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The Canadian Mineral Industry Monthly Report

August, 1978



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.

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.

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THE CANADIAN MINERAL INDUSTRY FOR AUGUST

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

HIGHLIGHTS

1. Canada's unadjusted index of Real Domestic Product was 134.8 in June, 1978, an increase of 1.2 per cent from May.
2. The June index of Mines, Quarries and Oil Wells was 109.3 an increase of 10.2 per cent from May.
3. The London Metal Exchange announced that it will commence dealings in primary aluminum on October 2.
4. The U.S. International Trade Commission reached its verdict during August on its 'Section 201' action on copper.
5. The price of gold varied considerably during August.
6. Supply problems continued to hold the spotlight in the lead industry during August.
7. The two major producers of platinum in the Republic of South Africa raised their prices for platinum.
8. Producer prices for zinc have bottomed out and are now moving upwards.
9. Clinton Creek mine ceased operations at the end of July.
10. The producer pricing system for copper in North America has undergone changes which amount to a virtual collapse of the system.

ECONOMIC TRENDS

Table 1 shows Canada's unadjusted indexes of Real Domestic Product in terms of 1971 = 100. The overall RDP index in June was 134.8, an increase of 1.2 per cent from May 1978.

The June RDP index for mines, quarries and oil wells was 109.3, up 10.2 per cent from 99.2 in May. The metal mines index increased 3.9 per cent over the month. The index for iron mines increased substantially from 23.8 in May to 36.6 in June but exhibited a 75.5 per cent decline when June 1978 was compared with June 1977. Increases of 17.4 per cent and 10.5 per cent were recorded for mineral fuels and non-metal mines respectively over the month.

The June index for primary metal industries was 136.3, 5.8 per cent above that of May, while non-metallic mineral product industries was 163.1, up 13.8 per cent.

Table 2 compares volume of production in major Canadian minerals. Output increased significantly in June compared with May for iron ore (29.8 per cent), silver (41.8 per cent), zinc (41.6 per cent) and gypsum (33.0 per cent). Uranium showed a 66.2 per cent decline over the month.

Table 3 shows industry selling price indexes for selected industries in terms of 1971 = 100.

Tables 4, 5, 6 and 7 show capital and repair expenditures for corporations in the mining, quarrying and oil wells industry for 1977 and 1978. Table 4 presents these expenditures by region and Table 5 shows a breakdown of capital expenditures and repair expenditure for the mining industries. Tables 6 and 7 compare the data for mining industries and mineral manufacturing industries.

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

Industry or Industry Group	1977			1978			Percentage Changes			
	May	June	Average	May	June	Average	May 1978	June 1978	June 1978	1st 6
			1st 6			1st 6	May 1977	June 1977	May 1978	Months
		Months	Months			Months				1978
										1977
Real Domestic Product	130.4	130.8	126.3	133.2	134.8	129.7	2.1	3.1	1.2	2.7
Primary Industries										
Agriculture	128.8	7.4	63.3	126.2	6.7	67.8	-2.0	-9.5	-94.7	7.1
Forestry	90.2	115.9	110.2	97.5	114.3	109.7	8.1	-1.4	17.2	-0.5
Fishing and Trapping	66.5	126.9	56.7	111.0	135.1	69.0	66.9	6.5	21.7	21.8
mines, Quarries and Oil wells	118.2	120.5	115.3	99.2	109.3	105.2	-16.1	-9.3	10.2	-8.7
Metal Mines	119.7	118.7	111.4	84.3	87.6	92.2	-29.6	-26.2	3.9	-17.2
Placer and Gold Quartz Mines	71.9	72.3	76.6	68.2	71.8	71.9	-5.1	-0.7	5.3	-6.1
Iron Mines	140.6	149.6	127.7	23.8	36.6	61.3	-83.1	-75.5	53.8	-52.0
Other Metal Mines	116.9	113.4	109.1	100.0	101.0	100.9	-14.5	-10.9	1.0	-7.5
Mineral Fuels	110.6	116.6	115.2	102.5	120.3	111.1	-7.3	3.2	17.4	-3.5
Coal Mines	215.2	218.1	221.9	217.5	230.9	218.3	1.1	5.9	6.2	-1.6
Crude Petroleum and Natural Gas	102.0	108.3	106.4	93.1	111.2	102.4	-8.7	2.7	19.4	-3.8
Nonmetal Mines	130.9	130.8	131.4	121.4	134.1	124.3	-7.3	2.5	10.5	-5.4
Asbestos Mines	104.3	108.4	108.6	90.0	106.5	90.4	-13.7	-1.8	18.3	-16.7
Secondary Industries										
Manufacturing	125.6	134.7	125.7	133.3	141.6	131.8	6.1	5.1	6.2	4.8
Nondurable Manufacturing	122.0	129.4	122.2	129.5	137.1	129.5	6.1	6.0	5.9	6.0
Petroleum and Coal Products Industries	130.7	141.8	134.6	116.4	136.2	128.4	-10.9	-3.9	17.0	-4.5
Durable Manufacturing	129.2	140.1	129.3	137.0	146.1	134.2	6.0	4.3	6.6	3.8
Primary Metal Industries	118.6	125.7	118.5	128.8	136.3	129.0	8.6	8.4	5.8	8.9
Iron and Steel Mills	126.0	135.4	126.2	142.1	154.1	140.2	12.8	13.8	8.4	11.2
Steel Pipe and Tube Mills	109.7	124.8	118.3	125.5	139.1	140.1	14.4	11.5	10.8	18.5
Iron Foundries	120.5	123.5	127.3	109.9	115.1	125.0	-8.8	-6.8	4.7	-1.8
Smelting and Refining	107.4	110.2	104.0	109.5	111.2	109.1	2.0	0.9	1.6	5.0
Nonmetallic Mineral Products Industries	147.8	157.3	122.6	143.3	163.1	125.6	-3.0	3.7	13.8	2.4
Cement Manufacturers	154.4	170.8	107.8	145.4	165.6	105.6	-5.8	-3.0	13.9	-2.0
Ready-mix Concrete Manufacturers	165.4	187.0	112.1	141.2	171.0	102.1	-14.6	-8.6	21.1	-8.9
Construction Industry	118.1	133.2	110.0	111.4	127.8	104.8	-5.7	-4.1	14.7	-4.8
Transportation, Storage, Communication	138.5	142.6	134.5	140.0	146.2	138.0	1.1	2.5	4.4	2.6
Electric Power, Gas and Water Utilities	131.6	127.4	152.5	134.6	131.2	164.2	2.3	3.0	-2.5	7.7
Trade	140.4	141.7	129.8	145.6	150.9	134.2	3.7	6.5	3.6	3.4
Finance, Insurance, Real Estate	143.4	143.3	141.1	146.9	149.1	146.6	2.4	4.0	1.5	3.9
Community, Business and Personal Service	130.1	131.3	129.7	133.9	135.4	133.6	2.9	3.1	1.1	3.0
Public Administration and Defence	124.1	128.5	123.7	126.7	131.2	124.8	2.1	2.1	3.6	0.9

