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THE CANADIAN MINERAL INDUSTRY

MONTHLY REPORT

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THE CANADIAN MINERAL INDUSTRY

MONTHLY REPORT

Energy, Mines and Resources Canada

Énergie, Mines et Ressources Canada

Hon. Gerald S. Merrithew, Minister of State (Forestry and Mines)

L'Hon. Gerald S. Merrithew, Ministre d'État (Forêts et Mines)

PREFACE

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

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May 1987

THE CANADIAN MINERAL INDUSTRY FOR MAY

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

HIGHLIGHTS

1) The volume of production of lead and zinc increased 54.3 per cent and 45.3 per cent respectively in the first three months of 1987 compared with the first three months of 1986.

2) The Canadian steel industry operated at 76 per cent of capacity in April, down from the 80.9 per cent level of March.

3) Subject to shareholders' approval, the amalgamation of Placer Development Limited, Dome Mines, Limited and Campbell Red Lake Mines Limited was announced on May 6 with the new company to be known as Placer Dome Inc.

4) Production was resumed in May at Inco Limited's Cream Hill mine in Sudbury, Ontario after having been on standby since 1978.

5) Nickel prices on the London Metal Exchange reached $US 2.14 in mid-May, the highest level in several months.

6) Shell Canada Limited announced its intention to build a $40 million demonstration plant to process ultra sour gas near Bearberry, Alberta.

ECONOMIC TRENDS

Table 1 compares volume of production of Canada's leading minerals in February and March, 1986 and 1987 as well as the first three months of both years. Volume increased significantly in March, 1987 compared with the previous month for gold (27.4 per cent), molybdenum (51.7 per cent), nickel (26.7 per cent), clay products (32.4 per cent), potash (44.0 per cent) and cement (42.7 per cent).

Table 2 shows selected metal prices for February and March, 1987.

TABLE 1. CANADA, PRODUCTION OF LEADING MINERALS ('000 TONNES EXCEPT WHERE NOTED)

		1986			1987			Percentage Changes		
		February	March	Total 3 months	February	March	Total 3 months	March 1987 / March 1986	March 1987 / February 1987	1st 3 months 1987 / 1986
Metals										
Copper		61.3	69.6	190.9	59.1	67.7	186.3	-2.8	+14.6	-2.4
Gold	kg	7 696.7	8 442.2	23 797.0	8 000.4	10 189.6	26 245.3	+20.7	+27.4	+10.3
Iron ore		1 928.1	1 733.6	5 738.4	1 829.7	1 837.0	6 178.1	+6.0	+0.4	+7.7
Lead		20.9	17.7	54.9	31.9	32.2	84.7	+81.9	+0.9	+54.3
Molybdenum	t	1 101.6	1 099.6	3 030.7	912.1	1 384.1	3 196.5	+25.9	+51.7	+5.5
Nickel		15.7	16.9	48.5	16.1	20.4	53.9	+20.7	+26.7	+11.1
Silver	t	77.0	91.6	259.1	84.0	101.3	259.7	+10.6	+20.6	+0.2
Uranium[1]	t	508.8	1 064.5	2 399.3	1 050.7	1 243.9	3 682.0	+16.8	+18.4	+53.5
Zinc		65.0	75.1	200.7	102.5	115.6	291.6	+53.9	+12.8	+45.3
Nonmetals										
Asbestos		48.4	61.2	159.5	47.6	50.9	146.7	-16.8	+6.9	-8.0
Clay products	$000	8,031.8	11,374.7	26,675.4	10,376.5	13,734.8	35,031.7	+20.7	+32.4	+31.3
Gypsum		630.3	485.9	1 822.3	419.5	539.4	1 517.0	+11.0	+28.6	-16.8
Potash K_2O		539.1	699.1	1 713.1	597.8	860.7	2 064.8	+23.1	+44.0	+20.5
Cement		478.6	514.9	1 404.4	470.9	672.2	1 566.0	+30.5	+42.7	+11.5
Lime		171.1	182.6	534.1	168.8	189.2	552.8	+3.6	+12.1	+3.5
Salt		1 070.5	750.7	3 022.3	921.4	571.5	2 358.8	-23.9	-38.0	-22.0
Fuels										
Coal		4 658.9	5 068.4	15 323.6	4 580.7	..	..	..	..	..
Natural gas	million m^3	8 739.0	8 051.0	26 723.0	8 325.0	..	..	..	..	..
Crude oil and equivalent	000 m^3	6 704.0	7 179.0	21 776.0	7 098.0	..	..	..	..	..

