

Library
RD82
-8C214
March/77

RÉSERVE/RÉSERVÉ

NOT TO BE TAKEN FROM THE ROOM
NE PAS SORTIR DE LA PIÈCE

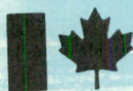
LIBRARY / BIBLIOTHÈQUE

APR 28 1977

GEOLOGICAL SURVEY
COMMISSION GÉOLOGIQUE

The Canadian Mineral Industry Monthly Report

March, 1977



Energy, Mines and
Resources Canada

Énergie, Mines et
Ressources Canada

Minerals

Minéraux

PREFACE

This report is prepared in the Mineral Development 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 l'Exploitation 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.

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

Secteur de l'Exploitation Minérale
Ministère de l'Energie, des Mines
et des Ressources
580, rue Booth
Ottawa, Canada K1A 0E4

CONTENTS

1	SUMMARY
2	ECONOMIC TRENDS
6	TAXATION AND LEGISLATION AFFECTING MINING AND ALLIED INDUSTRIES IN CANADA
6	Federal
6	Provincial
6	British Columbia
6	METALLIC MINERALS AND PRODUCTS
6	Aluminum
7	Chromium
7	Copper
9	Gold
10	Lead
12	Mercury
12	Nickel
13	Silver
14	Steel
15	Tungsten
16	Zinc
18	Zircon
19	INDUSTRIAL MINERALS AND PRODUCTS
19	Asbestos
19	Construction Materials
20	Fertilizers
20	Potash
20	Salt
20	MINERAL FUELS AND PRODUCTS
20	Petroleum and Natural Gas
22	Uranium
23	SPECIAL ITEM
23	Third Session of the UNCTAD Intergovernmental Export Group on Copper, Geneva, March 14-18, 1977
25	RECENT MERGERS AND AMALGAMATIONS
25	NEW PUBLICATIONS

THE CANADIAN MINERAL INDUSTRY FOR MARCH

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

SUMMARY

1. Canada's unadjusted index of Real Domestic Product was 117.1 in January 1977, a decrease of 5.0 per cent from December 1976.
2. The January index of Mines, Quarries and Oil Wells was 108.8, a decrease of 5.6 per cent from the previous month.
3. Alcan Aluminum Corporation may soon acquire its first aluminum smelter located in the United States.
4. The Byrd Amendment, which has allowed the U.S. to import Rhodesian chromite, has been repealed.
5. Noranda Mines Limited has closed the Horne Mine at Noranda, Quebec due to exhaustion of ore reserves.
6. The favourable exchange rate differential and the sharp rise in the price of gold has improved the outlook of Canadian gold producers.
7. Statistics Canada reported that the 1976 mine production of lead was at a 12-year low.
8. In March the fob New York mercury price ranged between \$170 and \$180 (U.S.) a flask.
9. P.T. International Nickel Indonesia, majority-owned by Inco Limited, started production of nickel matte on March 23 at its Soroaka, Indonesia, laterite project.
10. Agnico-Eagle Mines Limited made a significant silver discovery at Cobalt, Ontario.
11. The \$2 billion Cansteel project proposed for Cape Breton, Nova Scotia, has been deferred until international steel markets improve.
12. Canada Tungsten Mining Corporation Limited will expand its Flat River, Northwest Territories operations, doubling mill capacity by mid-1979.
13. Statistics Canada reported that the zinc content of mine production in Canada dropped from 1975 to 1976 but that primary zinc metal production increased.

March 1977

14. Australia will discontinue its fixed minimum price program for the export of zircon.
15. United Asbestos Inc. closed its Midlothian Township operation near Matachewan, Ontario, on March 2.
16. Lake Ontario Cement Limited announced on March 15 that its wholly-owned subsidiary, Aetna Cement Corporation, will purchase the Essexville, Michigan cement plant of Martin Marietta Corporation of Bethesda, Maryland.
17. Canadian Industries Limited intends to close its superphosphate fertilizer plant near Beloeil, Quebec.
18. Potash Corporation of Saskatchewan has arranged to purchase the Sylvite potash mine near Rocanville, Saskatchewan, for \$144 million.
19. The Canadian Petroleum Association estimates that remaining marketable natural gas reserves increased by 1.3 trillion cubic feet to the end of 1976.
20. The British Columbia Ministry of Mines and Petroleum Resources is encouraging exploration efforts in the province, with specific emphasis on uranium.

ECONOMIC TRENDS

Table 1 shows Canada's unadjusted indexes of Real Domestic Product (RDP). The overall RDP index in January 1977 was 117.1, a decrease of 5.0 per cent from December 1976.

The January RDP index for mines, quarries and oil wells was 108.8, down 5.6 per cent from 115.2 in December. The metal mines index decreased over the month by 2.2 per cent to 101.5. Of the metal mining group, iron mines registered a substantial 18.7 per cent decline in product, continuing a consistent downward trend since August of 1976. The January index for mineral fuels also showed a decrease, down 10.4 per cent from December to 116.2. A slight increase of 2.8 per cent was recorded in the nonmetal mines index, up from 125.4 to 128.9 over the month.

Table 2 compares volume of production in major Canadian minerals. Notable changes (December 1976 to January 1977) were recorded in output of copper (up 33.5 per cent), iron ore (down 32.6 per cent), uranium (down 30.2 per cent), and gypsum (down 46.1 per cent). Overall, of eighteen metallic, nonmetallic and fuel minerals surveyed, decreased production was registered by fifteen.

Table 3 compares Canadian import and export data for minerals and mineral products, including fuels. It may be noted that, while crude minerals comprise 67.2 per cent of Canada's total mineral exports, 63.8 per cent of the country's total mineral imports are in crude form.

