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The Canadian Mineral Industry Monthly Report

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Énergie, Mines et
Ressources Canada

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

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THE CANADIAN MINERAL INDUSTRY FOR APRIL

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

HIGHLIGHTS

1. Canada's unadjusted index of Real Domestic Product was 133.1 in February 1979, an increase of 4.8 per cent from January 1979.
2. The February index for Mines, Quarries and Oil Wells was 111.3, an increase of 7.3 per cent from the previous month.
3. The monthly average gold price for April, 1979 of the afternoon fixing prices on the London Gold Market was \$239.16 (U.S.) (\$274.15 Cdn.) compared with \$242.09 (U.S.) (284.19 Cdn.) an ounce of gold for March.
4. Canadian production of primary copper in the first two months of 1979 was 92 261 tonnes compared with 119 743 tonnes in the same period of 1978.
5. Amalgamated Metal Corporation Ltd. predicts that the lead market is likely to continue in deficit supply in 1979 despite a rise in mine production.
6. Teck Corporation has announced that development of the Highmont B.C. copper-molybdenum property will begin in May.
7. Nickel producers increased the prices of their nickel products by 25 cents a pound in early April.
8. The Quebec Government decided on May 2, 1979 to proceed with debate on **Bill 121** to expropriate some of the assets of Asbestos Corporation Limited (ACL), of Montreal.
9. Canadian Occidental Petroleum Ltd. and Inco Metals Company have reportedly made a promising uranium discovery 11 kilometers northwest of Rabbit Lake, Saskatchewan.

ECONOMIC TRENDS

Table 1 shows Canada's unadjusted indexes of Real Domestic Product in terms of 1971=100. The overall RDP index increased 4.8 per cent in February compared with January 1979.

The February index for mines, quarries and oil wells was 111.3, up 7.3 per cent from 103.7 in January. The metal mines, mineral fuels and non-metal mines indexes increased by 9.4 per cent, 6.5 per cent and 9.5 per cent respectively during the month. Asbestos mines showed a 19.5 per cent increase moving from 75.3 in January to 90.0 in February.

The February indexes for primary metal industries and non-metallic mineral products industries were 5.4 per cent and 20.7 per cent above those of January.

Table 2 compares volume of production in major Canadian minerals. Output increased significantly in February compared with January for molybdenum (13.5 per cent) and gypsum (16.7 per cent). Substantial decreases were recorded in iron ore (30.1 per cent), silver (15.3 per cent), uranium (38.1 per cent) and potash (20.7 per cent).

Tables 3 and 4 show capital and repair expenditures from 1977 to 1979 for mines, quarries and oil wells. Table 3 records expenditures on construction and machinery and equipment by region. The total for Canada in 1977 was \$5,178.2 million. Table 4 shows a break-down by metal mines, non-metal mines and mineral fuels.

TABLE 1

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

Industry or Industry Group	1978			1979			Percentage Changes			
	Jan	Feb	Average 1st 2 Months	Jan	Feb	Average 1st 2 Months	Jan 1979	Feb 1979	Feb 1979	1st 2
							-----	-----	-----	Months
							Jan 1978	Feb 1978	Jan 1979	1979 1978
Real Domestic Product	120.5	128.1	124.3	127.0	133.1	130.0	5.4	3.9	4.8	4.6
Primary Industries										
Agriculture	44.3	46.4	45.3	50.3	48.3	49.3	13.5	4.1	-4.0	8.7
Forestry	89.5	124.2	106.8	112.9	128.1	120.5	26.1	3.1	13.5	12.8
Fishing and Trapping	29.4	45.0	37.2	28.9	34.4	31.6	-1.7	-23.6	19.0	-14.9
Mines, Quarries and Oil Wells	103.5	110.8	107.1	103.7	111.3	107.5	0.2	0.5	7.3	0.3
Metal Mines	93.2	102.8	98.0	78.8	86.2	82.5	-15.5	-16.1	9.4	-15.8
Placer and Gold Quartz Mines	69.3	74.9	72.1	65.0	67.0	66.0	-6.2	-10.5	3.1	-8.5
Iron Mines	101.8	109.8	105.8	103.3	118.6	110.9	1.5	8.0	14.8	4.9
Other Metal Mines	92.2	102.4	97.3	73.5	79.1	76.3	-20.3	-22.8	7.6	-21.6
Mineral Fuels	110.6	116.6	113.6	124.2	132.3	128.2	12.3	13.5	6.5	12.9
Coal Mines	182.6	236.4	209.5	238.7	239.8	239.2	30.7	1.4	0.5	14.2
Crude Petroleum and Natural Gas	104.7	106.8	105.7	114.8	123.5	119.1	9.6	15.6	7.6	12.7
Nonmetal Mines	116.9	122.1	119.5	120.5	132.0	126.3	3.1	8.1	9.5	5.6
Asbestos Mines	74.2	87.6	80.9	75.3	90.0	82.6	1.5	2.7	19.5	2.2
Secondary Industries										
Manufacturing	115.3	131.0	123.1	130.1	145.0	137.5	12.8	10.7	11.5	11.7
Nondurable Manufacturing	115.8	131.1	123.4	127.7	141.7	134.7	10.3	8.1	11.0	9.1
Petroleum and Coal Products Industries	135.9	136.6	136.2	143.2	137.4	140.3	5.4	0.6	-4.1	3.0
Durable Manufacturing	114.9	131.0	122.9	132.5	148.3	140.4	15.3	13.2	11.9	14.2
Primary Metal Industries	116.3	129.5	122.9	127.3	134.2	130.7	9.5	3.6	5.4	6.4
Iron and Steel Mills	119.7	140.1	129.9	147.7	153.8	150.7	23.4	9.8	4.1	16.1
Steel Pipe and Tube Mills	121.9	142.6	132.2	136.2	144.5	140.3	11.7	1.3	6.1	6.1
Iron Foundries	117.5	139.4	128.4	118.1	141.4	129.7	0.5	1.4	19.7	1.0
Smelting and Refining	107.9	106.5	107.2	94.9	96.4	95.6	-12.0	-9.5	1.6	-10.8
Nonmetallic Mineral Products Industries	92.5	109.2	100.8	112.8	136.2	124.5	21.9	24.7	20.7	23.5
Cement Manufacturers	55.2	66.2	60.7	69.4	96.1	82.7	25.7	45.2	38.5	36.3
Ready-mix Concrete Manufacturers	51.0	71.2	61.1	63.8	86.1	74.9	25.1	20.9	35.0	22.7
Construction Industry	90.1	96.2	93.1	85.5	88.4	86.9	-5.1	-8.1	3.4	-6.7
Transportation, Storage, Communication	130.2	135.1	132.6	137.2	139.9	138.5	5.4	3.6	2.0	4.4
Electric Power, Gas and Water Utilities	194.6	195.2	194.9	200.1	203.5	201.8	2.8	4.3	1.7	3.5
Trade	113.5	126.8	120.1	118.2	130.1	124.1	4.1	2.6	10.1	3.3
Finance, Insurance, Real Estate	144.4	147.1	145.7	151.3	153.2	152.2	4.8	4.1	1.3	4.5
Community, Business and Personal Service	130.7	133.6	132.1	135.1	136.5	135.8	3.4	2.2	1.0	2.8
Public Administration and Defence	121.6	122.5	122.0	121.7	121.8	121.7	0.1	-0.6	0.1	-0.2