[1] Tonnes uranium (1 tonne U = 1.2999 short tons U_3O_8).
.. Not available.

TABLE 2. METAL PRICES - 1987

	February	March
Copper		
Electrolytic, U.S. producer f.o.b. refinery, cents (U.S.)	64.125	66.671
Electrolytic, Comex, 1st pos. plus 5¢, cents (Cdn.)	89.013	90.462
Electrolytic, Standard, LME cash, cents (U.S.)	60.460	62.362
Lead		
New York, cents (U.S.)	26.000	26.000
Montreal, cents (Cdn.)	34.500	34.500
LME cash, cents (U.S.)	20.864	22.069
Silver		
New York, cents (U.S.) per troy oz.	548.763	568.159
Toronto, cents (Cdn.) per troy oz.	757.126	774.351
LME cash, cents (U.S.) per troy oz.	548.226	555.232
Zinc		
St. Louis, H.G., cents (U.S.)	38.379	37.703
Montreal, Electrolytic, cents (Cdn.)	51.000	50.200
LME cash, cents (U.S.)	33.556	33.158
Tin		
New York, Straits, cents (U.S.)	316.000	314.614
Metals Week, composite, cents (U.S.)	417.151	414.006
Gold		
London, p.m., $US per troy oz.	401.115	408.914
Average, (Sharps Pixley) $US per troy oz.	401.080	408.881
High, (Sharps Pixley) $US per troy oz.	406.750	424.000
Low, (Sharps Pixley) $US per troy oz.	390.000	403.800
Mercury		
$US per flask	208.105	239.773
Nickel		
Major Producer Cathode, cents (Cdn.)	426.843	422.148
Major Producer Cathode, cents (U.S.)	320.000	320.000
LME cash, $US	1.586	1.711
Antimony		
Domestic refined in alloy, cents (U.S.)	200.000	200.000
Platinum		
New York, refined, $US per troy oz.	600.000	600.000
Cadmium		
New York, producers, $US	1.350	1.250
Aluminum		
LME cash, cents (Cdn.)	77.653	81.815
LME cash, cents (U.S.)	58.216	62.018
Cobalt		
Shot/cathode/250 kg., $US	7.000	7.000
U.S. spot cathode, $US	6.163	6.150
Tungsten		
LMB ore, low, $US/MTU	39.000	46.600
GSA domestic, $US/STU	31.513	31.350
Molybdenum		
N.W. dealer oxide, $US	3.064	3.077
Uranium		
Nuexco, $US U_3O_8	16.750	16.750

Average U.S. Exchange Rate for February = 1.33388500, March = 1.31921364
Note: Prices are per pound unless otherwise stated.

METALLIC MINERALS AND PRODUCTS

Copper

Metal Prices U.S. cents/lb.

	London Metal Exchange (LME) Grade A May 1-29	Commodities Exchange, Inc. (Comex) 1st Position May 1-28
High	71.3	68.3
Low	66.8	62.8
Average	**68.9**	**66.5**
Year to Date Average	**65.2**	**62.9**

The decrease in prices on the LME ranged from 2.2 to 1.3 U.S. cents/lb. during the month. Between April 24 and May 22, the combined LME and Comex stocks decreased from 221 895 tonnes to 178 401 t.

Sherritt Gordon Mines Limited announced its intention to discontinue operations at its Ruttan mine at Leaf Rapids, Manitoba by mid-September 1987. The company was discussing the sale of the copper-zinc mine to Hudson Bay Mining and Smelting Co., Limited as an alternative to closure. The mine's operating cash flow loss for the first quarter of 1987 was $Cdn 137,000.

Bougainville Copper Limited completed negotiations with Japanese smelters for new sales contracts for its copper concentrates. The smelting and refining charges reportedly were $US 60/tonne of concentrate for smelting and U.S. 8 cents/lb. for refining. These terms will be renegotiated annually, commencing in mid-1988. Bougainville produced 41 664 t of copper in concentrates in the first quarter of 1987, compared with 43 989 t in the first quarter of 1986.

