees would be laid off but that the company expected the plant would be fully operational by the middle of September. In the meantime, the magnesium processing plant was expected to be 60 per cent operational within one week at which time 250 employees would be rehired.

N L Industries, Inc. in the United States decided some time ago to sell its magnesium production facility near Utah's Great Salt Lake. On August 11, AMAX Inc. agreed in principle to acquire this plant and AMAX plans to increase capacity to about 41 000 tonnes from the current 25 000 tonnes.

### Platinum Group Metals

The two leading world platinum producers, Rustenburg Platinum Mines Ltd. and Impala Platinum Ltd. announced an increase in the producer price of platinum from \$420 (U.S.) per ounce to \$475 (U.S.) effective August 28. The same announcement included a decrease in the producer price of rhodium from \$800 (U.S.) an ounce to \$700 (U.S.) and an increase in the producer price of iridium from \$500 (U.S.) an ounce to \$600 (U.S.). The producer palladium price remains unchanged at \$225 (U.S.) an ounce.

The increase in producer prices are in part due to increases in equipment and labour costs during the year and to the need of producers to recoup currency-based losses caused by the dollar's decline against the rand. There is also a feeling among producers that industrial demand for platinum is stabilizing and signs that demand in the U.S. and Japan may soon improve. Demand in the United States has been dampened by the recession, which some analysts anticipate will soon end. The slump in the United States auto industry, a major user of platinum for catalytic converters to control exhaust emissions, has strongly affected demand for platinum in that country. In Japan increased demand from the auto industry has partially offset the slump in jewellery sales.

At the time of the announcement, London free market platinum prices were in a range of \$649 (U.S.) to \$654 (U.S.) an ounce. This is somewhat weaker than early July prices which reached \$721.50 (U.S.) an ounce on investment buying attributed by dealers to the weakness of the U.S. dollar and the strength of gold. However the free market price remains comfortably above the low of \$510 (U.S.) recorded in late March, following the decline in the prices of both gold and silver.

Credit Suisse estimates that world production of platinum in 1980 will show a surplus of between 70,000 and 345,000 ounces compared with a deficit of 240,000 ounces in 1979. Platinum on offer to the market may increase by 150,000 ounces to a total of 2.45 million ounces based on planned capacity increases in South Africa of some 100,000 ounces and a return to post-strike production levels by Inco Metals Company in Canada. Production in the U.S.S.R. is estimated at 300,000 ounces compared with 250,000 ounces in 1979.

### Silver

The silver market was stable during the month of August 1980. The opening and low price for the month, as quoted by Handy & Harman of New York, was \$15.57 (U.S.) per ounce. The high for the month of \$16.33 (U.S.) per ounce was recorded on August 21 and the closing price was \$16.15 (U.S.) per ounce.



The monthly average silver price for August 1980, as quoted by Handy & Harman of New York, was \$15.90 (U.S.) per ounce compared with \$16.06 (U.S.) per ounce in July and \$15.75 (U.S.) per ounce in June. The average silver price in Canadian dollars (Handy & Harman) for the month of August was \$592.96 per kilogram (\$18.44 per ounce) compared with \$593.98 per kilogram (\$18.48 per ounce) for July.

### Zinc

Late in the month, zinc producers raised the price of their primary zinc products and changed the pricing structure of the various grades of zinc metal. It appears that high grade and special high grade will become the base grade instead of prime western. This increase returns zinc prices to their levels of early May. The increases ranged from 1.75 cents (U.S.) to 2.25 cents a pound depending on the grade. The new prices in the United States are: high grade and special high grade, 37.25 cents a pound; prime western and controlled lead grades, 37.75 cents a pound and controlled lead grades with aluminum added, 38 cents a pound.

In Canada the new prices in Canadian funds are: high grade and special high grade, 43 cents a pound; prime western and controlled lead grades 43.5 cents, and controlled lead grade with aluminum added, 43.75 cents.

Texasgulf Inc. was one of the first companies to announce the price increases and its prices in Canada were originally one-half cent above the prices quoted above. However, after other Canadian producers announced their prices, Texasgulf lowered its Canadian prices to meet those of the other producers.

## INDUSTRIAL MINERALS AND PRODUCTS

### Asbestos

Two separate press releases August 6, 1980 revealed that:

Brinco Limited are in an advanced stage of negotiations with Olympia and York Developments Limited of Toronto which would result in Olympia and York becoming the

controlling shareholder of Brinco owning approximately 50.1 per cent of Brinco's voting share capital. The Canadian ownership of Brinco including publicly held shares would increase from its present level of around 29 per cent to about 74 per cent. Tinto Holdings Canada Limited would retain a 23 per cent interest in Brinco. Tinto Holdings Canada Limited is a wholly owned subsidiary of the Rio Tinto Zinc Corporation Limited of London, England.

Brinco Limited has reached an agreement in principle with certain major shareholders of Cassiar Asbestos Corporation Limited - namely Turner & Newall Limited and J.H. Industries (U.K.) Ltd., both of the United Kingdom, Newmont Mining Corporation and Raybestos-Manhattan, Inc., both of the U.S. and James Hardie Industries Limited of Australia, - whereby Brinco will obtain an option to acquire their shares (representing approximately 59 per cent of Cassiar) at a price of \$16.00 per share, equivalent to a total cost of approximately \$52 million.