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

	1977			1978			Percentage Changes		
	May	June	Total 6 months	May	June	Total 6 months	<u>June 78</u> <u>June 77</u>	<u>June 78</u> <u>May 78</u>	1st 6 months <u>1978</u> <u>1977</u>
Metals									
Copper	79.8	69.5	407.5	69.0 ^r	66.7	381.8	- 4.0	- 3.3	- 6.3
Gold	5 064.1	4 375.0	26 891.1	4 286.8 ^r	4 387.0	25 941.8	+ 0.3	+ 2.3	- 3.5
Iron ore	5 615.2	6 029.1	20 159.8	1 645.7	2 135.7	10 034.0	-64.6	+29.8	-50.2
Lead	24.5	28.1	145.7	24.2 ^r	27.9	152.9	- 0.7	+15.3	+ 4.9
Molybdenum	1 310.1	1 169.3	7 632.9	1 084.5	1 065.2	6 638.6	- 8.9	- 1.8	-13.0
Nickel	19.6	21.1 ^r	122.3 ^r	14.6	15.2	96.6	-28.0	+ 4.1	-21.0
Silver (1)	118.6	108.4	699.8	87.1 ^r	123.5	655.4	+13.9	+41.8	- 6.3
Uranium	518.4	799.3	2 728.1	1 061.5	359.3	3 608.4	-55.1	-66.2	+32.3
Zinc	83.3	100.6	525.5	65.7 ^r	93.0	481.3	- 7.6	+41.6	- 8.4
Nonmetals									
Asbestos	117.7	130.0	731.3	105.2	126.9	636.9	- 2.4	+20.6	-12.9
Gypsum	644.3	735.0	3 009.0	662.1	880.5	3 387.5	+19.8	+33.0	+12.6
Potash K ₂ O	473.6	443.7	2 926.5	541.2	615.5	3 293.9	+38.7	+13.7	+12.6
Salt	312.8	439.4	2 910.4	486.1	500.1	3 157.6	+13.8	+ 2.9	+ 8.5
Cement	1 040.3	1 199.9	4 308.5	1 031.3	1 233.9	4 216.7	+ 2.8	+19.7	- 2.1
Clay products \$000	9,920.5	10,240.4	42,972.2	10,413.8	11,409.1	41,035.6	+11.4	+ 9.6	- 4.5
Lime	165.1	168.5	910.9	178.4	173.2	974.7	+ 2.8	- 2.9	+ 7.0
Fuels									
Coal	2 504.0	2 305.5 ^r	14 933.1 ^r	2 477.0	2 236.9	14 952.3	- 3.0	- 9.7	+ 0.1
Natural gas 000 m ³	7 501 473.4	6 764 215.9 ^r	46 324 271.2 ^r	6 851 403.4 ^r	6 324 710.0	45 151 075.7	- 6.5	- 7.7	- 2.5
Crude oil and equivalent 000 m ³	6 805.6	7 299.1 ^r	41 336.7 ^r	6 238.7 ^r	7 817.6	39 864.6	+ 7.1	+25.3	- 3.6

(1) Tonnes uranium (1 tonne U = 1.299 9 short tons U₃O₈).

^r Revised.

TABLE 3

Industry Selling Price Indexes, Selected Industries¹, 1971 = 100

	1977	Average		Percentage changes		
		1st 6 months		1976	1977	1st 6 months
		1977	1978	1975	1976	1978/1977
Primary metal industries	190.5	187.8	201.5	5.7	12.1	7.3
Iron and steel mills	187.9	184.7	197.8	9.4	6.0	7.1
Steel pipe and tube mills	197.8	190.1	211.8	9.9	10.4	11.4
Iron foundries	189.6	186.6	197.9	7.5	4.8	6.1
Smelting and refining	200.7	199.7	210.1	0.4	21.6	5.2
Aluminum rolling, casting and extruding	173.6	166.4	206.1	7.2	11.4	23.9
Copper rolling, casting and extruding	144.5	148.1	146.8	5.2	4.4	-0.9
Metal rolling, casting and extruding nes.	216.3	209.4	231.2	5.4	19.5	10.4
Nonmetallic mineral products industries	177.6	175.7	190.6	10.8	8.8	8.5
Clay products manufacturers ²	182.8	179.7	193.1	8.0	7.8	7.5
Cement manufacturers	186.7	185.1	204.4	17.0	9.1	10.4
Lime manufacturers	228.7	223.4	241.8	12.4	11.9	8.2
Gypsum products manufacturers	155.6	151.8	157.9	4.8	5.6	4.0
Concrete products manufacturers	173.7	171.2	186.8	6.3	7.6	9.1

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

TABLE 4

Canada, Capital and Repair Expenditures - Mining Quarrying and Oil Wells, 1977-78¹

		Construction	Machinery and Equipment	Total
millions of dollars				
Atlantic Region	1977	87.5	179.5	267.0
	1978	104.3	218.7	323.0
	1978 ^r	95.9	199.7	295.6
Quebec	1977	229.5	442.9	672.4
	1978	138.2	282.5	420.7
	1978 ^r	137.6	286.6	424.2
Ontario	1977	240.4	287.0	527.4
	1978	195.6	257.0	452.6
	1978 ^r	171.5	268.0	439.5
Prairie Region	1977	2,085.2	811.5	2,896.7
	1978	2,279.5	615.4	2,894.9
	1978 ^r	2,318.4	637.6	2,956.0
British Columbia	1977	329.3	250.0	579.3
	1978	405.3	265.5	670.8
	1978 ^r	427.6	270.7	698.3
Northwest Territories and Yukon	1977	276.4	78.5	354.9
	1978	235.3	107.8	343.1
	1978 ^r	228.9	111.6	340.5
Canada	1977	3,248.3	2,049.4	5,297.7
	1978	3,358.2	1,746.9	5,105.1
	1978 ^r	3,379.9	1,774.2	5,154.1

¹ 1977 Preliminary actual, 1978 Original intentions, 1978^r Revised intentions.

TABLE 5

Canada, Capital and Repair Expenditures - Mining Quarrying and Oil Wells, 1977-78¹

	Capital Expenditures			Repair Expenditures			Capital and Repair		
	1977	1978	1978 ^r	1977	1978	1978 ^r	1977	1978	1978 ^r
millions of dollars									
Metal mines									
Iron	402.5	154.5	125.6	232.3	236.4	236.4	634.8	390.9	362.0
Gold	23.1	24.4	24.8	11.0	11.9	11.9	34.1	36.3	36.7
Copper-gold-silver	188.3	129.1	119.1	157.3	167.5	167.5	345.6	296.6	286.6
Silver-lead-zinc	78.7	73.2	74.2	46.4	47.3	47.3	125.1	120.5	121.5
Other metal mines	238.9	184.2	209.2	136.3	127.9	127.9	375.2	312.1	337.1
Total metal mines	931.5	565.4	552.9	583.3	591.0	591.0	1,514.8	1,156.4	1,143.9
Nonmetal mines									
Asbestos	99.4	119.2	123.2	88.9	94.1	94.1	188.3	213.3	217.3
Other nonmetal mines ²	368.3	364.9	396.8	194.2	204.3	204.3	562.5	569.2	601.1
Total nonmetal mines	467.7	484.1	520.0	283.1	298.4	298.4	750.8	782.5	818.4
Mineral fuels									
Petroleum and gas	2,636.1	2,723.9	2,749.5	396.0	442.3	442.3	3,032.1	3,166.2	3,191.8
Total mining industry	4,035.3	3,773.4	3,822.4	1,262.4	1,331.7	1,331.7	5,297.7	5,105.1	5,154.1

¹ 1977 Preliminary actual, 1978 Original intentions, 1978^r Revised intentions. ² Includes coal mines, gypsum, salt, potash and miscellaneous nonmetal mines and quarrying.

