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# The Canadian Mineral Industry Monthly Report

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Energy, Mines and Resources Canada

Minerals

**April**, 1978

Énergie, Mines et Ressources Canada

Minéraux

THE WAY !

#### **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.

Ce rapport a été rédigé par le Secteur de la Politique Minérale du Ministère de l'Energie, 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.

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# THE CANADIAN MINERAL INDUSTRY FOR APRIL

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

#### HIGHLIGHTS

- Canada's unadjusted index of Real Domestic Product was 125.2 in February 1978, an increase of 4.0 per cent from January 1978.
- 2. The February index of Mines, Quarries and Oil Wells was 110.0, an increase of 6.6 per cent from the previous month.
- 3. Copper prices on the London Metal Exchange (LME) drifted lower during April.
- 4. Announcements by the United States and Indian governments that they would sell part of their gold holdings forced a substantial decline in the gold price.
- 5. The Statistical Committee of the International Lead and Zinc Study Group convened in London in April.
- 6. The federal government announced approval in principle for development of a new coal mine and rehabilitation of an existing coal mine in Nova Scotia.
- 7. Panartic Oils Ltd. has made a significant gas discovery offshore from Melville Island's Sabine Peninsula.
- 8. The federal government has lifted the ban on uranium exploration activity in the Baker Lake area of the Northwest Territories.
- 9. A meeting of the UNCTAD Intergovernmental Group of Experts on Iron Ore (IGGE) was held in Geneva from April 24-28.

## ECONOMIC TRENDS

Table 1 shows Canada's unadjusted indexes of Real Domestic Product (RDP). The overall index in February 1978 was 125.2, an increase of 4.0 per cent from January 1978.

The February RDP index for mines, quarries and oil wells was 110.0, up 6.6 per cent from 103.2 in January. The metal mines index increased over the month by 6.9 per cent to 102.0. The February index for mineral fuels showed an increase of 7.0 per cent from January. Of the mineral fuels group, coal mines registered a substantial 29.5 per cent increase during the period. The non-metal mines index increased 4.9 per cent from January.

Table 2 compares volume of production in nineteen major Canadian minerals. Notable changes (January 1977 to February 1977) were recorded in copper (up 12.3 per cent), iron ore (down 28.3 per cent), nickel (down 28.0 per cent) and cement (up 29.7 per cent).

Tables 3 and 4 show capital and repair expenditures in mining, quarrying and oil wells for the period 1976-78 by region and by industry group.

	1977							Percentage	Cnanges	
		A	verage		A	verage	Jan 1978	Feb 1978	Feb 1978	1st 2 Months 1978
Industry or Industry Group	Jan	Feb N	lonths	Jan	reb i	Months	Jan 19//	Feb 19//		1977
Real Domestic Product							1.4	2.5	4.0	2.0
Drimary Industrias					107.2	122.0	4.7	2.5	4.0	2.0
Agriculture	37 7	35 5	36 6	41.4	43.5	42 4	9 8	22.5	5.1	16.0
Agriculture Forestry Fishing and Trapping Mines, Quarries and Oil Wells Metal Mines	102 7	120 8	111 7	91 3	1110	105 1	-11 1	-1.5	5.1 30.3 60.4 6.6 6.9 8.1 8.5 6.3 7.0 29.5	-5.9
Fishing and Transing	10 3	35 1	27 2	35 1	5; 3	45 7	81 9	60 4	60 4	68.0
Minos Ouerries and Oil Wells	112 2	117 1	115 1	103.2	1110	106 6	-9 8	-6 1	6 6	-7.4
Matal Wises	111 5	33111	113.1	05.4	102.0	08 7	-1111	-10.8	6 9	-12.6
Placer and Cold Ouerts Mines	75 7	07 1	21 /	53.4	71 0	72 1	_2 5	-14.0	9 1	-11.4
Placer and Gold Quartz Mines	100 3	110 3	112 6	107.3	11: 2	131 7	-1.0	-14.0	8 5	-1.6
Iron Mines Other Metal Mines Mineral Fuels Coal Mines	100.3	110.0	114 7	107.2	113.3	06 7	17 0	12.1	6.3	-15.4
Other Metal Mines	114.1	114.0	114.3	93.0	11116	114 7	-17.0	-13.0	7.0	-13.4
Mineral Fuels	110.1	120.5	110.3	110.0	113.0	200 5	10 3	-1.0	20 6	-3.0
	222.9	232.8	221.0	102.0	23).4	209.5	-18.1	1.5	29.5	-8.1
Crude Petroleum and Natural	107 4									
Gas	107.4	111.3	109.3	104.9	103.9	106.9	-2.3	-2.2 -9.3 -17.3	3.8	-2.2
Nonmetal Mines Asbestos Mines	132.1	138.6	135.3	119.8	125.7	122.7	-9.3	-9.3	4.9	
	111.6	115.1	113.3	80.6	95.2	87.9	-27.8	-17.3	18.1	-22.5
Secondary Industries										
Manufacturing Nondurable Manufacturing	115.9	121.3	118.6	116.1	123.9	120.0	0.2	2.1	6.7	1.2
Data alaum and Cast Dandusta										
Industries	137.6	139.0	138.3	135.7	133.6	134.6	-1.4	-3.9	-1.5	-2.6
Durable Manufacturing	119.8	124.2	122.0	119.0	125.6	122.8	-0.7	1.9	6.4	0.7
Primary Metal Industries	109.6	113.3	111.4	114.1	125.2	119.6.	4.1	10.5	9.7	7.4
Iron and Steel Mills	118.6	120.2	119.4	119.9	140.3	130.1	1.1	16.7	17.0	9.0
Steel Pipe and Tube Mills	122.1	134.6	128.3	131.1	152.7	141.9	7.4	13.4	15.5	10.6
Industries Durable Manufacturing Primary Metal Industries Iron and Steel Mills Steel Pipe and Tube Mills Iron Foundries Smelting and Refining Nonmetallic Mineral Products	125.5	140.5	133.0	115.3	133.7	124.5	-8.1	-4.9	16.0	-6.4
Smelting and Refining	91.3	95.3	93.3	102.9	99.7	101.3	12:7	4.6	-3.1	8.6
Nonmetallic Mineral Products										
Industries		100.0				100.2	2 0	7 9	16.6	6.0
Cement Manufacturers	57.5	64.6	61.0	53.0	63.6	58.3	-7.8	-1.5	20.0	-4.5
Ready-mix Concrete Manu-	-									
facturers	50.6	63.9	57.2	47.7	66.5	57.1			39.4	-0.3
Construction Industry	94.8	98.2	96.5	87.2	91.0	89.1	-8.0	-7.3	4.4	-7.7
Transportation, Storage, Com-										
munication	126.1	130.4	128.2	129.9	134.2	132.0	3.0	2.9	3.3	3.0
Electric Power, Gas and Water										
Utilities	177.1	168.7	172.9	190.4	188.6	189.5	7.5	11.8	-0.9	9.6
Trade	112.8	120.5	115.6	113.4	125.6	119.5	0.5	4.2	10.8	2.4
Finance, Insurance, Real Estate	131.7	132.3	132.0	136.3	137.3	136.8	3.5	3.8	0.7	3.6
Community, Business and Personal Service		131 8	130 6	135 2	135 7	135.9	4.4	3.7	1.1	4.1
Public Administration and De-	40000	131.0	230.0	40004	130.7	20000	3 . 3	3.1	4.4	4.1
fence	121.7	123 4	122 5	122 6	123 5	123.0	0.7	0.1	0.7	0.4
rence										0.4