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

		1978			1979			Percentage Changes		
		January	February	Total 2 months	January	February	Total 2 months	February 79 February 78	February 79 January 79	1st 2 months 1979 1978
Metals										
Copper		56.2	63.5 ^r	119.7 ^r	44.5 ^r	47.8	92.3	-24.7	+ 7.4	-22.9
Gold	kg	4 104.3	4 081.0	8 185.3	4 050.7 ^r	3 755.9	7 806.6	- 8.0	- 7.3	- 4.6
Iron ore		1 870.4	1 341.8	3 212.2	2 297.8	1 606.7	3 904.5	+19.7	-30.1	+21.6
Lead		21.7	27.2	48.9	25.5 ^r	26.6	52.1	- 2.2	+ 4.3	+ 6.5
Molybdenum	t	1 360.7	1 114.2 ^r	2 474.9 ^r	1 101.1	1 249.8	2 350.9	+12.2	+13.5	- 5.0
Nickel		16.1	13.6	29.7	6.3	5.8	12.1	-57.4	- 7.9	-59.3
Silver	t	100.4	107.3	207.7	110.3 ^r	93.4	203.8	-13.0	-15.3	- 1.9
Uranium (1)	t	466.2	489.5	955.7	478.3	296.1	774.3	-39.5	-38.1	-19.0
Zinc		72.9	62.0	134.9	87.4	87.8	175.3	+41.6	+ 0.5	+30.0
Nonmetals										
Asbestos		86.6	97.3 ^r	183.9 ^r	108.4	109.3	217.7	+12.3	+ 0.8	+18.4
Gypsum		353.1	409.4	762.5	381.3	444.8	826.1	+ 8.7	+16.7	+ 8.3
Potash K ₂ O		503.5	491.4	994.9	539.5	427.9	967.4	-12.9	-20.7	- 2.8
Salt		674.7	694.3	1 369.0	717.8	710.6	1 428.3	+ 2.4	- 1.0	+ 4.3
Cement		319.6	414.6	734.2	359.5	387.0	746.6	- 6.7	+ 7.7	+ 1.7
Lime		143.3	147.9	291.2
Fuels										
Coal		2 490.8	2 634.1	5 124.8	2 879.2 ^r	2 513.7	5 392.9	- 4.6	-12.7	+ 5.2
Natural gas	million m ³	8 904.3 ^r	7 720.2 ^r	16 624.5 ^r	9 468.7 ^r	8 601.6	18 070.3	+11.4	- 9.2	+ 8.7
Crude oil and equivalent	000 m ³	6 718.0	6 314.0	13 032.0 ^r	7 419.0 ^r	7 433.0	14 852.0	+17.7	+ 0.2	+14.0

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

TABLE 3

Canada, Capital and Repair Expenditures - Mining, Quarrying and Oil Wells, 1977-79¹

		Construction	Machinery and Equipment (millions of dollars)	Total
Atlantic Region	1977	80.7	174.3	255.0
	1978	125.4	155.6	281.0
	1979	251.1	184.2	435.3
Quebec	1977	339.0	396.6	735.6
	1978	181.7	248.8	430.5
	1979	225.1	267.2	492.3
Ontario	1977	225.7	294.2	519.9
	1978	180.3	226.1	406.4
	1979	206.4	227.4	433.8
Prairie Region	1977	1,955.8	767.6	2,723.4
	1978	2,319.6	648.1	2,967.7
	1979	2,626.5	626.8	3,253.3
British Columbia	1977	307.9	231.7	539.6
	1978	394.2	249.1	643.3
	1979	520.1	276.1	796.2
Northwest Territories and Yukon	1977	332.7	72.0	404.7
	1978	233.2	96.3	329.5
	1979	248.6	125.2	373.8
Canada	1977	3,241.8	1,936.4	5,178.2
	1978	3,434.4	1,624.0	5,058.4
	1979	4,077.8	1,706.9	5,784.7

¹ 1977 Actual, 1978 Preliminary actual, 1979 Intentions.

TABLE 4

Canada, Capital and Repair Expenditures - Mining Quarrying and Oil Wells 1977-79¹

	<u>Capital Expenditures</u>			<u>Repair Expenditures</u>			<u>Capital and Repair</u>		
	1977	1978	1979	1977	1978	1979	1977	1978	1979
(millions of dollars)									
Metal mines									
Gold	24.8	32.1	39.1	13.8	15.5	15.6	38.6	47.6	54.7
Iron	450.9	152.2	165.5	243.9	203.1	243.3	694.8	355.3	408.8
Copper-gold-silver	181.9	136.3	172.5	150.6	161.7	171.6	332.5	298.0	344.1
Silver-lead-zinc	77.0	71.6	84.9	38.1	42.4	47.0	115.1	114.0	131.9
Other metal mines	244.2	209.2	245.7	153.4	92.5	106.4	397.6	301.7	352.1
Total metal mines	978.8	601.4	707.7	599.8	515.2	583.9	1,578.6	1,116.6	1,291.6
Nonmetal mines									
Asbestos	103.7	97.1	107.2	80.6	96.1	101.9	184.3	193.2	209.1
Other nonmetal mines ²	336.9	345.9	286.9	213.4	214.8	230.4	550.3	560.7	517.3
Total nonmetal mines	440.6	443.0	394.1	294.0	310.9	332.3	734.6	753.9	726.4
Mineral fuels									
Petroleum and gas	2,445.5	2,747.8	3,304.2	419.5	440.1	462.5	2,865.0	3,187.9	3,766.7
Total mining industry	3,864.9	3,792.2	4,406.0	1,313.3	1,266.2	1,378.7	5,178.2	5,058.4	5,784.7

¹ 1977 Actual, 1978 Preliminary actual, 1979 Intentions; ² Includes coal mines, gypsum, salt, potash and miscellaneous nonmetal mines and quarrying

TAXATION AND LEGISLATION AFFECTING THE MINERAL AND ALLIED INDUSTRIES IN CANADA

Federal

Canada Mining Regulations, SOR/77-900 have been amended by SOR/79-234. Although the amendments are numerous, there are no major changes in the regulations. In general, the changes only serve to clarify the meaning of the sections affected.