TABLE 6

Canada, Capital and Repair Expenditures - Mining Quarrying and Oil Wells, 1977-1978¹

	1977	1978	1978 ^F
	(millions of dollars)		
Metal mines			
Capital	931.5	565.4	552.9
Repair	583.3	591.0	591.0
Capital and repair	1,514.8	1,156.4	1,143.9
Nonmetal mines			
Capital	467.7	484.1	520.0
Repair	283.1	298.4	298.4
Capital and repair	750.8	782.5	818.4
Mineral fuels ²			
Capital	2,636.1	2,723.9	2,749.5
Repair	396.0	442.3	442.3
Capital and repair	3,032.1	3,166.2	3,191.8
Total mining			
Capital	4,035.3	3,773.4	3,822.4
Repair	1,262.4	1,331.7	1,331.7
Capital and repair	5,297.7	5,105.1	5,154.1
All industries			
Capital	46,490.8	48,983.4	49,950.5
Repair	12,564.2	13,662.7	13,662.7
Capital and repair	59,055.0	62,646.1	63,613.2

¹ 1977 Preliminary actual, 1978 Original intentions, 1978^F Revised intentions. ² Petroleum and gas.

TABLE 7

Canada, Capital and Repair Expenditures in the Mineral Manufacturing Industries, 1977-78¹

	1977	1978	1978 ^r
	millions of dollars		
Primary and metal industries ²			
Capital	717.7	774.3	756.4
Repair	687.8	773.9	773.9
Capital and repair	1,405.5	1,548.2	1,530.3
Nonmetallic Mineral products industries			
Capital	284.5	255.4	283.8
Repair	163.9	185.8	185.8
Capital and repair	448.4	441.2	469.6
Petroleum and coal products industries			
Capital	377.4	293.4	324.6
Repair	167.7	185.4	185.4
Capital and repair	545.1	478.8	510.0
Total mineral manufacturing industries			
Capital	1,379.6	1,323.1	1,364.8
Repair	1,019.4	1,145.1	1,145.1
Capital and repair	2,399.0	2,468.2	2,509.9

¹ 1977 Preliminary actual, 1978 Original intentions, 1978^r Revised intentions. ² Includes smelting and refining.

TAXATION AND LEGISLATION AFFECTING
MINING AND ALLIED INDUSTRIES IN CANADA

Provincial

Alberta

The Mineral Rights Assessment Regulations under the *Freehold Mineral Taxation Act* have been amended by adding definitions of "operating cost allowance" and "operating year" and a schedule which specifies the costs to be included in determining the operating cost allowance and what costs may not be included.

METALLIC MINERALS AND PRODUCTS

Aluminum

On August 22, 1978, the London Metal Exchange announced that it will commence dealings in primary aluminum on October 2, 1978, for delivery on January 2, 1979. Aluminum delivered under the contract will be in 25 tonne lots of primary aluminum, minimum 99.50 per cent purity with a maximum iron content 0.40 per cent and a maximum silicon content 0.30 per cent delivered in ingot form. The contracts will be quoted in British pounds sterling. All aluminum delivered must be of the brands listed in the LME approved list of brands. The introduction of aluminum into the daily sessions of the LME will result in small time alterations to the present time pattern for trading in the other metals.

The announcement also stated that it is not LME's intent to disrupt the producer price structure but to provide an additional service in the existing aluminum free market.

The consensus among the producers and merchant traders is that traditional functions performed by the LME are not necessary in the case of aluminum. The major world producers of aluminum have developed on a vertical line structure and the control of physical supplies is done within the producers own organization. The producers not vertically integrated, mainly in the Middle East and Far East and without marketing arms could benefit from this market. The merchant aluminum price is subject to price fluctuations but according to the merchant traders this accurately reflects the changes in the supply/demand ratio. Some traders fear the possibility of exaggerated price movements through action by speculators on the LME.

The LME trading of aluminum should not affect the Canadian aluminum industry. Both Canadian producers are vertically integrated.

Copper

Copper prices moved higher during August. London Metal Exchange (LME) prices for copper wirebars opened the month at 62.6 (U.S.) cents a pound, and rose to 64.8 (U.S.) cents a pound by month-end. The confused pricing picture in North America continued in August, with The Anaconda Company joining Cities Services Canada Ltd. and Kennecott Copper Corporation in COMEX-related pricing on August 1. Other U.S. producers and the Canadian producers who sell in North America retained the producer-quoted price independent of COMEX but initiated forward pricing options. For example, customers of INCO Metals Company will be able, as of September 1, to price part or all of their purchases at the average of Inco's daily prices for the month before the contractual month of shipment. These changes all amount to a virtual collapse of the North American producer pricing system as it has operated over a period of many years. At month-end producer prices for copper wirebars in the U.S. and Canada were, 0.67625-0.68625 \$U.S. and 0.76625 \$ Can. a pound respectively.

LME warehouse stocks continued to decline in August. By August 25, they amounted to 449 000 tonnes compared with 477 950 tonnes at the end of July. COMEX stocks fell marginally to 180,946 short tons from 180,991 short tons at the end of July.

The U.S. International Trade Commission reached its verdict during August on its 'Section 201' action on copper. It ruled that increasing imports of refined copper were a cause of injury to U.S. producers and recommended a quota be established. This finding and the recommended remedy are covered in detail in a 'special item' later in this report.

Señator Gary Hart, chairman of the U.S. Senate Armed Services Subcommittee on stockpiles, announced on August 3 that he would defer indefinitely any action on either of two pending stockpiling bills. U.S. industry has been lobbying for passage of legislation which would result in early additions to the U.S. General Services Administration stockpile. At present there are only 18 000 tonnes of copper in the stockpile, compared with a strategic goal established by the Executive Branch of 1.1 million tonnes.

Minero Peru Comercial declared *force majeure* on August shipments of copper wirebars, lead, zinc and silver from the La Oroya metallurgical complex in Peru. This action resulted from a strike of miners and metalworkers. La Oroya produces 10 000 to 15 000 tonnes of copper wirebars annually.

Copper production by Inco Limited in the first six months of 1978 was 159 million pounds compared with 173 million pounds in the same period of 1977. This drop in copper production is a side effect of the reduction in Inco's nickel production.

Falconbridge Nickel Mines Limited reported that one of the two new roaster-electric furnace lines was operated satisfactorily during the first week of July, 1978. Expenditures on the company's Sudbury

smelter environmental improvement project was more than 90 per cent complete at the end of June. The three-year labour collective agreement expired in August.

Recent deep level diamond drilling at the Norita mine of Orchan Mines Limited has indicated a significant enlargement of the new A ore zone. Official drill-indicated reserves of the new zone are 1 200 000 tonnes with an average grade of 5-6 per cent zinc and 2-6 per cent copper, with significant gold and silver values.

Texasgulf Inc. announced that during the second quarter of 1978, the new fourth concentrator circuit was completed and began to operate. At the number 2 mine, installation of galvanized steel had reached 975 m. By 1981, the Kidd Creek mine will have increased copper output capacity by 50 per cent. The copper smelter and refinery construction is still proceeding slowly and may be completed late in 1981.