TABLE 2

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

			1977			1978		Percentage Changes			
		January	February	Total 2 months	January	February	Total 2 months	February 78 February 77	February 78 January 78	1st 2 months 1978 1977	
[etals											
Copper Gold Iron ore	kg	71.8 4 283.3 2 578.2	65.9 4 249.5 949.1	137.7 8 532.8 3 527.3	56.8 4:28.1 1:870.4	63.8 4 081.0 1 341.8	120.6 8 209.1 3 212.2	- 3.2 - 4.0 +41.4	+12.3 - 1.1 -28.3	-12.4 - 3.8 - 8.9	
Lead Molybdenum Nickel	t	19.5 1 090.7 22.0	19.5 1 286.2 20.2	39.1 2 376.9 42.1	21.7 1 173.5 16.1	20.1 956.5 11.6	41.8 2 130.1 27.8	+ 3.1 -25.6 -42.6	- 7.4 -18.5 -28.0	+ ·6.9 -10.4 -34.0	
Silver Uranium (1) Zinc	t	97.0 301.2 73.0	107.5 270.9 77.2	204.5 572.1 150.1	100.7 466.2 72.9	102.2 489.5 62.0	202.9 955.7 134.9	- 4.9 +80.7 -19.7	+ 1.5 + 5.0 -15.0	- 0.8 +67.1 -10.1	
Tonmetals											
Asbestos Gypsum Potash K <sub>2</sub> O		110.5 320.9 454.6	109.1° 381.4 369.5	219.7 <sup>x</sup> 702.4 824.2	87.1 353.1 503.5	97.5 409.4 491.4	184.6 762.5 994.9	-10.6 + 7.3 +33.0	+11.9 +15.9 - 2.4	-16.0 + 8.6 +20.7	
Salt Cement	2000	641.9 356.1	656.1 406.7	1 298.1 762.7	574.7 319.6	694.3 414.6	1 369.0 734.3	+ 5.8 + 1.9	+ 2.9 +29.7	+ 5.5 - 3.7	
Clay products Lime	\$000	3,989.8	4,266.1	8,255.9 275.6	143.3	148.0	291.2	+ 5.5	+ 3.3	+ 5.7	
ruels											
Coal Natural gas	000 m <sup>3</sup>	2 404.4 8 456 374.2	2 642.8 7 568 187.9°	5 047.2°r 16 024 562.0°	2 490.8 8 919 298.0°	2 634.1 8 202 428.7	5 124.8 17 121 726.7	- 0.3 + 8.4	+ 5.8	+ 1.5 + 6.9	
Crude oil and equivalent	000 m <sup>3</sup>	6 978.7°	6 658.5°	13 637.3°	6 599.4 <sup>r</sup>	6 324.7	13 024.1	- 5.0	- 5.6	- 4.5	

<sup>(1)</sup> Tonnes uranium (1 tonne U = 1.299 9 short tons  $U_30_8$ ).

TABLE 3 Canada, Capital and Repair Expenditures - Mining, Quarrying and Oil Wells,  $1976-78^{1}$ 

			Machinery and	
		Construction	Equipment	Total
		(	millions of do	llars)
Atlantic Region	1976	105.3	173.5	278.8
	1977	87.5	179.5	267.0
	1978	104.3	218.7	323.0
Quebec	1976	328.8	341.4	670.2
	1977	229.5	442.9	672.4
	1978	138.2	282.5	420.7
Ontario	1976	238.9	297.2	536.1
	1977	240.4	287.0	527.4
	1978	195.6	257.0	452.6
Prairie Region	1976	1,602.0	745.5	2,347.5
	1977	2,085.2	811.5	2,896.7
	1978	2,279.5	615.4	2,894.9
British Columbia	1976	224.9	204.3	429.2
	1977	329.3	250.0	579.3
	1978	405.3	265.5	670.8
Northwest Territories				
and Yukon	1976	225.9	152.8	378.7
	1977	276.4	78.5	354.9
	1978	235.3	107.8	343.1
Canada	1976	2,725.8	1,914.7	4,640.5
	1977	3,248.3	2,049.4	5,297.7
	1978	3,358.2	1,746.9	5,105.1

<sup>&</sup>lt;sup>1</sup>1976 Actual, 1977 Preliminary actual, 1978 Intentions.