TABLE 1

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

Industry or Industry Group	Percentage Changes					
	1975	1976	1976	1977		
	-----	-----	-----	-----	Jan 1977	Jan 1977
	Dec	Jan	Dec	Jan	Jan 1976	Dec 1976
Real Domestic Product	119.1	112.5	123.2	117.1	4.1	-5.0
Primary Industries						
Agriculture	32.2	38.9	27.1	32.0	-17.7	18.1
Forestry	93.1	64.7	125.2	94.2	45.6	-24.8
Fishing and Trapping	78.9	40.7	50.7	34.4	-15.5	-32.1
Mines, Quarries and Oil Wells	112.2	106.3	115.2	108.8	2.4	-5.6
Metal Mines	105.8	100.1	103.8	101.5	1.4	-2.2
Placer and Gold Quartz Mines	65.2	70.6	79.2	75.7	7.2	-4.4
Iron Mines	126.2	109.1	135.6	110.2	1.0	-18.7
Other Metal Mines	102.7	99.3	97.1	100.6	1.3	3.6
Mineral Fuels	124.3	115.3	129.7	116.2	0.8	-10.4
Coal Mines	204.2	197.4	207.8	222.6	12.8	7.1
Crude Petroleum and Natural Gas	117.8	108.6	123.3	107.5	-1.0	-12.8
Nonmetal Mines	106.6	111.6	125.4	128.9	15.5	2.8
Asbestos Mines	86.5	85.4	100.5	104.8	22.7	4.3
Secondary Industries						
Manufacturing	110.9	110.1	114.9	114.1	3.6	-0.7
Nondurable Manufacturing	108.3	105.2	113.6	110.5	5.0	-2.7
Petroleum and Coal Products Industries	131.5	130.9	135.9	135.8	3.7	-0.1
Durable Manufacturing	113.6	115.1	116.3	117.7	2.3	1.2
Primary Metal Industries	99.7	102.3	97.1	107.1	4.7	10.3
Iron and Steel Mills	101.3	102.4	102.1	114.4	11.7	12.0
Steel Pipe and Tube Mills	114.4	130.8	121.3	125.7	-3.9	3.6
Iron Foundries	91.2	110.3	87.6	106.7	-3.3	21.8
Smelting and Refining	94.9	95.6	85.7	95.1	-0.5	11.0
Nonmetallic Mineral Products Industries	103.7	91.0	100.5	87.0	-4.4	-13.4
Cement Manufacturers	84.7	59.8	90.2	57.5	-3.8	-36.3
Ready-mix Concrete Manufacturers	66.7	51.7	67.2	50.6	-2.1	-24.7
Construction Industry	109.9	96.7	103.6	94.0	-2.8	-9.3
Transportation, Storage, Communication	125.2	119.5	129.2	125.0	4.6	-3.3
Electric Power, Gas and Water Utilities	141.7	159.5	163.6	173.1	8.5	5.8
Trade	153.9	106.8	157.2	112.8	5.6	-28.2
Finance, Insurance, Real Estate	125.0	124.7	132.1	132.0	5.9	-0.1
Community, Business and Personal Service	120.4	121.2	125.5	126.9	4.7	1.1
Public Administration and Defence	117.9	117.9	121.5	121.3	2.9	-0.2

TABLE 2

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

		1975	1976	1976	1977	Percentage Changes	
		December	January	December	January	January 77 January 76	January 77 December 76
Metals							
Copper		61.6	68.9 ^r	53.8	71.8	+ 4.2	+33.5
Gold	kg	4 235.7	4 632.8	4 634.2 ^r	4 285.4	- 7.5	- 7.5
Iron ore		4 454.2	1 716.0 ^r	3 826.1	2 578.2	+50.2	-32.6
Lead		42.3	18.6	22.8	19.5	+ 4.8	-14.5
Molybdenum	t	1 295.3	1 229.6	1 290.0	1 134.0	- 7.8	-12.1
Nickel		20.0	21.5 ^r	19.3	23.1	+ 7.4	+19.7
Silver (1)	t	113.3	106.4 ^r	118.1	97.1	- 8.7	-17.8
Uranium	t	502.9	327.0	431.6	301.2	- 7.9	-30.2
Zinc		106.5	100.0	100.5	74.2	-25.8	-26.2
Nonmetals							
Asbestos		127.2	110.8	139.2	110.5	- 0.3	-20.6
Gypsum		477.0	325.7	594.9	320.9	- 1.5	-46.1
Potash K ₂ O		371.4	397.5 ^r	462.2	454.6	+14.4	- 1.6
Salt		456.7	602.9	660.8	641.9	+ 6.5	- 2.9
Cement		499.3	362.8	492.9	356.1	- 1.9	-27.8
Clay products	\$000	5 301.1	3 334.5	6 202.8
Lime		127.8	113.3	139.0	135.2	+19.3	- 2.7
Fuels							
Coal		2 315.6	2 284.8	2 719.6	2 386.2	+ 4.4	-12.3
Natural Gas	000 m ³	8 063 138.1	8 151 543.3 ^r	8 262 573.7 ^r	8 555 426.5	+ 5.0	+ 3.5
Crude oil and equivalent	000 m ³	7 937.6	7 174.8 ^r	8 304.2 ^r	6 813.7	- 5.0	-18.0

(1) Tonnes uranium (1 tonne U = 1.2999 short tons U₃O₈).
^r Revised; .. Not available.

March 1977

TABLE 3

March 1977

Canada, Exports of Minerals*, Crude and Fabricated

	1974	1975	1976 ^P
		(\$ millions)	
Crude	7,385.3	7,660.4	8,060.2
Fabricated	3,792.3	3,540.7	3,943.6
Total mineral exports	11,177.6	11,201.1	12,003.8
Total domestic exports, all products	31,674.5	32,325.0	38,076.9
Crude minerals as % of mineral exports	66.1	68.4	67.2
Crude minerals as % of exports, all products	23.3	23.7	21.2
Total mineral exports as % of exports, all products	35.3	34.7	31.5

Canada, Imports of Minerals*, Crude and Fabricated

	1974	1975	1976 ^P
		(\$ millions)	
Crude	3,473.5	4,539.9	4,416.8
Fabricated	3,275.7	2,751.5	2,504.9
Total mineral imports	6,749.2	7,291.4	6,921.7
Total imports, all products	31,692.1	34,635.5	37,432.6
Crude minerals as % of mineral imports	51.5	62.3	63.8
Crude minerals as % of imports, all products	11.0	13.1	11.8
Total mineral imports as % of imports, all products	21.3	21.1	18.5

* Including fuels

p Preliminary.

March 1977

TAXATION AND LEGISLATION AFFECTING MINING AND ALLIED INDUSTRIES IN CANADA

Federal

Metal Mining Liquid Effluent Regulations, SOR/77-178, were recently established under the *Fisheries Act*. The regulations apply to all mines other than gold mines. Deleterious substances are prescribed as: arsenic, copper, lead, nickel, zinc, total suspended matter and radium 226. The regulations establish limits to the amount of deleterious substance which may be deposited, and impose general conditions of authorization for deposition, frequency of sampling and analyzing, analytical test methods, flow measurement and reporting.

Provincial

British Columbia

Drilling and Production Regulations, BCR 628/76, under the *Petroleum and Natural Gas Act*, 1965, repeals and replaces BCR 60/69 as amended by BCR 249/69, 8/72 and 162/76. The new regulation is a general updating of the former regulation as amended.