Provincial

Alberta

The Exploratory Drilling Incentive Regulations being regulations AR378/72, AR18/74 and AR27/78 have been amended by regulations AR76/79, AR81/79 and AR82/79 respectively. The amendments permit any credit held in the Departmental records under section 10 or 11 in the name of a licensee or participant who has ceased to carry on exploration for or development and production of petroleum or natural gas in Alberta, to be transferred to any other persons, if satisfactory evidence is provided that the other person has acquired all the agreements of the licensee.

The Geophysical Incentive Program Regulations being AR26/59 as amended, and AR35/75, have been similarly amended by AR84/79 and AR83/79 respectively.

Ontario

The recent **Ontario Budget** will provide some reductions in the Mining Tax.

1. The two highest marginal tax rates of 35 per cent and 40 per cent will be removed.
2. The exemption from the mining tax will be increased from the first \$100,000 to the first \$250,000 of mining profits.

In addition, the processing allowance rate will be reduced from 30 per cent to 25 per cent of the original capital cost of processing assets where ore is treated to the refining stage in Northern Ontario.

And the processing allowance rate will be reduced from 35 per cent to 30 per cent of the original capital cost of processing assets where further processing is carried out in Northern Ontario.

The above changes will apply with respect to fiscal years of companies ending after April 10, 1979.

Quebec

The recent Quebec Budget made some reductions in the Mining Duties imposed.

The exemption from mining duties was increased from the first \$150,000 to the first \$250,000 of mining profits.

On-property exploration and development expenditures after production is achieved will now earn depletion at the rate of \$1 for every \$3 spent, except in the case of iron, titanium and asbestos mines and open pit operations.

The two-year period for loss carry forward has been increased to four years.

REGIONAL PROFILES

YUKON TERRITORY

The Yukon economy depends upon mining, which accounted for about 40 per cent of the Territory's total production of goods and services in 1978. The per capita value of mineral production for the year was \$9,689. One mine closed and another, Whitehorse Copper Mines Ltd., announced that its remaining reserves assured only three more years of operation. Nonetheless, the future of Yukon's mineral industry is guaranteed by recent discoveries, mainly in the southeast, which is now one of the world's major zinc provinces.

It has been estimated that, by the early 1980's, there will be six potential mines developed to the point where production decisions can be made. Fifty million dollars will have been spent on these properties, and a further \$500 million would be required to achieve production. They would require an additional 60 to 80 megawatts of electrical energy, not presently available in the Yukon.

Principal Minerals Produced

Commodity	Value of 1978 Production \$000's	Change 1977-78 (per cent)	Proportion of Canada (per cent)
Copper	18,066	101.8	1.7
Gold	7,354	58.0	2.0
Lead	65,466	37.5	26.2
Silver	29,405	45.9	12.3
Zinc	75,481	-6.3	9.5
Asbestos	32,404	-31.8	5.4
TOTALS			
Metallics	195,772	20.9	3.6
Non-Metallics	32,404	-31.8	2.1
ALL MINERALS	228,176	8.8	1.2

N.B. There is also a modest production of natural gas and coal.

Socio-Economic Indicators - 1978

	Amount	Change Over Previous Year (per cent)	Proportion of Canada (per cent)
Population, June 1978	23,550	7.9 ^e	0.10
Labour Force, 1978 est.	11,700	10.4	0.10
Employment, 1978 est.	9,400	6.8	0.12
Unemployment, 1978 est.	2,300	27.8	0.30
Employed in mining*, Oct. 1978	1,203	-9.0	6.5
Average Weekly Wages in mining and milling, 1978 est.	\$367.57	1.3	138

* Slightly distorted ratios since Yukon number is for all minesite employees, while Canadian number is for wage-earners only, in firms of 20 or more employees.

^e Estimated.

MINE DEVELOPMENTS

1. At United Keno Hill Mines Limited, production will soon be started from open-pit zones, which are expected to provide an increasing share of mill feed. The mill circuit has been expanded with a cyanide extraction unit to improve recovery from the lower-grade open-pit ore.
2. Despite extensive exploration programs along the Whitehorse copper belt over the past several years, Whitehorse Copper Mines has not added appreciably to its ore reserves. It now looks as though the mine will have exhausted its presently known ore by mid-1981.
3. An example of the importance of non-renewable resources to the Canadian Territories is shown by the record of the recently closed Clinton Creek Mine of Cassiar Asbestos Corporation Limited. While in production only 10 years, this mine produced asbestos fibre with a total export value of \$275 million. Exact figures in constant dollars are not available, but some concept of the operation's dollar turnover may be seen in the following statistics (approximations in current dollars):

Pre-Production Costs	\$9.2 million
Plant and Equipment	\$23.6 million
Mining Equipment	\$3.7 million
10-Year Yukon-based Payroll	\$63.4 million
Mining and Transportation	\$134.6 million

At its peak the mine employed 331 persons.

4. The main development in the affairs of Cyprus Anvil Mining Corporation in recent months was the announcement that the company had negotiated the takeover of the Faro area properties of Kerr Addison Mines Limited and Canadian Natural Resources Limited at a cost of \$22 million. Five lead-zinc deposits have been discovered on these properties, three of which have a total indicated reserve of approximately 40 million tonnes. Together with the Cyprus Anvil reserves of 40 million tonnes, these acquisitions would assure that company of a supply of zinc concentrates sufficient to justify a smelter for the Yukon, if economic conditions become favourable for such a development. Final approval for this transfer of resources must be made by the Foreign Investment Review Agency.
5. Placer mining in the Yukon has been stimulated by the high price levels for gold in recent years. All of the activity is in the west-central part of the Territory, where most of the known potentially valuable ground has been taken up as placer claims or prospecting leases. Total production is impossible to assess because only gold exported from the Territory must be declared for royalty purposes. In 1978, approximately 30,000 ounces were declared, but total production would be considerably more. As an off-shoot of gold recovery, some placer mining is now being done for tin and tungsten minerals.