TABLE 4 Canada, Capital and Repair Expenditures - Mining, Quarrying and Oil Wells,  $1976-78^{1}$ 

	Cap	ital Expen	ditures	Repa	ir Expendi	tures	Capital and Repair		
	1976	1977	1978	1976	1977	1978	1976	1977	1978
				(mil	lions of d	ollars)			
Metal mines									
Gold	21.8	23.1	24.4	12.1	11.0	11.9	33.9	34.1	36.3
Iron	426.4	402.5	154.5	240.2	232.3	236.4	666.6	634.8	390.9
Copper-gold-silver	197.9	188.3	129.1	145.7	157.3	167.5	343.6	345.6	296.6
Silver-lead-zinc	77.8	78.7	73.2	47.2	46.4	47.3	125.0	125.1	120.5
Other metal mines	179.0	238.9	184.2	137.9	136.3	127.9	316.9	375.2	312.1
Total metal mines	902.9	931.5	565.4	583.1	583.3	591.0	1,486.0	1,514.8	1,156.4
Nonmetal mines									
Asbestos	94.9	99.4	119.2	75.7	88.9	94.1	170.6	188.3	213.3
Other nonmetal mines	281.0	368.3	364.9	170.5	194.2	204.3	451.5	562.5	569.2
Total nonmetal mines	375.9	467.7	484.1	246.2	283.1	298.4	622.1	750.8	782.5
Mineral fuels									
Petroleum and gas	2,162.1	2,636.1	2,723.9	370.3	396.0	442.3	2,532.4	3,032.1	3,166.2
TOTAL mining industry	3,440.9	4,035.3	3,773.4	1,199.6	1,262.4	1,331.7	4,640.5	5,297.7	5,105.1

<sup>&</sup>lt;sup>1</sup>1976 Actual, 1977 Preliminary actual, 1978 Intentions; <sup>2</sup> Includes coal mines, gypsum, salt, potash and miscellaneous nonmetal mines and quarrying.

#### FEDERAL-PROVINCIAL MINERAL AGREEMENTS

# Canada - Saskatchewan Mineral Development Agreement

The four-year Canada-Saskatchewan Subsidiary Agreement on Mineral Exploration and Development in Northern Saskatchewan expired on March 30, 1978. Under the agreement, Canada and Saskatchewan provided \$4,350,000 to fund a program to promote the development of the mineral industry in northern Saskatchewan. The federal-provincial cost sharing ratio was 50:50, and EMR contributed 50 per cent of the federal share. The other federal participant was the Department of Regional Economic Expansion.

The purpose of the program was to improve socio-economic conditions in northern Saskatchewan through development of the mineral industry by:

- further exploring mineral occurrences that are now submarginal with a view to finding additional ore or improving grades so that viable mining operations may be established;
- providing scientific and technical information that could lead to discoveries of new deposits of iron, uranium, lead, zinc and copper; and
- undertaking regional resource planning to assure that the maximum benefit accrues to the people of Saskatchewan in general and to northern residents in particular from all future mineral developments in the areas.

The agreement was comprised of six projects:

- The Regional Mineral Resource Planning Project-provided for studies of the effect of opportunities or problems in the mineral sector on people and the economy. It also included the preparation of a mineral deposit index and exploration data maps and the collection of uranium drill core.
- The La Ronge Wollaston Base Metals Exploration Project was an assessment of known mineral occurrences along the La Ronge Reindeer and Wollaston trends in northern Saskatchewan. The work done consisted mainly of geological mapping and geophysical and geochemical surveys.
- The Iron Ore Exploration Project-was the study of the potential of known iron ore deposit bodies in the Precambrian Shield of Saskatchewan.

- The Uranium Exploration Project-consisted of a systematic assessment of the uranium potential of northern Saskatchewan.
- The Industrial Minerals Exploration Project-was an evaluation of the industrial mineral potential of the sediments at the southern edge of the Precambrian Shield in Saskatchewan.

As a result of this agreement, the geological mapping of the Precambrian Shield south of 58°N was completed, new techniques and equipment were developed for underwater uranium exploration, various base metals and iron ore deposits were assessed, and radiometric and geochemical regional surveys were completed.

Although the impact of the agreement on the northern Saskatchewan mineral industry is presently being evaluated, a preliminary assessment indicates that the agreement did induce an increase in exploration on the part of the industry.

The final reports and maps for the various projects will be released during 1978.

The parties to this 1974-78 agreement have agreed to enter into a new two-year agreement, which will provide for the continuation of work initiated under the first one. It is expected that the new agreement will be signed in May 1978.

#### METALLIC MINERALS AND PRODUCTS

#### Aluminum

At the annual meeting held at Melbourne, Australia, Comalco Limited announced that it will be one of the participants in the building of a planned 145 000-tonne-a-year aluminum smelter at Gladstone, Queensland. Comalco's interest in the project will be 30 per cent. Discussions are being conducted with the Queensland government on electricity supply. Comalco also has an interest in the alumina plant of Queensland Alumina Limited at Gladstone.

Zaire and Swiss Aluminum Ltd. have entered into a cooperative agreement to build a 136 000 tonne-a-year aluminum smelter near the planned deep harbor at Banana, Zaire. Power will be obtained from the Inga II hydro power station, now under construction. Zaire will be responsible for harbor facilities and ancillary infrastructure. Swiss Aluminum will be responsible for the formation of an international consortium of aluminum producers and users as well as the necessary engineering and management services. Present plans call for the smelter to be in operation by the mid-1980s.