Texasgulf has completed the feasibility study on the Cerro Colorado mine in Panama and is now planning to visit with potential lending agencies, customers and equipment suppliers to present an update on the project.

Gold

The price of gold varied considerably during August because of economic problems, mainly those related to the unfavorable trade balance of the United States. Gold reached an all-time high of \$215.75 (U.S.) an ounce on August 16, 1978 and declined gradually from this high until August 23, 1978 when it dropped sharply to under \$200 (U.S.) an ounce on the announcement by the U.S. Treasurer that it was to sell 750,000 ounces of gold each month over a four month period beginning in November 1978. The gold price recovered and closed for the month at \$208.70 (U.S.) an ounce. The monthly average gold price for August 1978 of the afternoon fixings on the London Gold Market was \$206.30 (U.S.) (\$235.26 Canadian) an ounce gold compared with \$188.73 (U.S.) (\$212.22 Canadian) an ounce for July 1978.

The International Monetary Fund (IMF) held its twenty-fourth gold auction on August 2, 1978 under the bid price method and awarded 470,000 fine ounces of gold to successful bidders at prices ranging from \$203.03 (U.S.) an ounce to \$205.11 (U.S.) an ounce and averaging \$203.28 (U.S.) an ounce. The average price at the twenty-third gold auction was \$183.97 (U.S.) an ounce. The afternoon fixing price on the London Gold Market on August 2, 1978 was \$203.25 (U.S.) an ounce. Competitive bidding was strong and bids were received for a total of 1,467,600 ounces of gold. Awards were made to twenty successful bidders, mainly European and American banks and bullion dealers.

In addition 70,000 ounces of gold were awarded to the member countries of Cyprus and the Philippines who submitted bids on a non-

competitive basis. The awards were made at the average auction price of \$203.28 (U.S.) an ounce of gold.

On August 15, 1978, the Treasury Department of the United States held its fourth gold auction and awarded 300,000 ounces of gold to twelve successful bidders at prices ranging from \$213.23 (U.S.) an ounce to \$216.17 (U.S.) an ounce and averaging \$215.53 (U.S.) an ounce of gold. The Dresdnar Bank of Frankfurt was awarded 224,000 ounces, about 75 per cent of the total gold auctioned. Some of Switzerland banks were other large recipients of gold.

The United States Treasury announced that following its present gold auctions program ending in October 750,000 ounces of gold will be auctioned each month over a four month period beginning in November 1978.

Iron and Steel

Workers at The Algoma Steel Corporation, Limited of Sault Ste. Marie, members of the United Steelworkers of America, Local 2251, voted to accept a revised 3-year contract thus ending a ten day strike which began on August 1, 1978. The agreement was similar to the package accepted by the Steelworkers at The Steel Company of Canada, Limited in Hamilton on July 31, 1978, but rejected at the time by the Algoma workers. However, the workers accepted a new contract after slight modifications were made to vacation and pension provisions.

Sydney Steel Corporation of Sydney, Nova Scotia has announced a five year contract with Ivaco Industries Limited of Marieville, Quebec to ship some 680 000 tonnes of billets beginning in October 1978. Annual shipments will vary between 100 000 and 135 000 tonnes. Total value of the contract is estimated at \$140 million.

Ivaco Industries has announced that a subsidiary, Sivaco Wire and Nail Co., is planning to start operations of a third steel nail, welded wire mesh and wire products plant in the United States. The plant, to be located in Quincy, Florida, will open in early 1979 and have an annual capacity of 27 000 tonnes. Sivaco's other two plants in the United States are located at Buffalo, New York and Warrington, Virginia.

Price increases have been announced by The Algoma Steel Corporation Limited, The Steel Company of Canada, Limited (Stelco) and Dominion Foundries and Steel, Limited for certain steel mill products. Effective September 3, 1978, Algoma will increase prices for wide flange beams, bearing piles and other structural shapes by an average of 8.2 per cent to about \$310 per tonne. Algoma and Stelco will increase steel plate prices by some 6.2 per cent to about \$340 a tonne on September 10, 1978. Stelco will raise prices for sucker rods, used for oil and gas drilling, by 5.9 per cent to about \$1,085 a tonne on September 5, 1978. Effective October 1, 1978, Stelco will increase tin plate by 3.8 per cent to about

\$560 a tonne and black plate by 4.2 per cent to \$460 a tonne. Dofasco will match Stelco's tin plate increase on October 2, 1978. Also on October 2, Dofasco will raise prices of hot rolled and cold rolled steel sheet and strip by an average of 4 per cent.

The three largest steel producing companies in Canada, Dominion Foundries and Steel, Limited (Dofasco), The Algoma Steel Corporation Limited, (Algoma), and The Steel Company of Canada, Limited (Stelco) have announced results of operations for the first six months of 1978. A comparison with 1977 experience is as follows:

January - June

	<u>Crude Steel Production</u>			<u>Steel Product Shipments</u>			<u>Sales</u>		
	1977	1978	% Change	1977	1978	% Change	1977	1978	% Change
	(000 tons)			(000 tons)			(million \$)		
Stelco	2,899	2,834	- 2.2	2,050	2,340	+14.2	715.8	900.1	+25.7
Dofasco	1,685	1,641	- 2.6	1,344	1,389	+ 3.4	455.4	514.1	+12.9
Algoma	1,486	1,744	+17.4	1,116	1,269	+13.7	334.6	420.6	+25.7

The Japan Iron and Steel Federation has recently forecast Japanese crude steel production for the 1978 fiscal year ending March 31, 1979 at some 100-104 million tonnes. This compares to actual production of 100.6 million tonnes in fiscal 1977 and the all-time production high of 120 million tonnes in 1973. Domestic demand for steel is expected to increase by some 2 to 5 million tonnes to 63.5-66.5 million tonnes while exports are expected to fall by some 2 million tonnes from 1977 exports of 39.5 million tonnes. Capacity utilization continues to remain poor in Japan as total installed steelmaking capacity is approximately 160 million tonnes.

Lead

Supply matters continued to hold the spotlight in the lead industry during August. The AMAX-Homestake strike at the Boss, Missouri mine-mill-smelter complex was resolved by mid-month and production should return to normal by the end of September. This positive development was balanced by the news that an industrial dispute at Tara Mines Ltd's Navan, Ireland operation forced the company to suspend production on August 3. The dispute with millworkers is over alleged slow progress in negotiations on a pay-bonus scheme. With this strike, and the continuation of the Tynagh strike of Irish Base Metals Ltd. (recorded in the July Report), the greater portion of the Irish lead mining capacity is now shut down.

In Japan, the Obuto mine of Mitsubishi Metal Corporation was closed at the end of August because metal grades had declined to the point where mining was no longer economically viable at present prices. The grade of ore was 2.18 per cent lead, 4.55 per cent zinc, and 0.38 per cent copper and ore production had been at the rate of 12 000 tonnes a month.

Labour strife in Peru has forced Minero Peru to declare a partial *force majeure* on August shipments of refined lead, zinc, copper and silver from its La Oroya smelter and refinery. The mining regions were placed under military control during the month but the mining and smelting operations have not yet returned to normal. The dispute apparently arises over pay increases and the re-instatement of dismissed colleagues.