A new placer mining method developed in the Yukon may re-activate many old placer sites. The process involves a simple sorting of gold-bearing gravels prior to the "sluice-box" recovery stage. It is reputed to have quadrupled recovery ratios.

EXPLORATION DEVELOPMENTS

1. In 1978, approximately 100 companies had exploration projects in the Yukon Territory. The estimated expenditures were \$18 million, about the same amount estimated for 1977. There has been a very rapid increase in the search for uranium, tin, tungsten, molybdenum and gold.
2. Work on the zinc-lead deposits at Howard's Pass by Placer Development Limited has continued, aimed at underground development for exploration and bulk sampling purposes on the south zone of the company's extensive property. Other promising zones have been discovered, with indicated tonnages that place the Howard's Pass deposits in a "world class" category.
3. In central Yukon, limited drilling on coal properties in 1978 has revealed a potential for vast quantities of thermal coal in two seams totalling 15 meters in thickness. Open pit recovery appears feasible. Discussions about a major thermal energy plant, based on these deposits, may be possible when the 1979 exploration program is completed. The company holding the coal leases is reported to have a very promising uranium deposit in the nearby Quartet-Fairchild's Lakes area.

OTHER INDUSTRIES

One proposed project mentioned frequently during the past two years is the building of an aluminum smelter near Whitehorse. Kaiser Aluminum & Chemical Corporation held public hearings in 1977, in which the elements of the proposal were revealed:

- (a) A new dam would be built on the Yukon River to provide the necessary hydro-electric power, estimated to be 300 to 350 megawatts.
- (b) Construction of a dam and smelter would require seven years, employing 1,500 workers.
- (c) The completed smelter would process aluminum oxide shipped by rail from the port of Skagway.
- (d) Permanent employment would total 1,182 workers, with a production of 162,000 metric tons of aluminum annually.
- (e) The major environmental concern would be the emission of fluoride-bearing gas, for which adequate controls are available.

Further discussions between representatives of the Yukon Territorial Government and Kaiser Aluminum were held early in 1979.

FEDERAL-TERRITORIAL AGREEMENT

Late in 1978, the federal Department of Regional Economic Expansion and the Yukon Territorial government signed an agreement whereby they would jointly invest \$11 million over a three-year period to improve the economic opportunities in the Territory. A four element program would be administered by the Territorial government and would:

- (a) Set up a collection and retrieval system for resource data.
- (b) Arrange for systematic planning in renewable resource conservation and usage.
- (c) Improve and expand tourist and recreation facilities.
- (d) Train and create employment for Yukoners in need of such assistance.

While it could not be expected that the mining industry would receive direct benefits from such a program until the data system becomes operative, there is no doubt that any stimulant to the Yukon economy will have ultimate benefits for all who work there.

TRANSPORTATION

With the closing of the Clinton Creek Mine and the loss of its haulage business with Cassiar Mine, the White Pass and Yukon Railway is faced with serious deficits. A recent appeal to the federal government for financial assistance, which would subsidize operational costs and underwrite necessary capital improvements, has been refused, partly because the long-range outlook for the railway is very good. Government feels that, unless the Canadian Transport Commission should recommend federal funding at some later date, there are other avenues through which the company might seek assistance over a few lean years it appears to be facing. The 110-mile railway has been a major asset in the Yukon economy since the gold rush era. Anticipated developments in the early 1980's will certainly benefit the railway to an unprecedented degree.

LAND CLAIMS

The Council of Yukon Indians, which represents all native associations within the Yukon Territory, presented their newly composed land claim to the Minister for the Department of Indian Affairs and Northern Development on January 20, 1979. Negotiations were commenced in February.

REGIONAL PROFILES

NORTHWEST TERRITORIES

Mining is the backbone of the economy in the Northwest Territories. The total value of mineral production in 1978 was an estimated \$308 million, roughly one-half the total production of goods and services. The per capita value of mineral production for the year was \$7,623, compared to a Canadian figure of \$837. Since virtually all production is in metals, a better comparison can be made with the Canadian figure in this category, which is \$235 per capita.

Five major mines were in production in 1978, along with four smaller ones at Great Bear Lake where the chief product is silver. The Northwest Territories is Canada's only producer of tungsten and is among Canada's leaders in the production of zinc (second in 1978) and gold (third in 1978).

While the total tons milled in 1978 declined by five per cent from the 1977 figure, the value of production increased by over 20 per cent.

Principal Minerals Produced

Commodity	Value of 1978 Production* \$000's	Change 1977-78 (per cent)	Proportion of Canada (per cent)
Cadmium	1,169	-16.0	n.a.
Copper	520	16.6	0.1
Gold	44,545	42.2	11.9
Lead	56,884	39.3	22.7
Silver	24,192	29.3	10.1
Tungsten	41,351	6.6	100.0
Zinc	148,786	18.9	18.8
Natural Gas	27,235	-22.0	0.6
Crude Petroleum	5,610	30.7	0.1
<u>TOTALS</u>			
Metals	317,447	27.0	5.6
Fuels	32,845	-16.0	0.3
ALL MINERALS	350,292	20.4	1.6

* Preliminary figures.

n.a. Not available.

Socio-Economic Indicators, 1978

	Amount	Change Over Previous Year (per cent)	Proportion of Canada (per cent)
Population, June 1978	45,950	7.8	0.20
Labour Force, 1978 est.	17,400	6.1	0.16
Employment, 1978 est.	12,000	0	0.12
Unemployment, 1978 est.	5,400	22.7	0.68
Employed in mining*, Oct. 1978	1,767	6.3	9.6
Average weekly wages in mining and milling, 1978 est.	323.96	-1.1	122

* Slightly distorted ratios, since NWT number is for all minesite employees, while Canadian number is for wage-earners only, in firms of 20 or more employees.