Billiton NV, a subsidiary of Royal Dutch Shell Group, will take a 20 per cent interest in a feasibility study in Alwest's alumina project in Western Australia. American, Japanese and Australian interests are reportedly the other partners. Cost of an alumina plant has been estimated at \$700 million.

The state owned Bharat Aluminum Co. (BALCO) of India and Tsvetmetpromexport of the U.S.S.R. have signed an agreement to evaluate the bauxite deposits in Andhra Pradesh State on India's east coast and to carry out a feasibility study on a 600 000 tonne-a-year alumina refinery and an aluminum smelter. It was reported that the U.S.S.R. would provide technology construction expertise and plant equipment and would take 300,000 tons of alumina per year, one-half of the planned capacity.

Also, Aluminum Pechiney, a subsidiary of Pechiney Ugine Kuhlmann S.A. has been asked to carry out a feasibility study on producing aluminum from the bauxite deposits of Orissa state on India's east coast. The initial plan calls for a 600 000-800 000 tonne-a-year alumina refinery and a 160 000 tonne-a-year aluminum smelter. The startup target date of the alumina plant is tentatively set for 1982. Shortage of power will have a bearing on the construction of aluminum smelters to treat the alumina produced at the two projects outlined above.

# Copper

Copper prices on the London Metal Exchange (LME) drifted lower during April. The LME cash price for wirebars opened the month at the equivalent of 59.3 (U.S.) cents a pound and closed the month at 57 (U.S.) cents a pound. Canadian producer prices were raised, effective April 5, to 73.125 cents a pound for wirebars and 72.5 cents a pound for cathode. United States producer prices were unchanged throughout the month at 64.625 and 64.00 U.S. cents a pound for wirebars and cathode respectively.

Warehouse stocks of copper continued to decline in April, LME stocks on April 28 were 550 300 tonnes compared with 575 225 tonnes one month earlier. COMEX stocks declined from 162 072 to 159 261 tonnes in the same period.

Canadian primary copper production up to the end of February, 1978 was 132 890 tonnes compared with 151 814 tonnes in the same period of 1977, reflecting the anticipated decrease in Canadian mine production.

Orchan Mines Limited announced that it may be necessary to suspend production for an indefinite period beginning July 3, 1978, due to depressed demand and prices for copper and zinc. It had previously been announced that a 30 per cent cutback in mine production will become effective in May.

Gibraltar Mines Ltd. is studying ways to reduce waste removal costs to avert mine closure. Tests are being conducted on the use of hydraulic mining instead of the usual scraper or truck and shovel operation.

Inco Metals Company announced early in April that further curtailment of its 1978 nickel production has become necessary because its' nickel inventory is still at abnormally high levels. A further two week 1978 summer shutdown is planned both at Sudbury and at the Manitoba division. This should further reduce the company's copper production which is co-produced with nickel.

The UNCTAD Working Group on Copper held its first session April 17 - 21, 1978. After a slow start the meeting moved rapidly towards a solid basis on which to continue its work at its second session, to be held May 22 - 26, 1978. Producing countries prepared a set of guiding principles upon which further work should be based while the United States tabled a detailed charter for the Standing Intergovernmental Copper Body (SICB). The relationship of the SICB with UNCTAD and its funding were, as anticipated, two areas of difficulty. The Working Group on Copper will report back to the Fourth Preparatory Meeting on Copper to be held by UNCTAD in the period June 19 - 23, 1978.

# Gold

The International Monetary Fund (IMF) held its twentieth gold auction on April 5, 1978 under the bid price method and awarded 524,800 troy ounces of fine gold to successful bidders at prices ranging from \$177.61 (U.S.) an ounce to \$180.26 (U.S.) an ounce and averaging \$177.92 (U.S.) an ounce. At the nineteenth gold auction 524,800 ounces of gold were awarded to successful bidders at a price ranging from \$181.13 (U.S.) an ounce to \$185.76 (U.S.) an ounce and averaging \$181.95 (U.S.) an ounce. The afternoon fixing price on the London Gold Market on April 5 was \$178.40. The gold price remained slightly above the bid price until about the middle of the month before starting a decline based on announced gold sales by the United States and India. Bids were submitted for 1,367,000 ounces of gold at the twentieth auction compared with 1,418,000 ounces at the nineteenth auction. Bidders were mainly European and North American banks and bullion dealers. The twentyfirst gold auction will be held on May 3, 1978 in which 525,000 ounces of gold will be offered for sale under the bid price method.

On April 19, 1978 the United States Treasury announced that it would auction 1,800,000 ounces of gold over a six month period. The first gold auction will be held on May 23, 1978 and 300,000 ounces will be offered for sale. Subsequent sales will take place on the third Tuesday of each month. As in the past United States' sales, the General Services Administration will handle the gold sales. The first auction will be under the common price or "Dutch Auction" method. Gold will be offered in the form of 400 ounce gold bars and the minimum bid will be 400 ounces of gold. A deposit of \$10 (U.S.) per ounce of gold is required with each bid. It is the intent not to sell to foreign governments or Central banks. According to a statement by the Treasury Department the sales would have the effect of reducing the United States trade deficit either by increasing exports of gold or by reducing the imports of gold. It should also help prop up the United States dollar.

On April 24, 1978 the Indian government announced that it would sell gold from its stocks beginning on May 3. Sales would be held every two weeks until July 26. The announcement did not disclose the amount of gold that would be sold over this period but informed sources indicated that India is expected to sell 70 tonnes (2.24 million ounces) of gold. Sales will be made only to licensed internal gold dealers. The object of the sales is to curb gold smuggling which has recently increased. Importation of gold into India has been prohibited and has resulted in a domestic gold price well above world market price. India's official reserves are about 222.1 tonnes (7.14 million ounces).