METALLIC MINERALS AND PRODUCTS

Aluminum

On March 10, Revere Copper and Brass Incorporated and Alcan Aluminum Corporation (Alcan), a subsidiary of Alcan Aluminium Limited, announced that they have agreed in principle to the sale by Revere to Alcan of its 100 000-tonne aluminum smelter and adjacent hot and cold rolling facilities (of approximate equal capacity) located in Scottsboro, Alabama. The sale, for about \$140 million, includes the assumption of approximately \$113 million of industrial development bond obligations related to the facilities. The transaction is subject to a number of conditions including approval from the Anti-Trust Division of the U.S. Department of Justice. Revere's Jamaican bauxite facilities are not included in the agreement. The proposed acquisition would provide Alcan with its first smelter in the United States and the potential for expansion that would permit Alcan to become a more significant competitor with the U.S.-integrated producers.

March 1977

On March 21, the Aluminum Company of America announced that it was increasing the price of unalloyed primary aluminum ingot by 3 cents a pound to 51 (U.S.) cents, effective on all shipments after April 1. Within a day, all North American producers had followed suit. Price changes were also announced on certain semi-fabricated products. The Aluminum Company of Canada, Limited's United States price is now 51 cents a pound and its export price is 51 (U.S.) cents c.i.f. major world ports, except Latin America and West Africa where the price is increased to 52.5 cents from 49.5 cents.

Chromium

On March 18, President Carter signed legislation repealing the Byrd Amendment which has allowed the U.S. to import Rhodesian chrome, contrary to the economic sanctions of the United Nations. The U.S. relies on Rhodesia for about 20 per cent of its ferrochrome and about 10 per cent of its chromite requirements. The price for chrome from other suppliers can be expected to increase as a result of the Rhodesian ban. U.S. customs officials feel that it is going to be very difficult to identify imported specialty steels containing Rhodesian chrome, which are also included in the ban.

Copper

Copper prices were in a strong rising trend during March. The cash price for copper wirebars on the London Metal Exchange (LME) rose from 66.8 (U.S.) cents a pound at the beginning of the month to 68.5 (U.S.) cents a pound at month-end. Producer prices in the United States rose twice: by 3 cents a pound on March 2 and by a further 3 cents a pound on March 18, to end the month at 74 (U.S.) cents a pound for cathode and 74.625 (U.S.) cents a pound for wirebars. Producer prices in Canada followed the upward move in U.S. prices. The increases were greater in Canada, however, due to the falling value of the Canadian dollar. Canadian prices were increased by 5 cents a pound on March 10, and by 3.5 cents a pound on March 28. Prices at month-end were 77.625 cents a pound for cathode and 78.25 cents a pound for wirebars. This strength in March copper prices can be attributed to events in Southern Africa, the possibility of a strike against U.S. producers at the end of June, and to weakly rising copper demand.

Stocks of copper in LME warehouses declined from 618 950 tonnes on March 4, to 613 825 tonnes on March 25. During the same period, COMEX stocks increased from 191 838 tonnes to 194 000 tonnes.

March 1977

Labour contracts at the mines of AMAX, Inc., The Anaconda Company, ASARCO Incorporated, Cities Service Co., Inspiration Consolidated Copper Co., Kennecott Copper Corporation, Phelps Dodge Corporation and a number of smaller U.S. producers expire at the end of June 1977. The possibility of strikes against one or more of these companies has resulted in preshipments to consumers of copper which will be required in the third quarter. Copper traders are expected to import large quantities of copper into the U.S. in the coming months as a strike hedge.

Katangan rebel forces invaded Zaire during March. Fighting took place in the Province of Shaba, formerly Katanga, the copper-producing area of the country. The threat of a physical interruption of shipments from Zaire had a bullish effect upon copper prices during the month.

The Annual Reports for 1976 for a number of copper producers were published during the month. The earnings of these companies in general showed an improvement over their depressed 1975 level.

Noranda Mines Limited reported that its Horne Mine at Noranda, Quebec was closed due to exhaustion of ore reserves after operating for over fifty years. The mine produced 1.2 million tonnes of copper, 10 million ounces of gold and 22.3 million ounces of silver. The smelter at Noranda continues to treat concentrates from other mines. The Noranda Continuous Smelting Reactor produced in excess of its design capacity in 1976. The program of spending restraint continued during 1976, and no further work was carried out at Noranda on new sulphuric acid production facilities. Noranda is carrying out a feasibility study on the Goldstream copper-zinc deposit in British Columbia and is studying geological data on the Andacollo copper deposit in Chile.

Inco Limited mined a total of 18.0 million tonnes of ore in 1976 with an average grade 0.97 per cent copper and 1.41 per cent nickel. This compares with 19.2 million tonnes in 1975 with an average grade of 0.92 per cent copper and 1.40 per cent nickel. Inco operated 15 mines and maintained three on a standby basis.

Lornex Mining Corporation Ltd. had a most successful year in 1976. Copper production rose to 65 400 tonnes, compared with 53 500 tonnes in 1975. The increase was made possible by changes in the sales contract with the company's Japanese buyers which now allow sales to other purchasers. Lornex has a very favourable smelting contract with its Japanese buyers but has agreed to negotiate changes after March 1977. Lornex increased its ore reserves by 88.9 million tonnes in 1976 to 454 million tonnes with an average grade of 0.412 per cent copper and 0.015 per cent molybdenum.

Brenda Mines Ltd. produced over 10 million tonnes of ore in 1976, a record quantity. A highly successful computer control scheme was brought into operation on all four grinding lines in January 1976 and resulted in a 10 per cent overall increase in the milling rate compared with 1975.

March 1977

Afton Mines Ltd. reported that preparations for production would begin at the open pit mine, British Columbia, in March 1977. At the end of January 1977, \$29 million had been spent on the project and a further \$17.6 million committed for equipment purchase. The total cost of the project is budgeted at \$80 million. Production is expected to begin late in 1977.

Sherritt Gordon Mines Limited is rumoured to have made a significant discovery near its now-closed Lynn Lake mine in Manitoba. The company is carrying out an exploration program in association with the government-owned, Manitoba Mineral Resources Ltd.

The third session of the Intergovernmental Expert Group on Copper took place in Geneva, March 14-18, 1977. An account of this meeting is included as a "Special Item" in this report. Norway, which participated actively in these discussions, has announced that it will establish its own national stabilization scheme for copper prices. A \$144 million copper fund will be established with government financing to stabilize the price received by Norwegian producers at a level of \$1.00 a pound.

Gold

On March 2, 1977 The International Monetary Fund held its first gold auction under the new schedule in which auctions will take place on the first Wednesday of each month and 525,000 ounces of gold will be offered for auction.