Concentrate shipments from the Ok Tedi mine in Papua, New Guinea are expected to commence in July 1987. The forecast production schedule for copper concentrates is:

1987 - 180 000 t
1988 - 400 000 t
1989-91 - 700 000 tpy
1992-93 - 530 000 tpy

Iron Ore

Labour contracts for the three largest Canadian iron ore mines expired on February 28th, 1987. Iron Ore Company of Canada (IOC) suffered a strike from March 23rd to April 27th but shipments from stockpiles continued without interruptions. Quebec Cartier Mining Company (QCM) settled without any work stoppage. Wabush Mines was out on strike from March 25th to May 25th and shipments were interrupted when stocks ran out in May.

Price negotiations for exported iron ore did not go well for Canadians in 1987. In the Japanese market, IOC accepted a 5.25 per cent price-cut for concentrates and in Europe, IOC and QCM took price cuts of 9.3 per cent. The one mitigating factor has been a 1.8 per cent increase in the price for IOC pellets in Europe. The price spread between pellets and concentrate has thereby returned to about 13 cents an iron unit.

Reported prices[1] on long-term contracts

	Japan		Europe	
	1986	1987	1986	1987
IOC concentrates	22.44	21.25	26.50	24.03
IOC pellets			36.50	37.15
QCM concentrates			26.50	24.03

[1] U.S. cents per iron ore unit f.o.b. St. Lawrence port.

Iron and Steel

The Canadian steel industry operated at 76.0 per cent of capacity in April, down from the 80.9 per cent level of March but still considerably higher than the February rate of 68.9 per cent.

The Canadian steel industry had a profitable first quarter. Higher sales were attributed to a general improvement in Canadian manufacturing industries, stockpiling because of fear of possible strikes of steel companies and a drop in the level of imported steel.

Statistics Canada data show that imports of "steel mill products" from all countries totalled 351 000 t in the first quarter of 1987 compared to 460 000 t in the same period of 1986. The total quantity for 1986 was 2 182 000 t. This drop in imports is partially attributed to the strengthening of other currencies relative to the Canadian dollar.

Labour negotiations are being concluded at The Algoma Steel Corporation, Limited. The United Steelworkers of America will vote on ratification of a tentative agreement which would freeze wages for one year but improve pension benefits. At Stelco Inc. early negotiations broke down as four of the fifteen Stelco plants voted to reject a tentative agreement negotiated between the company and the United Steelworkers of America in early-May.

Subsequently a tentative agreement was reached with three of the four plants that rejected the first agreement. A ratification vote is to be held on May 31.

The Canadian Government has approved legislation that will allow monitoring of imports and exports of steel. Permits will be required for exports and imports of steel so as to provide information about the origins and destination of steel crossing Canadian borders. The new program is expected to last for three years.

Molybdenum

Placer Development Limited announced on May 6, in a joint statement with Dome Mines, Limited and Campbell Red Lake Mines Limited, that the three companies planned to amalgamate, subject to shareholders' approval in meetings to be held in July. The new company, to be known as Placer Dome Inc., is to be formed through tax free conversion of shares. The amalgamation would make Placer Dome the largest North American gold mining company. The company is also a significant producer of silver, copper, molybdenum, and gas.

For molybdenum, Placer Development is expected to produce about 7 million pounds of contained metal in 1987, up from the 5 million pound level in 1986. The 1987 output represents about half of the mine capacity at Endako. Additionally, the company will produce another 1 million pounds of molybdenum as a by-product from its Gibraltar copper mine.

Placer has become more aggressive in the molybdenum market since it re-opened the Endako mine in August 1986. The mine was closed for four years and the company had been selling from inventories. Out of the 1987 production, Placer expects to sell about half of the output on the Japanese market.

Molybdenum prices slipped below the $US 3.00 per pound mark in the dealers' market due to sagging demand and excess supply. Producers prices too were reduced. Both Cyprus Minerals Company and AMAX Inc. lowered their prices by 20 cents (U.S.) to $US 3.25 per pound of molybdic oxide, while maintaining earlier prices for briquettes and ferromolybdenum.

Nickel

Inco Limited resumed production in May from its Cream Hill mine in Sudbury, Ontario. The mine had been on standby since 1978. In the fall of 1986, Inco started to modernize the mine by installing new equipment and converting the mine to bulk mining. The mine is now all-electric which provides for a cleaner and quieter working environment. Initial output is about 300 tpd and is expected to increase to 3 000 t by January 1988. Output is expected to be about 24 t per manshift compared to about 8 t when the mine last operated.