Effective April 19, 1978, Philippine primary and secondary gold producers must sell their entire output to the Central Bank. The producers will receive an advance payment up to 90 per cent of the

assayed value of the gold shipped based on the London Gold Market fixings. The Central banks will be the sole source of supply for the Philippine domestic industrial market. The gold subsidy plan now in existence to assist mines threatened with closure will be replaced with a gold stabilization fund financed with part of the proceeds from gold sales by producers.

Gold futures trading began on the Sydney, Australia exchange on April 19, 1978. The contract will be for 50 fine troy ounces and delivery months will be February, April, June, August, October and December. Trading will be conducted so that there will always be a spot market.

Announcements by the United States and Indian governments that they would sell part of their gold holdings, beginning in May, forced a substantial decline in the gold price. The high gold price of \$183.40 (U.S.) an ounce for April was recorded on April 3 and the low price of \$167.75 (U.S.) on April 25. The price appeared to have stabilized in a price range of \$170 (U.S.) towards the end of the month and closed at \$170.85 (U.S.) an ounce. The monthly average gold price for April 1978 of the afternoon fixing prices on the London Gold Market was \$175.28 (U.S.) (200.09 Cdn) an ounce compared with \$183.68 (U.S.) (206.75 Cdn) an ounce in March.

# Iron and Steel

It has been announced that Ivaco Industries Limited has purchased Lundy Steel Ltd. from G & H Steel Industries Limited. Lundy is a major manufacturer of steel fencing and is a large consumer of wire rod which Ivaco makes at its L'Original steel plant. Ivaco has also sold back to Rebars Limited its holdings in G & H which it purchased last January.

The Anti-Dumping Tribunal has announced that a preliminary finding of Dumping has been determined on imports of steel wire rope from Japan and South Korea having a diameter between  $1/8-1\ 3/4$  inches. A formal investigation by the Board will commence in May.

Several price increases for certain steel products ranging from 3 to 8 per cent have recently been announced by Canadian steel producers. These price increases have been approved by the Anti-Inflation Board and are basically related to increased costs of raw materials. Approximate mill prices now in effect for certain items per tonne of product are; hot rolled sheet \$320, up 6.5 per cent; cold rolled sheet \$365, up 6.5 per cent; large structurals \$295, up 6 per cent; carbon plate \$315, up 5 per cent and tinplate \$545, up 8 per cent.

In early April, United States steelmakers raised base prices for most steel products by \$6.06 (U.S.) a tonne. Some new product prices per tonne are carbon plate \$362 (U.S.), structural shapes \$347 (U.S.), cold rolled sheet \$401 (U.S.), and hot rolled sheet \$337 (U.S.). The recent coal labour contract settlement in the United States was the reason given for the price increase. The last general price increase occurred on February 1, 1978 and averaged about 5.5 per cent.

# Iron Ore

In early April the three major U.S. based merchant iron ore companies namely the Cleveland-Cliffs Iron Company, the Hanna Mining Company and Pickands Mather & Co. increased the price of iron ore pellets by 4 per cent to U.S.\$ 0.5768 per tonne iron unit. It was reported that the new price only partially recovers increased operating and transportation costs. The companies however, have announced that any future changes in rail, lake freight, dock handling and storage charges which would increase the delivery cost to rail of vessel, Lake Erie port, will be completely paid by the buyers.

All major issues including health, safety, sub-contracting and technological changes have been settled at all Quebec-Labrador iron ore mines. Negotiations are expected to start in early May on the issue of wages and benefits. In view of depressed markets for iron ore since 1974, the companies are asking their employees to accept a one year contract, with a freeze in wages and benefits. A series of strikes and lockouts began on February 28, following the expiring of the collective agreement, and at the end of April almost all the entire labour force of the region (11,000 iron ore workers) was on strike.

#### Lead

The lead market appears to have softened with the London Metal Exchange (LME) spot price hovering around the 26 cents-a-pound level for the last two months, a level substantially below the North American price. The price declined 1.3 cents a pound to 25.4 cents (U.S.) during the month. The prices in North America remained unchanged at 33 cents in the United States and 35.25 cents a pound in Canada. LME lead inventories declined to 61 900 tonnes, the lowest level since October 14, 1977.

The strike at the lead plant of Metallurgie Hoboken-Overpelt S.A. in Belgium ended after three weeks, on April 24th. However, the problems at the 125 000 tonne per year plant are not over as the mayor

of Hoboken has threatened to close the plant on June 1, if action to control pollution is not taken. Unacceptably high blood lead levels have been reported in children living near the plant.

Lead stocks held by producers in the United States rose 25 per cent in March to 18 853 tonnes and inventories are expected to increase further in April. Although stocks are still well below normal, some consumers are predicting that demand has fallen and that there is a strong chance of a downward price move in May.

# Mercury

About mid-March 1978, India's state-owned Minerals and Metals Trading Corporation opened tenders for the purchase of 2,000 flasks (of 76 pounds each) of mercury. Further details have not yet been made available. In April 1977, India bought 500 flasks of mercury from China and later in that year placed another order for an additional 300 flasks. Dealers are unlikely to be interested in India's 2,000-flask tender which will likely be met by producers such as Italy or China.

On March 15, and April 14, 1978, the United States General Services Administration (GSA) announced that no acceptable bids were received for its offerings of mercury. Each month GSA offers a maximum of 1,000 flasks of mercury for sale from its surplus stocks. These stocks do not require Congressional authorization prior to being sold and are exclusive of the 191,304 flasks of mercury contained in the U.S. strategic stockpile, none of which may be disposed of without Congressional approval.