The successful bidders were awarded 524,400 ounces of gold at a price range from \$145.55 (U.S.) to \$148.00 (U.S.) an ounce, and the bids averaged \$146.51 (U.S.) an ounce. The accepted bid price at the sixth auction held in January 1977 was \$133.26 (U.S.) an ounce. The afternoon fixing price on the London Gold Market on March 1 was \$141.40 (U.S.) an ounce but it increased to \$145.05 (U.S.) an ounce on March 2. Bids were received for a total of 1,632,800 ounces. The majority of the bids were in the price range of \$141.00 (U.S.) to \$148.00 (U.S.) an ounce. The seven successful bidders were European banks and bullion dealers.

The gold price increased sharply in March from a low of \$141.40 (U.S.) at the afternoon fixing price on the London Gold Market on March 1 to a high of \$156.60 (U.S.) an ounce at the morning fixing on March 25. A statement by the Chairman of the United States Banking Committee that the United States should give consideration to selling gold from its stockpile on the free market and profit taking by speculators combined to reverse the pattern of a continuing rise in the price of gold. The closing gold price on the London Gold Market for the month of March was \$148.90 (U.S.). The monthly average of the afternoon fixing gold price on the London Gold Market for March 1977 was \$148.23 (U.S.) (\$155.80 Cdn.), compared with \$136.30 (U.S.) (\$140.10 Cdn.) an ounce in February.

March 1977

The sharp rise in the price of gold plus the favourable exchange rate differential has improved the outlook for Canadian gold producers from the depressed state they faced in 1976. Many of the lode gold operators who stopped or sharply curtailed exploration and development work in 1976 to reduce operating costs are now in a position to consider reactivating these programs. The gold price will have to show stability at the present price range or even higher before any sharp upsurge in gold exploration can be expected.

Lead

Statistics Canada reported mine production of lead in 1976 was at a 12-year low of 247 082 tonnes, down 105 420 tonnes from the 1975 level. Refined metal production increased 4 024 tonnes to 175 720 tonnes in 1976 as strikes, which hampered mine production, had little effect on Canada's two primary processing plants.

The increased price of refined lead has renewed interest in one of the largest undeveloped straight lead deposits in North America. The Yava deposit near Sydney on Cape Breton Island was recently purchased by Barymin Explorations Limited. Plans are now being formulated for an initial underground test to prove up the diamond drilling originally done in the 1962 to 1969 period by Phelps Dodge Corporation and to determine mining costs. The orebody contains three zones (West, Central and East) with some higher grade sections present in the West zone. Reserves based on a cut off grade of 1 per cent are listed as 71.0 million tonnes grading 2.09 per cent lead, or 6.2 million tonnes grading 4.95 per cent lead at a cut off grade of 4 per cent. Both estimates use a dilution factor of 10 per cent. The underground program is expected to cost \$750,000.

With the continued strengthening of the lead price on the London Metal Exchange (LME) during late February and early March, producers in North America increased the price of refined lead from 29.0 to 31.0 cents a pound. The LME position of strength quickly reversed itself during the last half when it was announced that the Bank of England would accede to the wishes of the British Battery Manufacturers' Society to investigate speculative activity in the trading of lead on the LME. This factor plus the sudden availability of scrap material caused a good deal of uncertainty and, in about 10 trading days, the price dropped by over £50 a tonne. After setting an all-time spot price high of £437.5 a tonne (35.5 cents a pound/78.3 cents a kg, Cdn.) on March 3 for spot metal, the price dropped to £336 before recovering to £370 a tonne on March 31 (30.5 cents a pound/67.2 per kg). LME stocks decreased 175 tonnes during the month to 68 825 tonnes on March 25.

March 1977

The tightness of the lead market may ease as the peak battery manufacturing period is over and scrap availability is no longer hampered by winter weather conditions. Nonetheless, the continuing (7-month) strike at ASARCO Incorporated's Glover, Missouri lead plant plus the continuing poor markets for zinc and copper will keep both lead metal and lead in concentrates in tight supply during 1977.

Dowa Mining Co. Ltd. in Japan announced that it was increasing refined lead production from 1 000 to 1 200 tonnes a month at its Kosaka plant based on an increased supply of feed from its domestic mines. The lead price in Japan hit a 27-year high during the month with demand continuing strong from the battery and electric appliance sectors. Most Japanese producers are unable to increase output due to shortages in the supply of foreign concentrates.

Production at the Faro, Yukon Territory, lead-zinc mine of Cyprus Anvil Mines Corporation is still being hampered by a shortage of skilled workers, a carryover from the four-month strike that ended last December.

A study by the Council on Wage and Price Stability in the United States has concluded that new lead pollution standards proposed by the Occupational Safety and Health Administration (OSHA) would cause many small, secondary lead producers and battery manufacturers to go out of business. The major anticompetitive effect of the standards would be to strengthen the oligopolistic structure of the secondary industry in the U.S., leaving production essentially in the hands of four major producers. The proposed standard for worker exposure to airborne lead is 100 micrograms a cubic meter of air over eight hours (presently set at 200), and the proposed standard for blood lead levels is 60 micrograms per 100 grams of blood (no existing standard). The OSHA standards mandate engineering controls by industry to meet them but the Council's report states that if companies are not allowed flexibility in meeting such standards by such methods as improved work practices and safety equipment, the estimated operating expenditures by industry to meet the standards could be \$300 million a year.

A recent report by Commodities Research Unit Ltd. (CRU) predicts that the present shortage of lead will persist and may even become more acute in the near future. CRU noted that although there was no shortage of scrap, there was a shortage of high grade 99.99 per cent lead while 99.97 per cent lead was more plentiful. In another report made public during March, Charter Consolidated Limited forecast that lead will not hold its present price level during the second half of 1977 but that there will be a supply deficit of 200 000 tonnes for the year.

In a speech before the National Association of Recycling Industries in the United States, the vice-president of marketing of AMAX Lead & Zinc, Inc. forecast that lead consumption would increase 2.5 per cent in the U.S. and 3.0 per cent in the rest of the world in 1977. If this growth rate continues, the U.S. will not reach the record consumption levels attained in 1973 and 1974 before 1980 or 1981.

March 1977

Growth in the manufacture of batteries is likely to be around 4 per cent annually which will more than offset the decline in tetraethyl lead consumption in gasoline.

Even though there is presently some weakness in the LME lead price, the outlook for 1977 is one of tight supply whereby any disruption in the flow of concentrates or metal is likely to have a strong upward influence on prices. Labour contracts are scheduled for negotiation at Cominco Ltd. in Canada and at several U.S. plants. The relatively poorer markets for zinc and copper will continue to act as a governor on the overall availability of lead concentrates. As CRU noted in their report, lead concentrates stocks in Europe are currently very low with less than a two-week supply on hand. The same situation exists in Japan and is not likely to be alleviated until May or June when Cyprus Anvil will reach full production levels. Consequently, if consumption does advance by 2 to 3 per cent in 1977, the market appears to be headed towards a shortfall on the supply side for the year.