MINE DEVELOPMENTS

1. The expansion program at Canada Tungsten Mining Corporation Limited begun in June 1977, will be completed on schedule in July 1979. The milling capacity has been doubled to 1,000 tons per day. The program has included improvements to other minesite installations and to the townsite as well. Two new diesel power units have been put into service, relegating the previous power plant to standby basis. The company has been drilling at the minesite for a geothermal energy source, so far without success, but this program will be continued.
2. In 1974, with improved gold prices, Giant Yellowknife Mines Limited began the open-pit mining of upper level pillars at a rate of 400 tons per day. One pit has been mined to its mineable limits, two are currently operating, and a fourth is being readied for mining. These have provided about 40 per cent of mill feed over the past two years.
3. In 1979 Pine Point Mines Limited will begin operations with its new \$2 million dragline. Initially it will be used to clear overburden, reducing the cost of this work by as much as 75 per cent and thus making it economically possible to mine deeper in pits that have high strip ratios. The principal problem at the mine is power supply. A special installation was required for the dragline; and up to one-third of the operation's available power has been used at times to control ground water flow at pit sites. Annual pumping costs have been as high as \$2.8 million.
4. Nanisivik Mines Ltd.'s first full year of production was 1977. In 1978 the mine improved upon tons milled by five per cent, and upon total value of production by 16 per cent. During 1978, the mill produced an average of 11 000 tonnes of zinc concentrate and 1 000 tonnes of lead concentrate per month, with a daily feed that has now reached 2 000 tonnes per day of ore. Mine exploration is expanding ore reserves.

5. Terra Mining and Exploration Limited operates two silver mines at Camsell River, 50 miles south of Port Radium. Late in 1976, a new sulphide zone was discovered by surface drilling 1,200 feet north of the Terra mine. Subsequent development on the 600 and 700 levels has opened up a strong structure with both silver and uranium ore. Deep drilling has found silver mineralization at the Terra 1,900-foot level, 800 feet below the present bottom of ore development.

EXPLORATION DEVELOPMENTS

1. The major exploration development in 1978 was the announcement of a major uranium discovery by Urangesellschaft Canada Limited at Lone Gull Lake, about 50 miles west of the hamlet of Baker Lake. The principal deposit consists of four lenses in a zone of potentially valuable ground one mile in length and 300 feet in width. A grade of 0.5 per cent U_3O_8 has been indicated, with additional values in lead and vanadium. On the basis of other discoveries and indications on their extensive holdings (1,200 square miles), Urangesellschaft has announced that the area could contain up to 100 million pounds of mineable U_3O_8 . Exploration plans for 1979 have been budgeted at \$4 million.
2. The success of Western Mines Limited, and its partner Du Pont of Canada Exploration Limited in exploring west of Pine Point has resulted in claim staking along the favourable belt of rocks for a length of nearly 100 miles. A new discovery hole was recently reported in an area 4 kilometers west of the X-25 deposit. The latter was discovered by pattern drilling in 1975 and is reported to contain 3.5 million tonnes of 12.4 per cent combined zinc and lead.

NATIVE LAND CLAIMS

The major development in land claims during 1978 was the agreement-in-principle reached by the federal government and the Committee for Original Peoples' Entitlement (COPE), representing the Inuit of the north-west part of the District of Mackenzie and the western Arctic islands. Outright ownership of 12 950 square kilometers, surrounding six Inuit communities, will be transferred to the Inuit along with surface rights to an additional 83 000 square kilometers. The area of traditional use to which the COPE Inuit would abandon all future claim is 339 300 square kilometers. The government announced that the final settlement, which will include provisions for financial and economic concessions as well, should act as a guideline for other Native land claim agreements. This was greeted with repudiation by some Native leaders, who announced that the COPE agreement was a poor bargain for the Northwestern Inuit. Little progress has been made in detailed negotiations over the agreement-in-principle, partly due to problems of over-lapping between the COPE claims and areas upon which other Native groups intend to make claims.

The problem of settling Native land claims remains one of the principle uncertainties in long-range plans for northern mineral development. In the Northwest Territories there are two other distinct areas, or Native groupings, involved in claims negotiations:

- (1) The Inuit of the north and east (a total of 28 communities) presented a new and simplified claim to the federal government in December 1977, leaving out all the complex details of their well-publicized original claim of March 1976. The major principle, upon which negotiations have been virtually stalled, is the government's insistence that constitutional and socio-economic elements be dealt with separately.
- (2) The claims of the Mackenzie River Indians have been stalemated by the failure of the three major groups, the Dene, the Metis and the Non-Status Indians, to achieve agreement amongst themselves in how their common claim will be composed and presented. Since the federal government has refused to deal with the groups separately, or to fund any further claims expenditures until there is a common leadership, no apparent progress is being made in this particular negotiation.

METALLIC MINERALS AND PRODUCTS

Copper

London Metal Exchange (LME) and New York Commodity Exchange (COMEX) inventories of copper continued to fall during April. Month end stock figures for the two exchanges were 234 275 tonnes and 122,302 short tons respectively.

Prices generally continued to maintain the levels reached late in February. Cash wirebar prices on the LME closed the month at the equivalent of 94 (U.S.) cents a pound. At the end of April U.S. producer prices for cathode were 94-95 (U.S.) cents a pound and in Canada, cathode prices were 108 cents a pound.

Canadian production of primary copper in the first two months of 1979 was 92 261 tonnes compared with 119 743 tonnes in the same period of 1978. This decrease reflects the continued strikes at Gaspé and Inco both of which were still in progress at the end of April. Another Canadian copper industry strike was averted when workers at another Noranda Mines Limited subsidiary, Canadian Copper Refiners Limited (CCR) agreed to a new contract during the weekend of April 7-8. A strike at CCR would have eliminated Canada's entire production of refined copper since the only other Canadian refinery, owned by Inco Limited, is closed due to the Sudbury strike.

The greatly increased earnings of copper producers during the first quarter of 1979, due to higher prices and a deeply discounted Canadian dollar, is rapidly improving the prospects for capacity expansions and new mine openings in Canada. During April it was announced that:

- Teck Corporation will bring its Highmont mine into production. Highmont Mining Corporation will produce 22 000 tonnes of copper and 2 000 tonnes of molybdenum a year. The mine is located in the Highland Valley in British Columbia.
- Lornex Mining Corporation Ltd. is studying the possibility of expanding its Highland Valley mine by 50 per cent. The Lornex mine is already one of Canada's largest producing 50 000 tonnes of copper a year.
- Noranda Mines Limited will expand its Bell Copper mine in British Columbia to increase ore production to 15 400 from 13 600 tonnes of ore a day by 1981.

The Federal Republic of Germany announced during April that it will begin stockpiling important minerals and metals during the summer of 1979. Copper is so far not included in the list of proposed purchases.

MITI sources announced that 44 000 tonnes of refined copper owned by the Metals and Mineral Products Stockpiling Association is likely to be released to domestic smelters before August 1982 in view of the recovery of copper prices.