#### Nickel

First quarter results have been released by Inco Limited and Falconbridge Nickel Mines Limited. For Inco, first quarter sales results, although encouraging at 92 million pounds, failed to make a dent in the level of stocks at 341 million pounds. Sales a year earlier in the first quarter were only 73 million pounds but earnings of 34.9 million (U.S.) in 1978 were about 13 per cent lower.

Falconbridge announced that first quarter results were not overly encouraging and that if sales did not pick up in the second quarter, further production curtailment measures would be necessary. The Canadian and Norwegian operations are presently operating at about 50 per cent of capacity. There was no decrease in Falconbridge's inventories during the first quarter.

A West German report states that the Feni ferronickel project in southern Yugoslavia will come on stream at a cost of \$187 million (U.S.) in 1979. The project is expected to reach full capacity in 1984 with an annual output of 19 000 tonnes of nickel contained in a 25 to 40 per cent nickel matte. Reserves are given as 110 million tonnes grading 1.09 per cent nickel and 32 per cent iron.

The general impression of the first quarter results is that production and demand are now approaching balance and although prices were moved up last month, most consumers were offered price protection for at least part of the second quarter. Demand still needs to improve in order to draw down inventories to more normal working levels.

Chase Econometrics released a nickel report which forecast a small improvement in price during 1978 to \$2.30 a pound. The inventories in the hands of producers were not expected to be significantly reduced until 1980. In another forecast, by Charter Consolidated Limited of the United Kingdom, only a small reduction in stocks of about 40 to 45 million pounds is foreseen in 1978. Producer stocks during the first quarter are estimated to be about 800 to 850 million pounds.

#### Silver

Discussions were scheduled to resume late in April between representatives of Equity Mining Corporation, Granby Mining Corporation, and Boliden Aktiebolag of Stockholm, Sweden, concerning the future of Equity's Sam Goosly silver-gold-copper property 65 kilometres south of Smithers, British Columbia. Cost of bringing the property into production has been estimated at \$60 million. Tentative production plans had called for an open pit mining operation to start late in 1979 with annual ore output of some 1.35 million tonnes. The latest negotiations will include possible minority equity participation in the project by both Granby and Boliden in return for financial commitments, further detailed engineering studies and a revised time schedule for bringing the project into production. Boliden is also interested in negotiating an agreement for the purchase of the future concentrate production from the Sam Goosly property for processing at its smelter at Ronnskar, Sweden. Reserves of ore mineable by open pit methods at the Equity Mining property have been estimated at 39.5 million tonnes, grading 86.5 grams of silver and 0.81 gram of gold a tonne, and 0.33 per cent copper.

With an estimated mine output of 1 400 000 kilograms (45,000,000 troy ounces) of silver in 1977, Mexico resumed a position it previously held for many years of being the world's largest mine producer of this precious metal. The Mexican government's Mining Development Commission has recently stated that it expects the country to continue increasing its

silver production over the next few years with output for 1980 projected to be 1 825 000 kilograms (58,700,000 ounces). Even if Mexico's 1980 production should be somewhat short of the projected figure it is likely that the country will continue to be the world's largest mine producer until 1980 and possibly for some years at least, thereafter. A significant portion of Mexico's silver output is derived from lead-zinc mines that operate primarily for the extraction of silver.

According to press reports, a contract for the construction of a new lead smelter, near the old mining town of Potosi in Bolivia has been awarded by the state owned Corporacian Minera de Bolivia (Comibol) and Empresa Nacional de Fundiciones (ENAF) to a consortium of west European companies. The new smelter is being designed to produce some 200 000 kilograms (6,430,000 ounces) of by-product silver a year. The plant is scheduled to be commissioned in 1980 at a total estimated cost of U.S. \$130 million.

## Zinc

The Statistical Committee of the International Lead and Zinc Study Group convened in London on April 17, 1978 to assess the current situation for lead and zinc in 1978. Prior forecasts made in September 1977 for the world supply and demand for zinc were all reduced but their net effect remained largely unchanged, that is, a modest reduction to world metal stocks and a continuing build-up of mine stocks, both of which are currently at high levels, were forecast for 1978. Specifically, metal stocks were forecast to decline by 104 000 tonnes and mine stocks were indicated to increase by about 300 000 tonnes. The statistical summary resulting from the Committee was as follows:

Western World	1976 Actual	1977 Actual (the	1978 Sept. 77 Forecousands of metri		1978 . 78 Forecast
Zinc Mine Production	4 554	4 866	5 147		4 916
Zinc Metal Production	4 135	4 267	4 319		4 198
Zinc Metal Consumption	4 213	4 106	4 341		4 226
Canada		1976	1977	1978	1978
Zinc Mine Production		1 158	1 301	1 232	1 179
Zinc Metal Production		472	495	479	458
Zinc Metal Consumption		119	124	129	129

Apart from the cutbacks in production shown above, Canada also advised the Statistical Committee that the zinc mine developments by Brunswick Mining and Smelting Corporation Limited, Mattagami Lake Mines Limited and Orchan Mines Limited which were scheduled to commence production in the period 1978-1980 had been deferred and were dormant pending the return of economic price levels. In addition, on April 3, 1978, Orchan announced that it might have to suspend production due to unprofitable operation and it gave formal notice that would permit temporary closure of the mine effective July 3, 1978.

Producer zinc prices remained unchanged during April 1978 at \$550 (U.S.) a tonne outside North America, \$639.33 (U.S.) a tonne in the United States, and \$683.42 a tonne in Canada, however, towards month-end there were some indications that the zinc prices outside North America might increase shortly. On April 24, 1978, Electrolytic Zinc Company of Australasia Ltd. increased its zinc price to \$600 (U.S.) a tonne followed on April 28, 1978, by BAAS Pty Ltd. which also moved to this level and Noranda Sales Corporation Ltd. which only increased its price to \$575 (U.S.) a tonne.