This option will require Brinco to purchase their controlling shares and to make a general offer to all other shareholders of Cassiar for equivalent consideration upon Brinco receiving an opinion under the Foreign Investment Review Act that, as a result of (1) above Brinco will become an eligible Canadian controlled company.

### Potash

Canadian potash production for the fertilizer year that ended on June 30, 1980 was 7 063 114 tonnes (K<sub>2</sub>O) which is 10.6 per cent higher than last year. Capacity utilization was 88.8 per cent. Total sales were 6 846 356 tonnes, (up 3.3 per cent for the year) of which 5 032 436 tonnes were sold in Canada and U.S.A. and 1 813 920 on the offshore market. Inventories on June 30, 1980 were 1 040 529 tonnes, up 26.3 per cent from last year.

The first month of the current export year - July 1980 - was an all time record for offshore sales at 300 091 tonnes, up 102.7 per cent from the corresponding month last year (148 011 tonnes). It also indicated that the effective throughput capacity at the Vancouver terminals is much higher than originally anticipated by the National Harbours Board.

Canpotex Limited and China signed a three-year agreement effective January 1, 1981 for shipments of 650 000 tonnes of potash (KCl) per year, plus-minus 10 per cent. In addition there is a subsidiary agreement for an additional 100 000 tonnes per year at mutual convenience. This will place Canada as the principal supplier of China since their annual imports needs are estimated at between 700 000 and 900 000 tonnes per year. China's domestic production is very small.

## MINERAL FUELS AND PRODUCTS

### Crude Oil and Natural Gas

Mexico, through its national oil company Pemex, has agreed to supply Canada with 7 950 cubic metres per day (50,000 b/d) of crude oil by the end of this year. Petro-Canada, our national oil company, has agreed to receive 1 590 m<sup>3</sup>/d (10,000 b/d) commencing in October, 4 770 m<sup>3</sup>/d (30,000 b/d) in November and the final amount in December.

The original contract between the two governments had called for crude in the amount of 15 900 m<sup>3</sup>/d (100,000 b/d), but Mexico had to reconsider the volumes in light of other export contracts and probable future production.

Mexico generally prefers to export crude oil on a state-to-state basis. By 1982, Mexico expects to be able to produce up to 430 000 m<sup>3</sup>/d (2.7 million b/d) of crude and much of that has already been contracted for export. Petro-Canada has been assured that there is the possibility for increased sales.

The contract also includes economic and industrial cooperation between the two countries. This includes petroleum technology, equipment and services, mining and processing, transportation and telecommunication equipment and consulting services.



## Uranium

A federal environmental assessment panel has withheld support for the proposal by Eldorado Nuclear Limited to construct a \$100 million uranium refinery at Warman, Saskatchewan, some 23 km northwest of Saskatoon, because of uncertainties with respect to social impact. The panel suggested three options for consideration by Eldorado: namely, to provide further information with respect to the potential social impacts of the Warman proposals, with subsequent public review; to select one or more alternative sites in Saskatchewan for evaluation and public review; and to evaluate and review these sites in comparison or conjunction with the Warman site.

The provincial government will encourage Eldorado to consider alternative sites for a refinery in Saskatchewan.

Energy Resources of Australia (ERA), a consortium of Australian, West German and Japanese companies has signed long-term contracts, subject to government approval, with West Germany and Japan for the sale of some 25 156 tonnes U. The uranium will be supplied from ERA's Ranger operation in Australia's Northern Territory, over a 15-year period beginning in 1982. This important sale, worth the equivalent of \$2.5 billion (Cdn.), highlights Australia's role as a major supplier of uranium to world markets. The Australian government has announced that it will amend legislation to speed the transfer of its 50 per cent share in the Ranger project to ERA.

Queensland Mines Ltd. of Australia has signed a long-term contract to supply some 692 tonnes U in concentrates to Teollisuuden Voima Oy Industrins Kraft AB (TVO) of Finland. The contract, subject to approval by the Australian government, covers shipments of yellowcake produced at Queensland's Nabarlek operation for delivery between 1981 and 1989; the concentrates will be upgraded in the Soviet Union.

### INTERESTING INFORMATION FROM THE TRC

Kennecott Copper Corporation changed its name in April 1980 to Kennecott Corporation.

Zapata Granby Corporation changed its name to Zapata Canada Inc. on 15 May 1980.

S.E.R.E.M. Ltd. - S.E.R.E.M. Ltée is now written in a different way - SEREM LTD - SEREM LTEE as of Jan. 1980.

Falconbridge Copper Limited has taken on a french name only - no english - and is now known as Corporation Falconbridge Copper since April 1980.

Falconbridge Nickel Mines Limited now has two names - english and french - Falconbridge Nickel Mines Limited - Les Mines Falconbridge Nickel Limited since March 1980.

Gulf Canada Limited has a new Division known as Gulf Canada Products Company, a Division of Gulf Canada Limited - Compagnie les Produits Gulf, une Division de Gulf Canada Limitée since Jan. 1980.

Kaiser Petroleum Ltd., Kaiser Oil Ltd. and Canadian Ashland Exploration Ltd. amalgamated to form a new company under name of First-Tier Energy Ltd. as of 13 May 1980.

Canadian Homestead Oils Limited amalgamated into Inter- City Gas Corporation as of April 1980.

Polaris Pipe Lines amalgamated with Norcen Energy Resources Limited - Ressources Energetiques Norcen Limitée since Feb. 1980.