Mercury

In Yugoslavia, it is reported that the country's largest mercury producer, the Idrija mine, will cease production because of depressed mercury prices and high worldwide stocks. The mine, with a reported capacity of 15,000 flasks (76 pounds each) of mercury a year, will be maintained on a care-and-maintenance basis. The Idrija mine is state-controlled and accounts for most of Yugoslavia's mercury production. It is understood that its output is all consumed within Comecon (Council for Mutual Economic Assistance); nevertheless, its closure could lead to more Eastern Bloc enquiries on the London mercury market.

In March the fob New York mercury price ranged between \$170 and \$180 (U.S.) a flask.

Nickel

P.T. International Nickel Indonesia, majority-owned by Inco Limited, started production of nickel matte on March 23 at its Soroaka, Indonesia, laterite project. Work is continuing on the second stage of the project which will triple the annual capacity from 15 800 tonnes to over 47 000 tonnes of nickel contained in a 75 per cent nickel matte. The second stage, which includes a hydroelectric plant on the Larona River, is expected to start production late in 1980. The official opening of the Soroaka plant was held on March 31.

March 1977

Silver

Agnico-Eagle Mines Limited made a significant discovery at its silver property in the Cobalt area of northern Ontario. Following considerable exploration work and expenditures of up to \$2 million since 1972, the company is now drifting in good grade ore at a depth of over 490 meters, somewhat out-of-the-ordinary in the Cobalt mining camp where, over the years, the average depth of the mines was about 180 meters from surface. The discovery was made at the lower contact of the regional 300-meter thick sill of Nipissing diabase. The discovery could represent an important new development for the Cobalt district which has, in recent years, been reduced to two main silver producers, the Agnico-Eagle mine and that of the Silverfields Division of Teck Corporation Limited. No announcement was made with respect to tonnages or silver grades. In each of the years 1975 and 1976, the Agnico mine produced less than 15 500 kilograms (one-half million troy ounces) of silver. This year's objective is a minimum of 31 000 kilograms (one million ounces), which was set before the new deep discovery was made.

Winslow W. Bennett, president of Equity Mining Corporation, announced that operations might begin within a year at what could become one of Canada's largest mine producers of silver. The property is Equity Mining's Sam Goosly silver-gold-copper property, 65 kilometers south of Smithers, British Columbia. Equity Mining holds a 70 per cent interest in the property with the remaining 30 per cent interest being held by Kennco Explorations (Western) Limited, a subsidiary of Kennecott Copper Corporation. In January 1977, it was announced by Placer Development Limited that its wholly-owned subsidiary, Canex Placer Limited, planned to take a 30 per cent interest in Equity Mining as part of a deal to assist in the development of the Sam Goosly property. Winslow Bennett also said his company is ready to start open pit development of the property with full production targeted for 1979. Reserves of ore mineable by open-pit methods have been estimated at 39.5 million tonnes grading 95.3 grams of silver (3.06 ounces) and 0.9 g. of gold (0.029 ounce) a tonne, and 0.33 per cent copper. At a proposed production rate of 4 350 tonnes of ore a day, recoverable silver in concentrates could be as high as 140 000 kilograms (4.5 million ounces) a year.

The largest silver mine in the United States began production again on March 14 after about 500 striking members of the United Steelworkers of America union voted to accept a new 3-year contract offer from Sunshine Mining Company. The company's mine at Kellogg, in the Coeur d'Alene district of Idaho, had been on strike since March 11, 1976. The property is jointly owned by Sunshine Mining Company (57.14 per cent), Hecla Mining Company (33.25 per cent), and Silver Dollar Mining Company (9.61 per cent). It is expected that the mine will reach full production about mid-April 1977. In 1975, the last full year of operations, the mine produced 158 600 kilograms (5.1 million ounces) of silver.

March 1977

About mid-March, Great Western United Corporation acquired a 6 per cent interest in the Sunshine Mining Company and plans to acquire another 35 per cent. Great Western bought the 6 per cent interest from the two dissident co-owners, Hecla Mining and Silver Dollar. An interesting note to these acquisitions is that Great Western, a major producer of sugar, is controlled by the Hunt brothers, W. Herbert and N. Bunker, heirs of the late Texas oil magnate, H.L. Hunt. Bunker Hunt has been an active and much-discussed silver speculator in recent years. In 1976, Great Western concluded a deal to exchange substantial quantities of silver for Panamanian and Philippine sugar. It is also believed in some circles that he may be the largest private holder of silver in the world. His acquisition of Sunshine shares, and possible controlling interest in the largest silver mine in the United States would be a bright feather in his cap.

Steel

Following a meeting with representatives of the three companies participating in the Cansteel project - August Thyssen International of West Germany, Hoogovens-Holsch Estel of the Netherlands and Dominion Foundries and Steel, Limited of Canada - the Premier of Nova Scotia indicated that the \$2 billion steel mill project proposed for Cape Breton will not be built until international markets for steel improve, which may mean a couple of years. Meanwhile, in Halifax the province's Finance Minister, Peter Nicholson, reported that the Nova Scotia government has decided to improve the aging Sydney Steel Corporation (Sysco) plant. Sysco's steelmaking facilities are located at Sydney, Cape Breton Island and the plant has an annual steelmaking capacity of 1.1 million tonnes. It employs some 2,700 people.

The capital spending budget of The Algoma Steel Corporation, Limited of Sault Ste. Marie, Ontario will be in the range of \$25 to \$35 million in 1977, compared with \$51.4 million in 1976 and \$104.5 million in 1975, according to John MacNamara, company president and chief executive. Algoma's earnings before income tax as a per cent of sales were reduced to 4 per cent in 1976 from 7.9 per cent in 1975 and 11.3 per cent in 1974. MacNamara said that capacity utilization in the Canadian steel industry had dropped from 88 per cent in 1974 to 80 per cent in 1976, and steel ingot making capacity had increased by 1 million tonnes to 16.9 million tonnes. Canadian steel mills continue to face the threat to offshore steel being dumped into Canada at distressed prices as government-controlled steel industries in developed and developing countries continue to expand production while world demand for steel products increases at a much slower rate.

The Atlas Steels Division of Rio Algom Limited, Canada's largest producer of stainless and specialty steel, reports that its 1976 earnings from the Tracy and Welland operations were considerably lower than in 1975 due to depressed markets in non-automotive products, the two-month strike at its Tracy plant, and rising costs in general.

March 1977

While the company is trying to expand capacity, it is also faced with lower than expected demand, import restrictions in the United States, and increased competition from Western Europe and Japan. Atlas is now working at less than 80 per cent capacity as it did for most of 1976. It is particularly affected by imports of stainless bars from Spain and flat-rolled stainless sheet and plate from West Germany, Britain and Japan. Also, Atlas sales have been declining in Britain, Australia and New Zealand in recent years. While the United States has imposed quotas on stainless steel imports there is no restriction on imports into Canada.