Zinc prices on the London Metal Exchange opened and closed the month of April at \$530.67 and \$527.97 (U.S.) a tonne respectively.

#### INDUSTRIAL MINERALS AND PRODUCTS

#### Asbestos

Approximately 1,500 asbestos workers employed in the Thetford Mines Region by Lake Asbestos of Quebec Ltd., Bell Asbestos Mines, Ltd. and Carey-Canadian Mines Ltd. went on strike on April 3, 1978. Lake Asbestos and Bell Asbestos Mines finalized agreements about April 12, however Carey-Canadian Mines' workers continued on strike. All contracts expired in October, 1977.

About 1,550 hourly paid employees of Asbestos Corporation Limited ratified a new labour agreement with the CNTU. The new 28.5 month agreement is retroactive to October, 1977 and calls for an average 6 per cent wage increase over the term of the contract. Contract clauses will allow the union to monitor the in-plant working environment and to authorize shutdowns if conditions deteriorate below a certain level.

Approximately 500 United Steelworkers continued on strike at Advocate Mines Ltd.'s Baie-Verte location in Newfoundland. Occupational health and safety are the primary issues that have not yet been settled since the strike started on February 13, 1978.

The clause by clause study of a total twenty-five clauses in Bill 70 to establish the Quebec Crown Corporation Société Nationale de l'Amiante continued in the National Assembly. The bill has now received second reading. Several outside organizations have been invited by the Assembly to submit presentations to a special committee that will examine in detail provisions of Bill 70.

The Quebec government expects that evaluation studies determining the value of Asbestos Corporation Limited will be completed in the near future and a Fall agreement will be negotiated with General Dynamics for control of Asbestos Corporation Limited.

#### MINERAL FUELS AND PRODUCTS

#### Coal

The federal government recently announced approval in principle for a five year \$265 million plan for development of a new mine and rehabilitation of an existing mine in Nova Scotia. Cabinet approval will permit an immediate start on engineering and feasibility studies for a mine at Donkin, N.S. which could cost up to \$100 million and produce up to two million tons of coal a year. The five year plan also includes approval in principle for rehabilitation of No. 26 Colliery at Glace Bay, N.S. and expenditures for improvements in coal transportation, shipping and storage facilities. Final approval for work on the new and existing mines is conditional upon the results of the feasibility studies being approved by Treasury Board under advice from the department of Energy, Mines and Resources.

McIntyre Mines Ltd. and its Japanese steel industry customers have agreed to a new one-year contract. The new contract calls for delivery of approximately 941,000 long tons of coal at \$58.50 per long ton FOB for the 1978-79 fiscal year. McIntyre also markets its coking coal to the Steel Company of Canada, Limited and to customers in the United States, South Korea and South America.

Phoenix Canada Oil Company Limited has announced the acquisition of coal exploration rights in the Northwest Territories. The exploration rights cover 389,000 acres in the Scented Grass Hills on Great Bear Lake in the western part of the Territories. Surface exploration and shallow drilling are planned in an area where seismic drilling during oil exploration indicated the presence of several coal seams.

The Alberta Cabinet has rejected a proposal for a surface mine near Nordegg, Alberta because it was located on land on which only underground mining is permitted. The proposal by Consolidated Coal Company for the surface mine was turned down under terms of Alberta's Coal Policy which divided Alberta into four land classification categories. The proposed surface mine was located about 150 kilometres west of Red Deer in Category 1 land, and surface mining is not permitted in this land category. The company now has the option of applying for reclassification of the property to allow for surface mining.

# Petroleum and Natural Gas

TransCanada PipeLines Limited has filed an application with the National Energy Board to extend its main gas transmission system from Montreal to Trois Rivieres and Becancour as the first phase of a two phase program to reach Quebec City and Sherbrooke.

The current plan is to build 167 miles, comprising 50 miles of 30-inch and 80 miles of 24-inch main line and 37 miles of laterals. The second phase would extend the system to Quebec City and to Sherbrooke to cover the eastern townships. The optimistic time scale is completion by fall of 1979 if a favorable decision can be obtained by late summer, 1978. Estimated cost of the first phase is \$88 million.

Panarctic Oils Ltd. has made a significant gas discovery off-shore from Melville Island's Sabine Peninsula, about 20 miles north of the Hecla field. The well, Panarctic et al AlEG Roche Point 0-43 flowed significant volumes of gas and condensate from a zone at the 9,000 foot level. The well is being drilled from an ice platform in 532 feet of water and will be completed at a total depth of 10,500 feet. Other zones will be tested and further evaluation is required before the commercial significance of the discovery can be determined.

On April 4, 1978 the House of Commons gave third and final reading to the Northern Pipeline Act. The Act will now go to the Senate where final approval is anticipated in the near future, clearing the way for the next steps in the \$10 billion project to move Alaska North Slope gas to American markets. Clearance of the Act will make it possible for Foothills Pipe Lines (Yukon) Ltd. to make financial arrangements and other necessary actions leading to a proposed construction start in 1981.

The first offshore natural gas well in northern Canada to be completed as a potential commercial producer has been linked with shore facilities through a unique subsea gathering system. The Drake F-76 well, drilled from a reinforced ice platform, 4,000 feet off the east of Sabine Peninsula, Melville Island, is the forerunner of a new underwater completion technology that will be required to tap Arctic offshore gas reserves. The F-76 well was drilled in Panarctic Oil Ltd.'s Drake field which has proven reserves in excess of 5 trillion cubic feet.