The increasing tightness of supply of both metal and concentrates prompted producers in North America to increase their prices during the month. Producers in the United States increased prices 2 cents to 33 cents a pound while Canadian producers selling in the U.S. market joined them at that level and then, because of the exchange rate difference, boosted prices 1.75 cents domestically to 36.5 cents a pound. The price on the London Metal Exchange (LME) for prompt delivery was generally buoyant during the month due to strong physical demand. The spot price in U.S. funds increased from 27.2 cents a pound on August 1, to 29.9 cents on August 31. At the same time, LME stocks continued their decline, dropping 1 675 tonnes to 47 175 tonnes on August 25. Stocks on the LME have declined 29.5 per cent since the beginning of the year.

Nickel

The operations of both Inco Limited and Falconbridge Nickel Mines Limited were re-started during August after extended shutdowns, which were taken as an inventory and production control measure. Inco mine workers have returned without a contract, an unprecedented move by the union (United Steelworkers of America). The union will vote on an Inco offer on Friday, September 1.

An agreement was recently signed in the Hague to develop the Cerro Matosa nickel deposit in Colombia. The mine will be developed as a joint venture between Shell Oil Company (35 per cent), The Hanna Mining Company (20 per cent) and the Colombian government in the form of the Instituto de Fomento Industrial (45 per cent). The project is scheduled for the early 1980's and will have a capacity of about 20 000 tonnes a year of contained nickel.

Price discounting appears to be gathering momentum and a full scale price war amongst producers appears likely as the large steel companies are now beginning to shop around for fourth quarter supply contracts. The tone of the marketplace was set early in the month when it was announced that the Indian government had awarded supply contracts

to Inco and Brandeis, Goldschmidt & Co. Inc. for 400 tonnes of Class I products plus the possibility of a further 1 100 tonnes at \$1.82 and \$1.80 (U.S.) a pound respectively. Rumours of nickel being offered at \$1.70 a pound for Class I (cathodes, electrolytic and briquette) do not seem so incredible in the light of the above transaction.

The price also received a blow when Terni Sp. A., a steel company belonging to the Italian state-owned group, signed a swap contract with the U.S.S.R. of laminated steel products for Soviet nickel. Size of the transaction is unknown.

The London Metal Exchange (LME) has announced an aluminum contract scheduled to commence on October 2 of this year and with this announcement, the feeling is that nickel will not be far behind. The committee of the LME looking into a nickel contract has not reported yet but December or January is being suggested by certain quarters as a likely starting date.

The outlook for the rest of 1978 is for demand to remain slightly ahead of year-ago levels but for prices to remain weak.

Platinum

In the latter part of August 1978 the two major producers of platinum in the Republic of South Africa raised the price of platinum to \$250 (U.S.) an ounce of platinum from \$240 (U.S.) an ounce, bringing the producer price more in line with the dealer price. The problems that were responsible for the wide variance in the price of gold for the month of August also applied to platinum. The nearby dealer prices for platinum on the New York Mercantile Exchange for August varied from a low of \$259.40 (U.S.) an ounce, recorded on August 31, to a high of \$279.50 (U.S.) an ounce.

Silicium Metal

Au début de 1978, quatre producteurs américains de ferroalliages ont présenté une pétition devant le ministère du Trésor des États-Unis dans laquelle ils alléguaient que le producteur canadien de silicium métal, soit Electro-métallurgie S.K.W. Canada ltée de Bécancour au Québec, faisait du dumping sur le marché américain du silicium métal. Cette pétition mentionnait que SKW vendait son silicium métal aux États-Unis à 42 pour cent en dessous de sa valeur loyale et marchande (fair value). Au cours du mois de février, après étude de la pétition présentée par les quatre producteurs américains, le ministère du Trésor des États-Unis a jugé qu'il y avait suffisamment d'évidences pour continuer les recherches afin de savoir s'il y a eu ou non dumping. Le 29 août 1978, le Trésor américain a publié un avis de résolution préliminaire antidumping contre le silicium métal provenant du Canada. Selon eux, la marge de dumping

aurait été de 3.6 pour cent. Les parties intéressées ont trente jours pour présenter leurs arguments après quoi les procédures nécessaires seront prises, i.e. que le cas sera référé devant "l'International Tariff Commission" qui devra prendre une décision concernant les préjudices causés à l'industrie américaine.

Zinc

Growing concerns over surplus world supplies of zinc mine production were reduced in August due to the halt in production within Ireland and Peru caused by labour strikes. Tara Mines Ltd. in Ireland closed the 210 000 tonne-a-year Navan lead-zinc mine on August 4 after a week's production had been lost due to an unofficial strike by millworkers. Also on August 4, Peru's miners declared a nationwide strike in protest over the dismissal of 320 union leaders. The government of Peru has reacted by declaring a state of emergency in the country's five main mining regions and the military has occupied these regions to maintain order. Last year, Peru was the western world's second largest zinc mine producer after Canada producing 478 000 tonnes of zinc; however, production is currently at a standstill and the country's only zinc refinery at La Orroya has declared partial *force majeure* due to the lack of feed.

In Japan, MITI has announced a subsidization scheme to assist the ninety-odd financially depressed non-ferrous domestic mines. The scheme, if approved by the Diet in October, 1978 will establish a 15 billion yen stabilization fund to lend to the depressed firms at little or no interest to pay off their debts. In addition, government financial aid, tax relief, and other assistance will be made available to rebuild the depressed industry.

Producer prices for zinc have bottomed out and are now moving upwards. Prices were increased in August, when producers in Europe moved their price for zinc from \$550 (U.S.) a tonne to \$625 (U.S.) a tonne, prompted by the sagging U.S. dollar. The Metal Bulletin in London accordingly established the Gob Producer basis quotations for zinc outside North America at \$600 (U.S.) a tonne on August 9 and \$625 (U.S.) a tonne on August 11. In the United States, the split producer's price for prime western zinc was consolidated at \$683.43 (U.S.) a tonne in early August and was increased to \$716.50 (U.S.) a tonne by mid-month. Canada's producers have adopted these prices both outside North America and in the United States. Domestically, Canadian zinc producers increased zinc prices during the month but are split at \$788.15, \$793.66, and \$815.70 a tonne. The previous price for all producers was \$749.56 a tonne. Prices on the London Metal Exchange opened the month at \$593.15 (U.S.) a tonne and closed the month at \$620.31 (U.S.) a tonne.

INDUSTRIAL MINERALS AND PRODUCTS

Asbestos

Cassiar Asbestos Corporation Limited's Clinton Creek mine in the Yukon Territories, ceased at the end of July 1978. Production started in 1967 and since this time the mine produced about 900 000 tonnes of asbestos fibre valued at approximately \$300 million.

Closure of the Clinton mine, resulting from the exhaustion of ore reserves, together with Cassiar's decision to use Stewart, British Columbia as a port instead of Skagway, Alaska, will have a severe financial effect on White Pass and Yukon Route Transportation. Also, when all shut-down and mine rehabilitation activity stops at Clinton Creek (with a population about 500 and situated 70 kilometers west of Dawson City), there will be regional economic effects. Cassiar, Canada Employment and Immigration, the Canadian Mine Workers Union and the Territorial government have been working together on retraining and upgrading programs for many employees that will not be relocated.

Bentonite

Avonlea Minerals Industries Ltd. began processing bentonite in May, 1978 and is expected to be operating at full capacity of 54 000 tonnes a year in 1979. The processing plant, located in Wilcox, Saskatchewan, 32 kilometers south of Regina, treats material transported a distance of 14 kilometers after mining from a shallow pit.