Supplies of copper for Zambia and Zaire were reported to be running well below contractual levels during April. European consumers had to resort to spot purchasing to cover their immediate requirements. Reduced shipments are being caused by a combination of transportation and production problems in the African countries.

Gold

The opening gold quote on the London Gold market for April, 1979 was \$240.05 (U.S.) an ounce. The price was comparatively stable until about the middle of the month when it dropped sharply to a low of \$231.75 (U.S.) an ounce on April 17. The gold price increased to a high of \$245.30 (U.S.) an ounce at the end of the month. The announcement by the U.S. Treasury that it was to lower the gold offered at its monthly gold sales by one half was largely responsible for the improvement in the price. The monthly average gold price for April, 1979 of the afternoon fixing prices on the London Gold Market was \$239.16 (U.S.) (\$274.15 Cdn.) compared with \$242.09 (U.S.) (\$284.19 Cdn.) an ounce of gold for March.

The International Monetary Fund (IMF) held its thirty-second gold auction on April 4, 1979 under the bid price method and awarded 470,000 fine ounces of gold to successful bidders at prices ranging from \$238.71 (U.S.) a troy ounce to \$240.27 (U.S.) an ounce and averaging \$239.21 (U.S.) an ounce. The average price at the thirty-first gold auction held on March 7 was \$241.68 (U.S.) an ounce. The afternoon fixing price on the London Gold Market on April 4 was \$239.75 (U.S.) an ounce. Competitive bids were received for 1,190,000 ounces. Awards were made to 14 successful bidders out of a total of 17 bidders submitting competitive bids. The successful bidders were mainly European banks and bullion dealers but a couple of North American bullion dealers were also awarded gold. There were no non-competitive bids submitted by eligible member countries.

On April 17, 1979 the Treasury Department of the United States held its twelfth gold auction under the new sales program and awarded 1,500,100 troy ounces of gold to successful bidders at an average price of \$230.68 (U.S.) an ounce. Awards of 1,000,000 ounces of high grade gold stock were made to successful bidders at prices ranging from \$230.13 (U.S.) a troy ounce to \$232.10 (U.S.) a troy ounce and averaging \$230.96 (U.S.) an ounce. Awards of 500,100 ounces of lower grade stock were made to successful bidders at prices ranging from \$229.27 (U.S.) a troy ounce to \$231.53 (U.S.) an ounce and averaging \$230.17 (U.S.) an ounce. Bids received for the fine grade gold amounted to 2.3 million ounces and 1.1 million ounces for the lower grade gold. The average gold price at the eleventh auction held on March 20, 1979 was \$240.90 (U.S.) an ounce. The afternoon fixing price on the London Gold Market on April 17 was \$231.90 (U.S.) an ounce. Awards were made to 20 of the 27 firms that submitted competitive bids at the auction. The major purchasers of gold were European and North American banks and bullion dealers.

The United States Treasury announced on April 18 a change in the format of its gold sales. The Treasury expects to sell at least 750,000 ounces of gold at its regular monthly auctions. At the next gold auction to be held on May 15, 750,000 ounces of lower grade gold will be offered for sale.

Echo Bay Mines Ltd., a wholly-owned subsidiary of IU International Corporation has optioned a gold prospect from Canadian Nickel Company Limited a wholly-owned unit of Inco Limited and Dome Mines, Limited in Contmoyo Lake area, Northwest Territories about 400 kilometers northeast of Yellowknife. The property was discovered by Canadian Nickel in 1960 and a limited amount of exploratory work done. Echo Bay plans to carry out an underground exploration program using load-haul-dump equipment to determine the feasibility of developing a fully integrated underground operation.

Iron Ore

Iron ore pellet prices were raised by The Hanna Mining Company and by the Cleveland-Cliffs Iron Company, effective April 4, 1979. The increase was 7.4 per cent (i.e. from 60 cents (U.S.) a unit of natural iron to 64.45 cents a unit). The companies claim that the new price only partially recovers increases in the costs of energy, labour, and mining supplies.

Lead

The lead supply situation remains unsettled. North American producers are still running late in shipments to customers. However, producer stock levels have eased slightly and as of the end of March stands at 13 816 tonnes in the United States, up 1 630 tonnes from February. The strike at Ozark Lead Co.'s operations in Missouri continued into its second month. Ozark supplies lead concentrates to ASARCO Incorporated's Glover, Missouri refinery and the latter company, although stating that it is in a force majeure situation, has not formally declared one yet. ASARCO has apparently been successful in obtaining lead concentrates from other sources. The price in North America remained unchanged during the month at 48 cents (U.S.) and 54.5 cents (Cdn.) a pound in the respective countries.

The London Metal Exchange (LME) spot price showed a modest gain during the month, moving from 53.4 cents (U.S.) to 54.2 (U.S.) a pound at month-end. Inventories increased for the fourth consecutive month to 18 475 tonnes, up 225 tonnes on the month and 3 000 tonnes since January 1.

A structural change in the lead industry spurred by record high lead prices appears to be underway in the United States. The latest piece of evidence is the purchase by ESB Ray-O-Vac Corp., a subsidiary of Inco Limited, of a secondary metals plant in Newstead, New York owned by

AMAX Inc. This plant will become the third secondary lead production unit in ESB's Refined Metals Corporation. About \$4 million will be spent on modernizing and expanding the plants production capacity to 32 500 tonnes a year of refined metal.

ESB now has about 70 000 tonnes a year of captive lead producing capacity for its battery manufacturing operations. The February Monthly Report carried details of a similar backward integration by Gould Inc., the largest battery manufacturer in the U.S. With the prospect for continuing high lead prices and its consequent inflationary effect on manufacturing costs, we may see more moves by battery producers to include lead production units in their corporate holdings.

Amalgamated Metal Corporation Ltd. predicts that the lead market is likely to continue in deficit supply in 1979 despite a rise in mine production. The company's report forecasts a rise in western world mine production to 2 627 000 tonnes (2 546 000 tonnes in 1978) while refined production will increase to 3 200 000 tonnes in 1979 from 3 115 000 tonnes in 1978. Consumption is expected to remain steady in 1979 at 3 230 000 tonnes while net exports to socialist countries will total about 100 000 tonnes. The main feature of the market will be the continued high demand for metal and concentrates from Russia.