In Indonesia, P.T. Aneka Tambang is reported to have closed its ferronickel furnace on May 8 for repairs. The repairs were expected to take four months but could be longer due to delays associated with acquiring certain components.

In Zimbabwe, Bindura Nickel Corp. Ltd., after losing $Z 16.9 ($Cdn 13.7) million in 1986, was reported to have commenced negotiations with the government for additional financing. Bindura operates a low-grade nickel mine and processing complex in northern Zimbabwe.

Nickel prices started the month at $US 1.87 on the London Metal Exchange and then moved a week later to $2.14, the highest level in several months. By the end of the month, the price had fallen back to $1.93. Market fundamentals have improved since the beginning of the year and the price has risen from January's average price of $1.60. Consumption, particularly from the stainless steel sector, appears somewhat stronger than last year. On the supply side, Soviet exports to the western world are lower than last year and there is a reduced availability of stainless steel scrap.

Tungsten

While investigations continue in the European Community (EC) to establish a legal basis for the initiation of anti-dumping action against the PRC' for selling tungsten products at low prices, the U.S. Department of Industry, Trade and Commerce has ruled affirmatively on their industries claims, that the PRC is dumping tungsten on U.S. markets. (Ammonium paratungstate and tungsten acid).

The decision taken by ITC on May 22 is expected to result in a recommendation to the President by June 5. The ITC ruling calls for the establishment of quotas on imports of APT and tungsten acid from the PRC. The quotas call for a maximum quantity of imports of APT and tungsten acid from the PRC not to exceed 7.5 per cent of the U.S. markets, for a period of three years.

The ITC ruling follows the 406 trade litigation launched by the Refractory Metals Association (RMA) in 1986 on behalf of the U.S. tungsten producers, alledging that the PRC producers were dumping APT and tungstic acid on U.S. markets.

The complaint was initiated by the RMA as a result of increasing imports of APT from the PRC. In 1983, imports increased by 2 per cent compared to 1982. In 1986, imports increased to 17 per cent compared to 3 per cent in 1983.

INDUSTRIAL MINERALS AND PRODUCTS

Fluorspar

During April 1987, Minworth Ltd. of London, England, commissioned its fluorspar operation at St. Lawrence, Newfoundland. The 500 tpd processing plant will produce acid grade fluorspar, 93 per cent to 97 per cent CaF_2 with less than 0.01 of SiO_2 and $CaCO_3$. The operation, which was put on-stream in mid-February for a trial run, should reach an operating level by early-June 1987.

Current employment is about 25 employees but should reach 50, and close to 100 when at full production in the medium-term.

Acid spar grades are expected to be marketed mainly in North America, while some trial shipments will be directed to western Europe. In 1986, Canada imported 164 114 t of fluorspar, valued at $22.7 million. Imports were from Mexico (53 per cent), Spain (17 per cent) and the United States (6 per cent).

Graphite

Cal Graphite Corporation has awarded a $260,000 engineering contract to Geocon Inc. of Mississauga, Ontario, who will design a mill site, all-weather road and a tailing's disposal area on a 40 hectare property held by Cal Graphite near Huntsville, Ontario.

Cal Graphite intends to bring an open-pit mine into production there at a rate of 3 000 tpd of ore by 1989. The deposit has ore reserves totalling 29.5 million t at an average grade of 4 per cent graphite. At this rate of production, mining would last approximatly 30-34 years.

Sulphur

Texaco Canada Inc. announced its intention to join Cansulex Limited which now has 22 members. Cansulex is the Canadian Sulphur Export Corporation that supports and promotes the sales of Canadian dry elemental sulphur to offshore export markets. Texaco Canada Inc. operates sour natural gas wells at Bonnie Glen, Alberta, and extracts elemental sulphur from its oil refinery at Nanticoke, Ontario.

Shell Canada Limited announced its intention to build a $40 million demonstration plant to process ultra sour gas near Bearberry, Alberta. The project will be a first worldwide experiment to process sour gas with 90 per cent hydrogen sulphur content. The new technology involves the use of solvent oil to dissolve any elemental sulphur build-up within the wells, and the recovery of dissolved sulphur. The sulphur will be from the ultra sour gas which will be drawn from two producing wells at Bearberry. Plant construction is scheduled to start in early-1988 and due for completion during 1990. The processing plant will have a design capacity of 200 tpd of sulphur. Nearly 150 jobs will be created at the peak of the construction period. Depending on the feasibility and the result of the five-year project, a commercial operation might be put on-stream at the end of 1990, resulting in the creation of 25 permanent jobs.