Major markets are for iron-ore pelletizing in Québec and Ontario and for foundry use in Saskatchewan. The drilling mud market is also being evaluated.

Portland Cement

An antidumping investigation by the United States Treasury Department has determined that imports of portland hydraulic cement from Canada are being sold at less than fair value in the United States. The case has been referred to the United States International Trade Commission for a determination of whether said sales have caused or are likely to cause injury to an industry in the United States. A finding is likely by the end of September, 1978.

Ironically cement is in short supply in western United States where demand, which has been escalating since mid 1977, has exceeded U.S. regional plant capacity. New capacity in western U.S. is not likely before 1980-81. Because of this situation the Bamberton, British Columbia plant of Inland Cement Industries Limited, which was scheduled to close in December 1978, will be kept operative for at least another 18 months.

Inland's new million tonne a year Tilbury Island plant, currently in the run-in stage, has 5-year contracts with both Kaiser Cement & Gypsum Co. of Oakland, California and Lone Star Industries, Inc., of Greenwich, Connecticut to supply 200 000 tonnes and 250 000 tonnes a year respectively. Inland is also negotiating with Lehigh Portland Cement Company to supply some of its requirements in Washington state.

Genstar Limited announced August 25 that it has purchased about 20 per cent of the outstanding common stock of the Flintkote Holdings Limited of Stanford, Connecticut after having filed with the U.S. Securities and Exchange Commission on August 24 its intention to acquire a "significant minority interest" in Flintkote.

It was Flintkote Holdings Limited that filed information leading to the antidumping investigation and another Genstar-owned company, Miron Company Ltd., is one of those charged.

Potash

Aid-financed fertilizer shipments from Canada between April 1, 1977 and March 31, 1978 totalled 664 300 tonnes and went to the Indian sub-continent; namely, India, Bangladesh, Pakistan and Sri Lanka. In value, c.&f. equivalent, these shipments were worth Can. \$63,500,000 (f.o.b. value totalled Can. \$45,740,000).

The majority of fertilizer exported was in the form of bulk or bagged potash, primarily to India, but with smaller quantities to Bangladesh and Sri Lanka. Under this aid-financed programme, India also received a 25 000 tonnes delivery of bulk sulphur whilst Pakistan took nearly 50 000 tonnes of DAP (diammonium phosphate).

Main Canadian Aid-Financed Fertilizer Shipments

Destination	Funding	'000 tonnes	Product (bulk)	c.&f. equivalent
India	loan	508.5	potash	85.00
India	loan	25.0	sulphur	66.52
Bangladesh	grant	37.5	potash	119.15
Pakistan	loan	49.5	DAP	201.61
Sri Lanka	loan	43.8	potash	95.18

MINERAL FUELS AND PRODUCTS

Coal

Esso Minerals Canada, a corporate division of Imperial Oil Limited has applied to the Alberta Energy Resources Conservation Board (ERCB) for a development permit and operating licence for a new coal mine. The coal would be used to produce large quantities of steam for reducing the viscosity of the Coal Lake heavy oil deposits. If coal is used rather than oil, each tonne of coal will free up approximately 2.5 barrels of oil. The proposed mine, 175 kilometres northwest of Edmonton, would initially produce 2.3 million tonnes. The coal would be transported approximately 300 kilometres from the Judy Creek site northwest of Edmonton to the Cold Lake site near the Alberta-Saskatchewan border. A rail and slurry pipeline alternative are being studied for transporting the coal.

Canada's newest coal mine, the Luscar Sterco Ltd. Coal Valley mine recently initiated its first shipments. These initial shipments were destined for overseas markets as part of a 15-year contract for 450 000 tonnes per year of thermal coal for a West German utility. The Coal Valley mine also has a long term contract to supply Ontario Hydro with approximately 1.8 million tonnes of coal annually.

After lengthy negotiations three Canadian coking coal exporters recently reached agreement with Japanese steelmakers on contract renewals. Kaiser Resources Ltd. and Fording Coal Limited settled on a new price of \$59.60 per long ton f.o.b, while Cardinal River Coals Ltd. is to receive \$58.80 per long ton f.o.b. The new prices represent an increase for all three operators and are to cover the 1978-79 and 1979-80 contract years. In addition all contracts include a provision for no price escalation during the life of the contract.

The Alberta Energy Resources Conservation Board (ERCB) has recently given conditional approval for a new thermal coal mine. The mine would feed an Alberta Power Limited thermal plant at Battle Creek, Alberta. The mine to be located 130 kilometres southeast of Edmonton, is scheduled to replace the Forestburg Diplomat mine. The new mine will supply approximately two million tonnes per year to the Battle Creek plant for 30 years.

Petroleum and Natural Gas

A group of oil and gas producing companies announced on August 18 that they are proceeding with plans for securing additional markets for surplus Alberta gas. For this purpose a new Company (Progas Limited) has been incorporated to act as the vehicle for entering into long-term gas purchase arrangements with gas producers in Alberta and

marketing arrangements for the sale of gas committed by these producers. The group of sponsoring companies presently involved are Amoco Canada Petroleum Company Ltd., Canadian Homestead Oils Limited, Canadian Superior Oil Ltd., Chevron Standard Limited, Dome Petroleum Limited, Hudson's Bay Oil and Gas Company Limited, Norcen Energy Resources Limited, Numac Oil & Gas Ltd., PanCanadian Petroleum Limited and Shell Canada Resources Limited. The group has expressed concern about the large volumes of shut-in natural gas in Alberta. They recognize that while Canadian markets are not available at the present time, such gas in the longer term may be required to satisfy future Canadian needs. The Progas proposal will also involve entering into long-term arrangements with the Alberta Gas Trunk Line Company Limited and TransCanada PipeLines Limited for the transportation of such gas. Presumably unused capacity that may exist in these systems and any new facilities which may be required will be utilized to transport the gas to Canadian markets in the long term and to the United States export market in the short term, thereby assuring the continuous long-term utilization of the facilities. It is contemplated that sales to the United States mid-west will approximate 500 MMcf/d for a five year period, declining thereafter over a three or four year period as the Canadian market grows and requires the full volumes on a long term basis. The Progas proposal will, of course, be subject to approval by both Alberta and federal regulatory agencies.

On August 1, Federal Energy Minister the Honourable Alastair Gillespie and Alberta's Minister of Energy and Natural Resources, the Honourable Donald R. Getty, announced a new Federal-Alberta gas pricing agreement which provides that the ratio of natural gas to crude oil prices in central Canada will not be increased from the present 85 per cent. The agreement, effective for one year from August 1, 1978, results in a new wholesale price of natural gas at Toronto of \$2 per million BTU's. The 85 per cent ratio of gas to crude oil prices will be maintained for the term of the agreement.