Molybdenum

An already tight domestic molybdenum supply situation has been exacerbated by two strikes. The Canadian Association of Industrial, Mechanical and Allied Workers (CAIMAW) has been on strike at Placer Development Limited's Endako mine since February 15. Endako normally produces about 6 800 tonnes of molybdenum per year, accounts for nearly 50 per cent of Canadian production, and supplies 60 per cent of domestic requirements. Using supervisory personnel, the Endako facility has been operating during the strike at about 30 per cent of capacity. It is believed that most of this production has been sold to Japanese customers at prices significantly above the current producer price. Canadian consumers have been offered molybdenum at similar terms. Talks between Placer Development and the CAIMAW are expected to resume the first week of May.

The Gaspe Copper Mines, Limited have been shut by strike action since October 17, 1978. Gaspe normally produces about 1 000 tonnes of molybdenum in concentrates per year. During April, 88 per cent of the United Steelworkers of America voted against the latest settlement offer.

Reflecting the worldwide tight molybdenum supply situation AMAX raised its molybdenum oxide export price on April 1 by about 15 per cent to U.S. \$7.54/lb. Other major world producers have followed suit. Dealer prices are about U.S. \$24.50/lb.

Teck Corporation has announced that development of the Highmont, British Columbia copper-molybdenum property will begin in May. The project will cost \$150 million. Teck is aiming for a startup by the end

of 1980. Anticipated production is 22 700 tonnes of copper and 2 000 tonnes of molybdenum per year. Highmont will represent about a 12 per cent increase in Canadian molybdenum production capacity.

Nickel

In early April nickel producers increased the prices of their nickel products by 25 cents a pound. The new prices are \$2.55 (U.S.) a pound for plating nickel, \$2.50 a pound for melting nickel and \$2.41 a pound for charge nickel. This latest round of price increases was initiated by Falconbridge Nickel Mines Limited on April 6 and follows a 20-cent a pound increase that was put into effect in March. The March increase was initiated by Societe Metallurgique Le Nickel on March 9. On February 2, Inco Limited posted metal prices for the first time since July 1977, which were \$2.10 a pound for plating nickel, \$2.05 a pound for melting nickel and \$1.96 a pound for charge nickel. This followed a one and one-half year period of severe price competition during which nickel is reported to have sold as low as \$1.70 a pound. During this period producers instituted severe production cut-backs and producers stocks started to decline in the second half of 1978. Producers stocks continue to decline because of increased consumption, low production rates, the continuing strike at Inco's Sudbury operations and the rebuilding by consumers of their severely depleted stocks. Producer inventories are now approaching normal working levels and unless the Inco strike is settled shortly or other producers substantially increase production there could be supply shortages of selected nickel products in the near future.

The London Metal Exchange (LME) started trading a three-month nickel futures contract on April 23. Three month nickel traded at 2 780 pounds sterling a tonne on April 23 and closed at £3155 (\$2.95 U.S. a pound) April 30. The first cash dealings in nickel will begin July 20. Contracts may be expressed either in primary cathode, pellet or nickel briquette of a minimum 99.8 per cent purity with chemical analysis conforming to the current specifications of the American Society for Testing and Materials. Regulations specify that all nickel delivered should be packed in steel drums with a minimum net weight of 150 kilos and a maximum 500 kilos. All drums delivered under the contract must be opened and inspected on arrival by the receiving LME warehouse and the nickel repacked in the original drums, where possible, and sealed. Good delivery is limited for the time being to the following nickel producers; Inco Limited, Falconbridge Nickel Mines Limited, Sherritt Gordon Mines Limited, AMAX Inc., Marinduque Mining and Industrial Corporation, Outokumpu Oy, Raznoimport (U.S.S.R.), Societe Metallurgique Le Nickel, Western Mining Corporation Limited, Shimura Kako Co. Ltd. and Sumitomo Metal Mining Co. Ltd.

Zinc

Producer's prices for zinc remained unchanged in April from the month prior and stood at \$800 (U.S.) a tonne in Europe, 39.5 cents (U.S.) a pound in the United States, and 45 cents (Cdn.) a pound in Canada. Quotations on the London Metal Exchange opened and closed the month at \$821.90 and \$796.65 (U.S.) a tonne respectively.

INDUSTRIAL MINERALS AND PRODUCTS

Asbestos

The Quebec Government decided on May 2, 1979 to proceed with debate on **Bill 121** to expropriate some of the assets of Asbestos Corporation Limited (ACL), of Montreal.

It has been apparent that Quebec would prefer not to resort to expropriation, however the approximate \$60 a share difference between the two sides on a price for the shares has apparently left no alternative. As introduced in December 1978, if a sale price cannot be agreed upon with General Dynamics Corporation, the owner of 54.6 per cent of ACL, a two-month period will be granted to reach a general agreement on price following a notice of expropriation. If agreement is not reached during this period the bill provides for an arbitration committee. Rights to appeal on arbitral decision in the regular courts will be available to both sides.

Quebec's la Société nationale de l'amiante, started its first venture in asbestos processing with the running in of an asbestos-felt flooring plant. The plant, situated in Cap-de-la-Madelaine, was formerly a newsprint mill owned by Consolidated-Bathurst Inc. and was renovated with Quebec financing of \$4.7 million. The plant is managed by Papiers Cascade Ltée, a well-established producer of asbestos paper. Output of this product, which contains about 85 per cent fibre, will be sold to Domco Industries Ltd., a major Quebec linoleum producer. If markets develop, plant capacity could increase from 10,000 tons of felt flooring a year to 40,000 tons a year, according to a Quebec spokesman.

MINERAL FUELS AND PRODUCTS

Petroleum and Natural Gas

Much of the activity for the 1979 drilling season north of 60° will take place in the Beaufort Sea area and off Baffin Island. Dome Petroleum Limited and partners will utilize four drillships to test two existing wells and expect to drill from four to six new wells in the Beaufort Sea. In the Davis Strait, off southern Baffin Island, it is expected that two wells will be drilled, one by Aquitaine Company of Canada Ltd. and the other by Esso Resources Canada Limited. Petro-Canada will be very active in this area by conducting seismic surveys.

In the Newfoundland-Labrador area, it is expected that eleven wells will be drilled or started. The breakdown of the companies drilling these wells is as follows: six by Total Eastcan Exploration Ltd., two by Chevron Canada Limited and single wells by Esso Resources, Texaco Canada Inc. and BP Minerals Limited. Petro-Canada will be a participant in ten of these wells. Petro-Canada has committed an expenditure of \$20 million, to earn an interest in the oil and gas acreage being explored. Texaco Canada

Inc., with its drillships "Discoverer Seven Seas", will be operating in the Gander Block off northeast Newfoundland. Texaco hopes that the drillships will establish a new record by drilling in 1 500 meters of water (the present record is 1 320 meters). The \$25 million well will take 120 days to reach its expected depth of 5 800 meters.