SPECIAL ITEM

London Metal Exchange

The London Metal Exchange on May 29 introduced a clearing house system in response to new regulations by the U.K. Securities Investment Board resulting from the 1985 tin crisis. The exchange has operated for some 110 years on a principal-to-principal system, relying on trust, honour and internal monitoring. It is the last of the world metal exchanges to change to a clearing system.

The LME is the world's largest market in lead, zinc, copper and aluminum and also trades in nickel and silver. All trades will now be guaranteed by the International Commodities Clearing House (ICCH). All existing 21 LME ring-dealing firms became Clearing Members and, as their clients have the option to join, 14 clients have also become members.

Other historic changes were the introduction of 12 new monthly delivery dates in addition to the longstanding prompt and three month contracts, and the option of trading in U.S. dollars in addition to Sterling. The LME also introduced a new, high-grade aluminum contract denominated in U.S. dollars and including Singapore as a delivery point in addition to LME warehouses in Europe. A dollar-based silver contract is to follow.

The new clearing system should substantially reduce the risk of bankruptcy for member firms and consequent losses to clients. However, it will add to trading costs due to the clearing house fee (18½ pence per lot) and new margin requirements.

SPECIAL ITEM

ANNOUNCEMENT

"Leobener Bergmannstag 1987" ("Leoben Mining Conference 1987") from Tuesday, September 22nd to Saturday, September 26th

The Leobener Bergmannstag 1987 follows earlier mining conferences of this kind which have taken place every 25 years. They were held in Vienna in 1912 and in Leoben in 1937 and 1962.

The theme of the conference is:

"Mining: structural changes in the requirements of economics, environment and technology - tendencies in research, development and operation"

The conference activities include:

I. Exhibitions (22. - 26.9.1987)

II. Main Conference with scientific and social activities (23. - 26.9.1987)

III. Excursions in Austria (28. - 30.9.1987)

Planned lecture groups:

ARTICLE SPÉCIAL

ANNONCE

Conférence sur les mines de Leobener (Leobener Bergmannstag) 1987 du mardi 22 septembre au samedi 26 septembre

Le Leobener Bergmannstag 1987 fait suite à d'autres conférences sur les mines qui ont lieu à tous les 25 ans. Les autres conférences se sont tenues à Vienne en 1912 et à Leoben en 1937 et en 1962.

Cette conférence a pour thème:

"L'industrie minière: modifications structurelles des exigences en matière d'économie, d'environnement et de technologie - tendances de la recherche, du développement et de l'exploitation"

Les activités comprennent:

I. Des expositions (du 22 au 26 sept. 1987)

II. Des conférences et des activités scientifiques et sociales (du 23 au 26 sept. 1987)

III. Des excursions en Autriche (du 28 au 30 sept. 1987)

Conférences prévues:

Section 1: Mining of solid raw materials

- Prospection and exploration of deposits
- Deposit evaluation and mineral economics
- Rock mechanics and technology for opening and development
- Basic processes in mining technology and mining machinery
- Underground mining technology
- Open-pit mining technology
- Mineral processing
- Mine surveying
- Mining and the environment
- Mining and the economy

Section 2: Mining of hydrocarbons

- Petroleum and natural gas exploitation

Please refer all questions and comments to the Sekretariat of the

"LEOBENER BERGMANNSTAG",
Montanuniversität Leoben,
Franz-Josef-Strasse 18, A-8700
Leoben, AUSTRIA,
Tel.: (03842)45 2 79, Telex. 33322

Première partie: Extraction des matières brutes solides

- Prospection des gisements
- Évaluation des gisements et données économiques sur les minéraux
- Mécanique des roches et technologie d'aménagement et de mise en valeur
- Procédés de base de la technologie minière et de la machinerie d'extraction
- Technologie d'exploitation des mines souterraines
- Technologie d'exploitation des mines à ciel ouvert
- Traitement des minerais
- Levés miniers
- L'extraction minière et l'environnement
- L'extraction minière et l'économie

Deuxième partie: Extraction des hydrocarbures

- Exploitation du pétrole et du gaz naturel

Veuillez faire part de toutes questions ou commentaires au secrétariat du

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