The first step toward construction of the next multi-billion dollar oil sands extraction plant has been taken by a consortium of Canadian and foreign controlled petroleum industry interests led by Shell Canada Resources Limited of Calgary. Shell announced the formation of the Alsands Project Group to negotiate terms and conditions for a 125,000 barrels a day synthetic oil production facility in the Athabasca oil sands region of northeastern Alberta with the provincial and federal governments and regulatory agencies. According to initial estimates, the plant and its auxiliary facilities would cost up to \$4 billion expressed in current monetary values and would be ready by the mid-1980's. The Alsand Group expects to begin negotiations with the two levels of government almost immediately on royalties and taxation, while an application to build and operate the plant will go to the Alberta Energy Resources Conservation Board later this year. The formation of the Alsands Project group does not mean a commitment to go ahead with the plant. Interest in the Alsands Group is shared by Shell Canada, 25 per cent; Shell Explorer Limited of Houston, 20 per cent; Amoco Canada Petroleum Company Ltd. of Calgary, 10 per cent; Chevron Standard Limited of Calgary, 8 per cent; Dome Petroleum Limited of Calgary, 4 per cent; Hudson's Bay Oil and Gas Company Limited of Calgary, 8 per cent; Pacific Petroleum, Limited of Calgary, 9 per cent; Gulf Canada Limited of Toronto, 8 per cent; and Petrofina Canada Ltd. of Montreal, 8 per cent.

Uranium

Saskatchewan Mining Development Corporation (SMDC) has exercised its option to buy 50 per cent of the one-third interest in the Key Lake deposits held by Eldor Resources Limited, a wholly-owned subsidiary of Eldorado Nuclear Limited. It will be recalled that in May 1978 SMDC purchased Inexco Mining Company (Canada) Ltd.'s one-third interest in these deposits for resale to Eldorado, retaining the option to buy back half of Eldorado's interest. SMDC now holds one-half interest in the deposits, Uranerz Exploration and Mining Limited, one-third and Eldorado the remainder; Uranerz is the operator.

Earth Sciences Incorporated (ESI) has announced that it has signed a 20-year, \$85 million sales agreement with Yankee Atomic Electric and Vermont Yankee Nuclear Power to supply 770 tonnes U from its planned uranium production facility near Medicine Hat, Alberta. ESI's Canadian subsidiary, ESI Resources Limited, plans to recover some 38.5 tonnes U/year as a byproduct of phosphoric acid produced by Western Co-operative Fertilizers Limited (WCFL) under an agreement signed two years ago between ESI and WCFL. The \$10 million ESI facility will be built beside the WCFL plant and production should proceed about 15 months after regulatory approval is received.

Western Mining Corporation Limited of Australia reportedly will proceed with the development of its Yeelirrie deposit in Western Australia, together with two partners, Esso Exploration and Production (Australia) and Urangesellschaft mbH and Co. KG of West Germany. Following government approval of the project, the company intends to proceed with a three year \$24.4 million pilot program at a test plant to be built near Kalgoorlie; Western Mining will retain 75 per cent equity, while Esso and Urangesellschaft will gain 15 per cent and 10 per cent respectively; through a firm pre-payment arrangement, Esso will gain an additional 35 per cent share in production. It is estimated that Yeelirrie could be in production at the rate of some 2 200 tonnes uranium a year by 1984. After about ten years of operation, production would decline to some 840 tonnes U/year, due to declining grades. Vanadium pentoxide (V_2O_5) will be produced as a byproduct at the rate of 1 016 V_2O_5 a year, falling to some 390 tonnes V_2O_5 a year after 10 years.

Kerr-McGee Corporation of the United States, has modified its Sequoyah, Oklahoma uranium hexafluoride (UF_6) plant to receive uranium concentrates in slurry form. Some two thirds of its 8 850 tonne U/year throughput can now be handled in the form of a slurry. Kerr-McGee is the first of the five Western World converters to make such a modification, thus offering both economic and environmental advantages to uranium producers who would like to by-pass the drying and packaging stage of the conventional ore processing plant.

SPECIAL ITEM

Chinese Iron Ore Mission to Canada

From August 6-12 a group of seventeen engineers from the People's Republic of China visited iron ore mines and processing plants in the Quebec-Labrador region and mining machinery manufacturers and consulting firms in Quebec and Ontario.

The purpose of the mission was threefold: to become acquainted with the mining machinery and equipment used by large modern mines in the western world; to meet consulting engineering firms in order to determine whether they have the capability and the willingness to undertake major mining projects in China; and to investigate the possibility of exchanging engineering workers and students with Canada. Upon departure, the mission leader said that their visit had been successful.

In China, iron ore is mined with very small equipment. For example, their common size truck has a holding capacity of 25 tonnes whereas large Canadian mines employ 150-tonne trucks. Chinese beneficiation techniques are also much less sophisticated and this is reflected in their low blast furnace operating efficiency. Quality control of both input and output is inadequate by Western standards and results in a poor quality of steel produced.

China has large reserves of low grade (30-35 per cent Fe) iron ore that need extensive beneficiation before being used in blast furnaces. The mines are much too small to attain the steel development targets set by the Chinese government in order to increase annual steel production capacity from an estimated 30 million tonnes in 1978 to 60 million tonnes in 1985. Their target will require an increase in iron ore mine production from 125 million tonnes a year to about 250 million tonnes. In an effort to reach the target, the Chinese have decided to use Western technology to expand and modernize some of their existing mines. Two of these mines are located near An-shan in the Liaoning Province, northern China. An-shan is one of China's major steelmaking centres and steel capacity is currently being increased. A new steel plant is also being built at Shanghai and there are several expansions at other locations. This means that China will soon need to develop other iron ore mines and/or expand existing ones.

SPECIAL ITEM

'Escape Clause' Petitions in the U.S.A.

Refined Copper

The United States International Trade Commission (ITC) decided on August 3, 1978, by a vote of 4 to 1, that the U.S. copper industry is being injured by imports of unalloyed unwrought (refined) copper.

On August 10, the ITC decided to recommend that a 300,000 short ton a year refined copper import quota be imposed by the United States to provide relief from injury for U.S. copper producers. The ITC also decided to recommend that the import quota should remain in force for five years, from January 1, 1978 and that not more than 25 per cent of the annual quota should be imported in each quarter of the year.

The injury ruling by the ITC came as a surprise and a disappointment. The case of the U.S. copper producers appeared to be weaker than that of the U.S. zinc producers who filed a similar petition, and in whose case a ruling of no injury was made in June 1978. It is possible that the ITC was heavily influenced by the continued rapid escalation of U.S. refined copper imports during the period of its hearings (a doubling of imports is reported for the first five months of 1978 compared with the same period of 1977). Other factors may have been:

- . lack of progress of legislation in the U.S. Senate which would provide for stockpile purchases of copper,
- . lack of any progress in the UNCTAD copper talks in Geneva,
- . the recent near-collapse of the U.S. producer pricing system under competitive pressure from other sources.

The ITC did not elaborate on whether, or how, its recommended quota should be allocated, on a country-by-country basis. It has been left to the President, who can either accept or reject the ITC recommendation within a 60-day period. This presidential decision could itself be overturned by Congress within a period of 90 legislative days.

Should the recommended quota system be implemented on the basis of import levels by country of, say, the last five years, Canada would fare much better than the other major refined copper exporting countries, because imports from Canada into the U.S. have been stable or tending to decline. Imports from other countries, such as Peru, Chile and Zambia have risen sharply.

Should the recommended quota system not be allocated by country, but merely be a global quota of 300,000 short tons a year, it would be filled on a first-come, first-served basis. This would be detrimental to all parties and particularly unfair to Canada, as current merchant warehouse stocks would flood the market and immediately fill the quota each quarter.

Any recommended quota system would be politically difficult to implement, because the delinquent countries are for the most part developing nations, heavily dependent upon copper exports. Imposition of a quota would also have serious effects on the current round of multi-lateral trade negotiations, taking place in Geneva.