QSP Ltd. of Lachine, Quebec has asked the Government of Quebec for a \$7.5 million loan guarantee to prevent company bankruptcy. The government has rejected the company's proposal, however, and the latter now intends to ask the Federal Government for help.

QSP operates a modern and integrated scrap processing-to-steel mill operation with a steelmaking capacity of some 275 000 tonnes a year. The company employs 1,200 people at various locations throughout the province. QSP's financial problems started when the former scrap steel processor moved into steelmaking with construction of a \$24 million Longueuil mill about four years ago. Competition for labour during construction of the Olympic facilities led to cost overruns and delays in the mill's completion. When the mill did come on stream, it was too late and QSP lost several lucrative Olympic contracts. Moreover, steel demand was low in 1975 and 1976 and the company operated at a loss. QSP competes directly with the government-owned Sidbec-Dosco Limited for its reinforcing and structural steel markets.

QSP's sales and profits for the period 1972-76 are shown below.

		(millions of dollars)			
	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>	<u>1972</u>
Sales	28.4	43.4	69.3	43.6	28.4
Profit (loss)	(6.0)	(3.8)	4.1	1.4	(0.1)

Tungsten

Canada Tungsten Mining Corporation Limited plans to begin construction this summer on a \$10 million expansion of its mine and mill in the Flat River Valley of the Northwest Territories. The expansion will double Canada Tungsten's milling capacity from 450 to 900 tonnes of ore a day by the summer of 1979. At the end of 1976, ore reserves on the property were estimated to be over 4 million tonnes grading 1.55 per cent tungsten trioxide (WO₃). This figure is likely to be increased as the cut off grade for the ore is reevaluated in light of the doubling of tungsten prices in the past year.

March 1977

Zinc

Statistics Canada reports that the zinc content of mine production in Canada was 1 158 000 tonnes in 1976, down 71 000 tonnes from 1975, and that primary zinc metal production was 472 000 tonnes, up 45 000 tonnes from the previous year. Capacity utilization was approximately 75 per cent for zinc-producing mines and 73 per cent for zinc refineries. Domestic metal consumption as measured by shipments to consumers was 134 000 tonnes compared to 149 000 tonnes in 1975. The zinc content of mine exports declined 70 000 tonnes to 648 000 tonnes and primary zinc metal exports increased 103 000 tonnes to 350 000 tonnes.

The table below reflects the impact of these results and market conditions in general upon the financial performance of the principal corporations which account for all Canadian zinc metal production and over 90 per cent of Canadian zinc mine production.

<u>REPORTED NET EARNINGS 1974-1976</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
	(\$millions)		
<u>Integrated Zinc Producers</u>			
Cominco Ltd.	86.3	73.6	47.7
Texasgulf Inc.	147.3	103.2	62.9
Noranda Mines Limited	154.9	50.5	46.7
Hudson Bay Mining and Smelting Co. Limited	38.8	14.8	2.8
	<u>427.1</u>	<u>242.1</u>	<u>160.1</u>
<u>Other Zinc Mine Producers</u>			
Cyprus Anvil Mining Corporation	25.9	20.6	(1.3)
Brunswick Mining and Smelting Corporation Limited	17.1	12.6	7.5
Pine Point Mines Limited	36.9	16.9	9.3
Sherritt Gordon Mines Limited	23.0	11.2	4.1
Mattagami Lake Mines Limited	40.1	24.4	15.0
Orchan Mines Limited	5.1	2.2	1.6
Western Mines Limited	2.8	0.7	0.3
Falconbridge Copper Limited	9.9	0.7	4.9
a) Lake Dufault Divison*	n.a.	1.2	5.7
b) Sturgeon Lake Division*	n.a.	1.9	1.3
	<u>160.8</u>	<u>89.3</u>	<u>41.4</u>

* Excluded from group totals.

March 1977

The Thai Zinc Co. Ltd., owned 55 per cent by New Jersey Zinc Company in the United States and 45 per cent by the government of Thailand, announced on March 3, 1977 that it will proceed with the construction of a \$90 million integrated zinc mine and refinery at Tak, Thailand. Planned metal capacity is 60 000 tonnes of which 25 000 tonnes is required for domestic consumption. The project would be operational by 1979-1980. Original plans called for Thai Zinc to be recapitalized at \$25 million with New Jersey Zinc contributing \$13.75 million in equity and the government's shares to be issued as fully paid. The smelter was expected to cost about \$60 million, financed by the International Finance Corp., an affiliate of the World Bank, and from cash flow from mine exports prior to smelter start-up.

The Italian state-owned agency, EGAM, which controls most of the country's nonferrous metal mining and smelting is to be dissolved with other agencies taking over the group's holdings. AMMI S.p.A. and AMMI SARDA representing the zinc sector will be affected, but further details are yet to be announced.

O'Okiep Copper Company Ltd. announced that feasibility studies on the South African Gamsberg deposit were complete. It appears that mining of the orebody at a rate of 3 million tonnes of ore a year is economically and technically viable. The reserves are listed as 93.5 million tonnes grading 7.4 per cent zinc and 0.55 per cent lead. Metallurgical and mining problems appear to be solveable but the problems of infrastructure involve water supply, electricity and transportation. The nearest rail link is 90 miles away. O'Okiep along with Newmount Mining Corporation of the United States are now trying to raise the financing to bring the prospect into production (probably in the 1980 to 1983 period).

The Irish government announced its intention to build a 100 000 tonne-a-year zinc smelter to process output from Tara Mines Ltd. and Bula Ltd. at Navan in County Meath. Cost of the smelter is estimated at \$136 million and plans call for the plant to be fully operational by 1981 with provision for later expansion to 200 000 tonne capacity. The New Jersey Zinc Company, a subsidiary of Gulf & Western Industries Inc. will be the majority shareholder according to the Irish government. Bula Ltd. and Tara Mines will be offered participation in the project and the Irish government will also be a substantial shareholder. In a statement attributed to Gulf & Western, the company announced that the New Jersey Zinc Co., would lead a smelter feasibility study. Various Irish government agencies will have representatives on the study group and the feasibility report will be complete in six months.

World prices for prime western zinc in March remained unchanged from February at \$799.17 a tonne in Canada, \$795 a tonne in Europe and \$815.70 a tonne in the United States. Cash zinc on the London Metal Exchange eroded from \$720 on March 1 to \$710 on March 31.