#### Uranium

The federal government has lifted the ban on uranium exploration activity in the Baker Lake area of the Northwest Territories. Landuse permits will be issued subject to restricted utilization of certain areas for specified periods. The restricted areas include land used for caribou migration, calving and post-calving assembly, and critical wild-fowl resting and molting areas. Land used for and adjacent to known caribou water crossings will be withdrawn from further disposition. Since caribou movements can change from year to year, there will be provision for redesignation of critical areas. B.P. Minerals Ltd., Urangesell-schaft Canada Ltd. and Western Mines Ltd. have been issued permits in the area, subject to the above restrictions.

A United States arbitrator has recently rendered a decision respecting the price of 1979 deliveries under Rio Algom Limited's contract with the Tennessee Valley Authority. The price of \$U.S. 118.09/kg U (\$U.S. 45.42/1b U<sub>3</sub>0<sub>8</sub>) has been approved by the Atomic Energy Control Board (A.E.C.B.).

Cenex Limited has announced that it has agreed to deliver 192 tonnes U to an undisclosed United States electric utility for a total price of \$U.S. 22 million or some \$U.S. 114/kg U (\$U.S. 44/1b U308), over the period February 1979 to February 1980. The contract also provides for delivery of an additional 92 tonnes U to March 1981, contingent on the development of additional reserves. The contract has been submitted to the A.E.C.B. for approval.

The Australian Government has introduced six bills into Parliament, the passage of which will commence the implementation of its policy to permit uranium developments in northern Australia. The bills would provide for environmental protection measures; the protection of Aboriginal land rights; the participation of the Australian Atomic Energy Commission in the Ranger project; the establishment of the Kakadu National Park; assurance that Northern Territory uranium mining provisions are legally enforceable; and the appointment of a supervising scientist, a coordinating committee, and an Alligator Rivers research institute. Bills providing for a uranium advisory council and a uranium

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marketing authority are still to be introduced. Deputy Prime Minister Doug Anthony has been quoted as saying that he hopes the legislation can be in place in time to permit the commencement of development of the Ranger deposits before November 1978.

South Africa's Hartebeestfontein gold/uranium producing operation plans to increase the capacity of its uranium treatment plant to treat slimes from old slime dams. The capacity of the plant will be increased from 250 000 tonnes to 295 000 tonnes of slimes/month, at a cost of some \$5.75 million.

Cleveland Cliffs Iron Co. has announced its intention to develop some 10 to 20 uranium mines over the next 10 to 20 year period in the southern Powder River Basin of Wyoming. The company plans to build a 2 720 tonnes of ore/day mill, with construction to begin in about  $3\frac{1}{2}$  years.

## SPECIAL ITEM

# UNCTAD INTERGOVERNMENTAL GROUP OF EXPERTS ON IRON ORE (IGGE)

Following a Preparatory Meeting on iron ore which was held in October 1977 (under the title of the UNCTAD Integrated Programme for Commodities), the first meeting of an Intergovernmental Group of Experts was held in Geneva from April 24-28, 1978, in order to consider matters remitted by the preparatory meeting. The group's terms of reference and items for consideration were as follows:

- (a) To collect and examine statistical and other information from governments and international organizations in order to arrive at greater transparency of the world iron ore market and to produce more reliable forecasts of demand and supply, taking into account the inter-relationship between the iron ore industry and the world economy generally and in particular the iron and steel industry.
- (b) To study the steps needed to provide more adequate and reliable information on the iron ore industry.
- (c) To identify and analyse the problems of the iron ore industry in particular in the areas of the factors influencing prices and production costs, and export earnings from iron ore.
- (d) To examine the results of existing and current studies on the question of transportation as they might apply to iron ore, and if necessary to ask appropriate bodies to bring up-to-date or to extend such studies.
- (e) To study the question of iron ore stocks, including their geographical distribution and factors influencing variations in their volume.
- (f) To examine the developments and the effects on the iron ore industry of the costs and benefits of the further processing of iron ore in the producing countries.
- (g) In the light of these examinations, the Intergovernmental Group of Experts should consider appropriate measures and techniques which may be required to solve identified problems and to achieve the objectives of resolution 93 (IV) in relation to iron ore and report to a Second Preparatory Meeting on Iron Ore.

The group invited governments to submit to the UNCTAD Secretariat available data for the period 1967-1977 on various aspects of their iron ore industries relevant to items (a), (b) and (e). In this respect, the Canadian delegation provided to the secretariat a copy of the questionnaire used to collect the data and the data compiled in published form covering Canada's iron ore industry. This data had been compiled quite independent of the UNCTAD initiative.

With respect to item (d) the UNCTAD Secretariat Shipping Division is currently preparing studies, which should be released before October 1978. The results of these studies will be examined at the second session scheduled for October 16-20, 1978.

The Group also invited governments to submit to the Secretariat, as soon as possible but not later than September 1978, papers on the study areas included under items (c) and (f) in which they have expertise, for circulation to the Group before its second session.

The major concern for iron ore producers is a deterioration of export earnings as a result of low prices and worldwide over-capacity. Shipping costs and insurance charges are also a concern to producers. Given a buyers market and a general lack of enthusiasm for a more formalized producer-consumer forum for raw materials within the UNCTAD context, consumers played a rather low-key role and the session yielded little progress towards resolving the problems of the world iron ore industry.

# **NEW PUBLICATIONS**

The following publications were prepared in the Mineral Policy Sector, Department of Energy, Mines and Resources and released for distribution in April.

Canadian Mineral Survey 1977; price \$1.00; available from EMR only.

Operators List 4, 1977, Coal Mines in Canada; price \$1.50.

MR 25: Canadian Minerals Yearbook 1975; price \$15.00.

Preprints, Canadian Minerals Yearbook 1976, Silicon, Ferrosilicon, Silicon Carbide and Fused Alumina; price 50¢ a copy.

The above publications are available from the Publishing Centre, Department of Supply and Services, Ottawa with the exception of the Canadian Mineral Survey 1977 which may be obtained directly from EMR.

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