SPECIAL ITEM

The Producer Pricing System for Copper in North America

Summary

Increased imports, and intense competition between North American producers have resulted in a serious weakening of the long established, and previously stable North American copper producer pricing system. Producer prices now change with far greater frequency than before and consumers are able to fix prices of copper for future delivery at the time an order is placed.

The flow of imports may now be reduced as North American producers compete with imports more effectively.

Canadian producers who sell in the United States have made marketing changes in order to preserve their market share, but may have to make further adjustments both in their North American and European selling methods.

Background

In North America, primary copper is sold to domestic consumers at United States and Canadian producer prices. The level of producer prices in the two countries generally coincides, after allowance is made for the cost of freight and insurance, and for currency translation. Changes in the producer price, until recently, have generally occurred at intervals of several weeks or months. They have usually been initiated by United States producers, and followed by Canadian producers. After each producer price change all producers have generally come into line at a single price, or a very narrow price range for each primary product. The principal reason for the link between producer prices in the two countries is the substantial flow of exports of refined copper from Canada to the United States. These exports have averaged about 80 000 tonnes annually in recent years.

Copper sold outside North America, and copper handled by merchants or secondary producers inside North America is priced in relation to commodity exchange prices, the most important of which is the London Metal Exchange (LME). The New York Commodity Exchange (COMEX) is the second most important metal exchange in world copper trade.

A relationship exists between the prices quoted on the COMEX, the LME, and by North American producers. Prices move daily and remain very close to each other on the exchanges. Producer prices have, until recently, lagged behind moves in this free market, but followed in the same direction in a delayed, step-wise fashion. Differentials greater

than 2-3 cents a pound have generally encouraged a physical flow of copper into, or out of, North America. Producer prices have therefore followed the free market but have been more stable, missing the highest peaks and lowest troughs.

An unusual feature of the North American copper producer pricing system as it existed until earlier this year was that sales agreements between consumers and producers do not specify the actual purchase price. This price was the producers quoted price at the time of delivery.

Recent Developments

A severe recession hit the world copper market in mid-1974. Prices plunged as consumption fell and stocks rose. A number of brief free market price rallies have occurred since 1974 but have always been followed by a price retreat into the range 50-60 U.S. cents a pound. At such prices, U.S. producers have, on average, been only marginally profitable. Faced with rising costs, particularly in the area of compliance with stricter environmental regulations, U.S. producers tended, in the period 1976-1978, to push prices too high, too fast, often anticipating, rather than following upward movements in free market prices. As a result, in the period 1975-1977, the U.S. producer price exceeded the average LME price by 7 U.S. cents a pound.

This price differential was probably a key factor in the recent rise of refined copper imports into the United States, which culminated in a petition by the U.S. producers to the International Trade Commission, for import relief.

Much of the rising tide of imports of refined copper into the United States is sold by merchants at prices well below producer prices. This fact together with intense market competition among U.S. producers lead to a crack in the producer price system in May this year.

At that time Kennecott, the largest U.S. producer abandoned its traditional pricing method and informed customers that, effective May 26, its daily price would be the previous day's spot price on the COMEX, plus 2½ cents a pound. Kennecott also allowed its customers to price future deliveries at a COMEX quoted future price, up to two months in advance, plus 2½ cents a pound. Cities Service followed the Kennecott move in June with a switch to a similar pricing method.

Anaconda switched to COMEX-related prices, effective August 1. Its new sales agreements differ only in details from the Kennecott formula. Other North American producers have reacted to the changed pricing picture by adhering to the producer price, but making much more frequent price adjustments. These changes have been occurring at intervals of a few days rather than weeks as was the previous practice. In further efforts to compete, Phelps Dodge Corporation and the Canadian producers (Inco, Texasgulf, Noranda Mines Limited and Hudson Bay Mining and Smelting Co., Limited) have offered their customers forward pricing options. For example, Texasgulf from August 11, changed to a pricing method which provides that for any contractual month, the price will be that in effect on the date when the order is placed during the preceding month.

Implications of Pricing Method Changes

A number of important implications arise from these structural changes to North American copper pricing.

1. North American-produced copper is now more competitively priced than during the past 3 years in relation to copper produced outside North America. It can be expected that this will help reduce the flow of refined copper imports into the U.S.

2. The overall instability of the world copper market has been increased. The North American producer prices before the recent changes were much more stable than LME or COMEX prices. CIPEC actually proposed a copper pricing formula in 1977 for its members based partly upon North American producer prices. This may increase the impetus for a solution to the copper markets problems through the UNCTAD copper talks.

3. Canadian producers selling refined copper in the U.S. market may have to make further pricing concessions to consumers if their forward pricing formulas prove inadequate to meet the challenge of the COMEX-related pricing of some U.S. producers.

4. Canada's European refined copper customers have long sought forward pricing concessions. Pressures for contract changes in favour of consumers may prove irresistible now that they have been made in North America.

Canadian producers are expected to be able to remain competitive in both the U.S. and Canadian markets and should be able to adjust to the new business conditions brought about by these pricing changes.

RECENT AMALGAMATIONS AND MERGERS
AS PUBLISHED IN THE GAZETTES

Chief Seneca Oil & Gas Ltd. was formed by the amalgamation of Prucan Holdings Ltd., 114756 Oil & Gas Ltd. and Connex Ltd. on May 2, 1978. Source: Alta June 15, 1978.

Simmons Pipelines Ltd. amalgamated with Rudale Resources Ltd. on May 10, 1978 under the name of Simmons Pipelines Ltd. Source: Alta June 15, 1978.

American Chromium Limited amalgamated with Cougar Development Corporation Ltd. under the name of American Chromium Limited on May 29, 1978.

Chandalar Resources Limited amalgamated with International Park West Financial Corporation Ltd. under the name of International Park West Financial Corporation Ltd. on June 29, 1978.

Texaco Canada Limited - Texaco Canada Limitée amalgamated with Texaco Exploration Canada Ltd. under the name of Texaco Canada Limited - Texaco Canada Limitée on June 1, 1978.

Union Sand & Gravel Ltd. amalgamated with Rockland Holdings Ltd. under the name of Union Sand & Gravel Ltd. on July 6, 1978. Source: Saskatchewan Gazette July 28, 1978.

Surf Exploration Ltd. amalgamated with Black Reef Mines Ltd. and Contrex Limited into a new company under the name of Surf Exploration (1978) Ltd. on July 6, 1978. Source: Saskatchewan Gazette July 28, 1978.

Fittings Limited amalgamated with Canadian Brass Limited under the name of Fittings Limited on January 3, 1978.

Francana Minerals Ltd. amalgamated with Sodium Sulphate (Saskatchewan) Ltd. under the name of Francana Minerals Ltd., June 6, 1978.

Kennametal Ltd. amalgamated with Kennametal of Canada, Limited, A.C. Wickman Limited and Garet Tool Company Ltd. under the name of Kennametal Ltd. on July 1, 1978.

NEW PUBLICATIONS

The following publication was prepared in the Mineral Policy Sector, Department of Energy, Mines and Resources and released for distribution in August.

MR 181 - A Survey of Known Mineral Deposits in Canada
That Are Not Being Mined, by R.C. Annis,
D.A. Cranstone and M. Vallée, price \$4.00.

The above publication is available from the Publishing Centre, Department of Supply and Services, Ottawa.