March 1977

Zircon

The Australian government has announced that it will discontinue its fixed minimum price program for the export of zircon. The minimum price program was started in November of 1975 in an attempt to ensure that Australian producers would receive a fair price for their zircon exports, when it became apparent that a severe oversupply of zircon was emerging. Since Australian producers account for some 80 per cent of the world's zircon supply, the Australian government had hoped that the minimum export price for Australian zircon would be a reference price for zircon and thus serve to stabilize the market at what the Australians felt was a reasonable price. The controls have not had the desired effect. While the minimum export prices set for 1976 and 1977 were \$A 140-150 a tonne of zircon fob mine and \$A 115-125 a tonne respectively, the actual export value for Australian zircon through late 1975 and 1976 has been less than \$A 100 a tonne. Zircon export prices are still subject, however, to approval by the government.

March 1977

INDUSTRIAL MINERALS AND PRODUCTS

Asbestos

United Asbestos Inc., Montreal, closed its mining and milling operation in Midlothian Township, 17 miles from Matachewan, Ontario, on March 2, 1977. The company is in default and is being held in receivership for failure to meet financial obligations to the Mercantile Bank of Canada and the company's fibre distributor in Japan, Kanematsu-Gosho. The company was not successful in seeking a \$35 million private placement with financial institutions in the U.S. A major reason for failure to meet financial obligations was a mandatory slowdown in production to meet the new, relatively strict, Ontario environmental regulations. The company operated at only 20 to 30 percent of its capacity after commencing operations in October, 1975 and was not able to generate sufficient cash flow to meet its obligations. Financing continues to be sought and during this period the operation will be maintained on a caretaker basis.

Canadian Johns-Manville Company, Limited announced that it will proceed with its \$77 million capital expenditure program at Asbestos, Quebec. A temporary halt to investment was made following Premier René Levesque's recent New York City speech (see January 1977 Monthly Report). The decision to proceed with the program was based on the Quebec government stance that private enterprise will continue to play a major role in the asbestos industry if there is more company co-operation in the development of manufacturing activity in the province.

Asbestos Corporation Limited has not yet announced plans to proceed with expenditure programs in Ungava at the Asbestos Hill mine. Also, no decisions have been made to date regarding Asarco and Brinco Limited's future plans for the Abitibi Asbestos prospect, 52 miles north of Amos, Quebec. Costs to production at this property were estimated to be nearly \$300 million.

Construction Materials

Lake Ontario Cement Limited announced on March 15 that its wholly-owned subsidiary, Aetna Cement Corporation, will purchase the Essexville, Michigan, cement plant of Martin Marietta Corporation of Bethesda, Maryland. The purchase price for the property, plant, equipment and current assets will be approximately \$7 million and the transaction is expected to be completed by mid-April. Lake Ontario Cement has been supplying the Michigan plant with cement clinker under contract since April 1976. The acquisition will assure Lake Ontario of continued high utilization of clinker output from its Picton, Ontario plant. Lake Ontario will operate the Michigan facility as Aetna Cement Corporation.

March 1977

Fertilizers

Canadian Industries Limited (CIL) has announced that it intends to close the superphosphate fertilizer plant near Beloeil, Quebec. The 65 plant employees will be absorbed by other CIL operations at the same site. CIL will continue to supply fertilizers from its Courtright, Ontario plant which has been operating below capacity.

Potash

Potash Corporation of Saskatchewan (PCS) has arranged to purchase its second mine, the Sylvite mine belonging to Hudson Bay Mining and Smelting Co. Limited located near Rocanville at the Saskatchewan-Manitoba border. The mine will cost Saskatchewan \$144 million.

In the United States, a mistrial was declared in an investigation of several potash companies accused of price fixing in the U.S. related to Saskatchewan's prorationing scheme. One firm had already been acquitted and some of the charges were dismissed for the remaining firms. The case will now be considered by the judge without a jury.

Salt

In North Vancouver, a five-week strike at Hooker Chemicals ended on March 7 with ratification of a one-year contract. Three caustic soda-chlorine plants in British Columbia were struck in February and Hooker is the second of these to settle.

MINERAL FUELS AND PRODUCTS

Petroleum and Natural Gas

This month the Canadian Petroleum Association (CPA) released its annual estimates to the end of 1976 of remaining proved reserves of crude oil, natural gas, natural gas liquids and sulphur. According to the CPA, marketable natural gas reserves increased by 1.3 trillion cubic feet (tcf) to 58.28 tcf. Extensions to existing fields and new discoveries accounted for the bulk of additions to reserves in 1976. Using the

March 1977

1976 annual level of production of 2.54 tcf, the life index (reserves to production level) for natural gas increased to 22.9 years. Alberta, with 45.6 tcf of marketable gas reserves, accounted for 78 percent of Canadian reserves at the end of 1976. The Territories and Arctic Islands accounted for 4.8 tcf of the national total.

Canada's proven liquid hydrocarbon reserves, which include conventional crude oil and natural gas liquids (propane, butane and pentanes plus) amounted to 7.8 billion barrels, 436 million barrels less than in 1975. This is comprised of 6.3 billion barrels of crude oil and 1.5 billion barrels of natural gas liquids. These estimates do not include oil in the Athabasca oil sands. At the 1976 annual production level of 544 million barrels, the life index for conventional crude oil and natural gas liquids rose from 13.2 years to 14.3 years. The rise is not because of an increase in proven reserves, but rather because of reduced producing rates. Reserves in most provinces declined, the most notable reduction being in Alberta where year-end reserves were 413 million barrels less than in 1975. Alberta accounted for 6.8 million barrels of liquid hydrocarbon reserves or 87 percent of the national total.

Facilities for the marketing and transportation of liquefied natural gas (LNG) from reservoirs in the High Arctic are the subject of current studies by the consortium of Petro-Canada, Panarctic Oils Ltd. and The Alberta Gas Trunk Line Company Limited. Petro-Canada revealed recently that their preliminary studies should be completed by September and, based on those findings, more detailed evaluation and planning for pilot projects might evolve. The preliminary economic and engineering studies could lead to applications to the National Energy Board for authority to proceed to the pilot project stage. Tentative timing of the application is early next year. Knowledge gained from the LNG studies could be of prime importance to the Polar Gas Group for their application on a High Arctic natural gas pipeline to the National Energy Board which is scheduled to be filed before year-end.

TransCanada PipeLines Limited has filed an application with the National Energy Board to allow it to construct 39 miles of 42-inch pipeline in Saskatchewan and Manitoba at a cost of \$20 million. By completing the third loop in western Canada, capacity of the Trans-Canada system from Alberta to Winnipeg and the United States border at Emerson, Manitoba will be increased by 48 billion cubic feet annually or 4 percent. This program would enable the company to deliver additional gas to United States consumers later this year when emergency conditions are likely to prevail. The company's pipeline system which costs in excess of \$1.6 billion is capable of transporting 1 200 billion cubic feet annually.

Uranium

British Columbia's Ministry of Mines and Petroleum Resources is encouraging exploration efforts in the province, with specific emphasis on uranium. The province's royalty scheme, based on value of product, has been replaced by a profit-based tax of 17.5 percent together with liberal write off provisions for exploration and pre-production costs. The requirement for a production lease at the Minister's discretion has also been eliminated and the provincial government has restated its intention not to participate directly in exploration and production.

Energy Fuels Nuclear has commenced buying uranium ore at two buying stations it has established at Hanksville and Blanding, Utah. The company holds production rights on about 30 small operations and hopes to be buying at the rate of some 2 700 to 5 400 tonnes of ore a month by year-end. This will hopefully be augmented through exploration such that a mill of 1 400 to 1 800 tonnes per day can soon be justified.

Phillips Petroleum Company has announced plans to sink four 1,040-metre shafts to develop its uranium reserves north of the Ambrosia Lake district, New Mexico. The company hopes to be in production in the early 1980s at a rate of some 2 680 tonnes of ore a day.

For the second year, the Commission for the European Communities, under articles of the Euratom Treaty, is offering grants of between 30 and 70 percent of the cost of approved uranium exploration projects in the Community. Approved expenditures for the year total 5 million units of account, up from 1 million units of account in 1976.

Australia's Mary Kathleen Uranium Limited has asked its uranium customers for permission to extend delivery schedules by three years. Production has been adversely affected by a number of factors and the company will not be able to deliver as originally scheduled.

Union Carbide Corporation has reportedly obtained options covering large areas of uranium occurrences in the Karoo Sandstone of South Africa. The company is considering the possibility of commercial production in the area.

March 1977

SPECIAL ITEM

Third Session of the UNCTAD Intergovernmental Expert Group on Copper, Geneva, March 14-18, 1977

Summary

The third session of the UNCTAD Intergovernmental Expert Group on Copper (IEGC) was held in Geneva, March 14-18, 1977.

The purpose of this meeting was to prepare a report on the three meetings of the IEGC and to make recommendations for solutions of the problems of the world copper market for submission to the Preparatory Meeting on Copper to be held in May 1977.

Failure of the three sessions of the IEGC to reconcile opposing views on the best course of action to solve these problems is apparent in the report of the March meeting. The Conclusions and Recommendations outlined the two major proposals: negotiation of an international commodity agreement, and establishment of a consultative body. It was noted that further work was needed to resolve the disagreement, and it was suggested that this work could be carried out by further meetings at the "expert level" within UNCTAD.

This latter possibility makes prospects for the establishment of a Copper Consultative Organization (CCO) over the short-term less likely than appeared to be the case after the February 1977 meeting of the IEGC, and suggests that a protracted series of meetings with few, if any, concrete results may be the outcome.

The positive results of the first three IEGC meetings were the exposure to all delegations of the full complexities of the copper market, and the collection of a large number of useful studies on the international copper industry and markets.

Background

The IEGC was created at the UNCTAD Preparatory Meeting on Copper held in September 1976, to carry out an examination of the copper market and to make recommendations, not later than March 1977, for consideration by the next session of the Preparatory Meeting on Copper, to be held in May 1977.

March 1977

The first meeting of the IEGC was held in November 1976 when a list of study topics was agreed upon. Canada was chosen as a member of the IEGC "nucleus" charged with the responsibility of carrying out the work program of studies on agreed topics. Canada contributed six papers in advance of the second meeting, held in February 1977, of which five originated in the Mineral Development Sector (MDS) of the Department of Energy, Mines and Resources. This second meeting of the IEGC carried out two weeks of discussion and analysis of studies submitted.

Canada was a member of both drafting groups which prepared the final report of the IEGC at its third meeting. The Canadian delegation to this meeting was led by Dr. R.D. Hutchinson of MDS.

Proceedings of the March meeting

A "drafting group" was set up to review a document prepared by the UNCTAD Secretariat summing up discussion at the February 1977 meeting of the IEGC at which studies on the world copper market were analyzed. The drafting group consisted of Canada, Chile, Indonesia, Peru, Poland, Zambia and CIPEC, representing exporters, and Federal Republic of Germany, France, Japan, United Kingdom, United States, India and EEC, representing importers. The report produced by the drafting group was incorporated into the Conclusions and Recommendations of the IEGC to the May 1977 Preparatory Meeting.

A "contact group" consisting of Canada, Indonesia, Peru and Zaire as exporters, and India, Japan, United Kingdom and United States as importers framed the rest of the IEGC Conclusions and Recommendations. A change in the position of the United States between the February and March meetings was a major influence on the contact group. In contrast to its previous strong support for creation of a CCO, the United States avoided taking a definitive position on this issue and preserved all its options for the May Preparatory Meeting. Canada, at the invitation of the chairman, submitted a working paper to the contact group as a starting point for its work. This paper, which recommended creation of a CCO, was opposed by the United States and also by Peru. Peru had consistently opposed such a measure at all previous IEGC meetings.

Discussions in both the drafting group and the contact group clearly indicated that the basic differences of view, with some countries advocating a commodity agreement with a buffer stock, and others a CCO, were no closer to resolution than before the series of IEGC meetings began in September 1976.

The next Preparatory Meeting on Copper will be held in Geneva, May 16-20, 1977.

March 1977

RECENT MERGERS AND AMALGAMATIONS
(as recorded from the Gazettes)

Ranchmen's Resources (1976) Ltd. was formed by the amalgamation of Ranchmen's Minerals Ltd., Ranchmen's Development Ltd., Davoil Natural Resources Limited, Bluemount Resources Ltd. and Ark Explorations Limited on 4 January 1977. Source: Alberta Gazette, 15 February 1977.

NEW PUBLICATIONS

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

The Mineral Policy Series:
(F - also available in French)

- MR 147(F) Mining and Manpower: The Next Quarter Century
- MR 148(F) Iron Ore
- MR 149(F) Copper
- MR 150(F) Sulphur
- MR 151 Gypsum
- MR 152(F) Women In Mining: The Progress and the Problems
- MR 153 Transfer Pricing, The Multinational Enterprise and Economic Development
- MR 154(F) Mining Communities
- MR 155(F) Asbestos
- MR 156(F) Potash
- MR 157 Nickel
- MR 159 Zinc
- MR 160(F) Phosphate
- MR 164 Present and Projected Energy Consumption in the Mineral Industry In Canada
- MR 165 A Quick-Look Method for Monitoring the Adequacy of Metal Supplies from Canadian Mining for Domestic Needs.

The above publications are available from Publishing Center, Department of Supply and Services, Ottawa at \$2.00 a copy.

RW/GK/sa/mek