In the Scotian Shelf area this summer, a program will be conducted to evaluate two oil and gas discoveries made by Mobil in 1972-73, along with a number of other tests.

Uranium

Canadian Occidental Petroleum Ltd., and Inco Metals Company, equal partners in a uranium exploration program in northern Saskatchewan, have reportedly made a promising uranium discovery, 11 kilometers northwest of Rabbit Lake. A zone has been outlined over a distance of 135 meters by 10 to 12 drill holes. One hole intersected 9.8 meters of mineralization at a depth of 150 meters with uranium values of 4.9 per cent uranium.

United States uranium production in 1978 has been reported by the U.S. Department of Energy at 14 230 tonnes uranium (U), compared with 11 460 tonnes U in 1977. Some 46 per cent and 29 per cent of the 1978 total came from New Mexico and Wyoming, respectively. The preliminary estimate of exploration and surface development drilling in the United States for 1978 was 14.3 million meters, compared with 14.0 million meters in 1977. Some 36 per cent and 21 per cent of the 1978 total was in Wyoming and New Mexico, respectively.

SPECIAL ITEM

Zinc

Cominco Ltd. has announced the start of construction for the world's first commercial-scale zinc pressure leaching plant.

The new plant, using a process developed by Cominco and Sherritt Gordon Mines Limited, will cost approximately \$23 million and will be located at the company's Trail operations. Capacity of the plant will be 70,000 short tons of zinc per year. The project is part of Cominco's eight-year lead-zinc modernization and expansion program at Trail, estimated to cost more than \$425 million.

The new plant will ultimately replace a suspension roaster and will treat nearly 25 per cent of the zinc concentrates processed to zinc metal at the Trail operations. The main concentrate treatment will continue through two modern fluid bed roasters constructed in 1971 and a leaching plant which is currently being modernized.

The new system will greatly improve industrial hygiene, productivity and environmental control, and will allow the company to produce elemental (solid) sulphur instead of sulphur dioxide gas.

Under the present production system, sulphur dioxide - the by-product of zinc production at Trail - must be used in chemical and fertilizer production as it is produced. The advantage of elemental sulphur is that it can be stored easily in block form and used at the company's convenience. This will allow a degree of flexibility heretofore unavailable in by-product chemical and fertilizer production.

From the initial process step onward, solids are maintained in a slurry form under pressure in a tightly-enclosed system. This combination of a wet system and absolute enclosure eliminates any possibility of hygiene problems normally associated with roasting concentrates and the related problems of handling hot gases and dusty solids.

The pressure leaching technology was developed jointly by Cominco and Sherritt Gordon in 1977 at a pilot-plant project at Fort Saskatchewan, Alberta. In operation, zinc concentrates will be reacted with sulphuric acid and oxygen at high temperatures and pressure to dissolve the zinc and produce elemental sulphur. With the sulphur removed, the remaining zinc-rich slurry will be pumped to the sulphide leaching plant where it will join the main flow from the conventional roaster-leaching operation.

The new pressure leaching plant will be built in two stages. The first stage will see one reactor installed with related equipment. This unit will begin operation in spring 1981. A second unit will be completed early in 1983.

Recent Amalgamations and Mergers Published in the Gazettes

The following is a list of companies involved in an amalgamation into one company under the name of Getty Oil (Canadian Operations), Ltd. - La Compagnie Petroliere Getty (Operations Canadiens), Ltée on 29 December 1978.

- Getty Oil (N.S.), Ltd.
- Getty Mining Pacific, Limited
- Getty Mining Northeast, Limited
- Getty Oil (Canadian Operations), Ltd.
- La Compagnie Petroliere Getty
(Operations Canadiens), Ltée
- Getty Oil (Maritime), Ltd.
- Getty Oil (Arctic), Ltd.
- Getty Oil (Northwest Territories), Ltd.
- Getty Oil (North Star) Ltd.
- Getty Oil (Baffin Island), Ltd.
- Getty Oil (Pacific), Ltd.
- Getty Oil (Plateau), Ltd.
- Getty Oil (Mackenzie Delta), Ltd.
- Getty Oil (Foothills), Ltd.
- Getty Oil (Eagle Basin), Ltd.
- Getty Oil Company, Ltd.
- Getty Oils (Plains), Ltd.
- Skelly Exploration Canada Limited
- Skelly Mining Canada Limited
- Skelly Minerals Canada Ltd.
- Skelly Oil of Canada Ltd.

Roblindale Quarries Limited amalgamated with H.J. McFarland Construction Company Limited, Sandor (F.-G.) Limited and Sandor (York) Limited under the name of H.J. McFarland Construction Company Limited on 31 December 1978.

Vespar Mines Limited amalgamated with Lakehead Mines Limited into a new company under the name of Parlake Resources Limited on 11 January 1979.

Carey-Canadian Mines Ltd. amalgamated with Jim Walter Building Products Ltd. into a new company under the name of Carey-Canadian Mines Ltd. on 31 August 1978.

Barringer Hydrocarbons Limited amalgamated with Minsearch Surveys Limited into a new company under the name of Minsearch Surveys Limited on 31 December 1978.

Domet Limited, Dominion Mines and Quarries, Limited, Electric Furnace Products Company, Limited, International Eveready Company, Limited and National Carbon Limited and Prelcor Refining Limited amalgamated into a new company under the name of Electric Furnace Products Company Limited on 29 December 1978.

Hudson Bay Mining and Smelting Co., Limited amalgamated with the following companies: Hudcana Inc., Hudson Bay Diecastings Limited and Zochem Limited into a new company under the name of Hudson Bay Mining and Smelting Co., Limited - La Compagnie Minière et Métallurgique de la Baie d'Hudson Limitée on 31 December 1978.

Quebec Iron and Titanium Corporation - Fer et Titane du Quebec, inc. changed their name as of 13 January 1979 to QIT-Fer et Titane Inc.

Chibougamau Mining & Smelting Co. Inc. changed its name on 20 January 1979 to C.M. & S. Mines Inc. - Les Mines C.M.&S. Inc.

NEW PUBLICATIONS

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

Preprints, **Canadian Minerals Yearbook**, 1977, Copper; Gold; price 50¢ a copy.

Pretirages 1977, Le minerai de fer; la silica; prix 50¢ une copie.

Canadian Mineral Survey, 1978; price \$1.00; available from EMR only.

The above publications are available from the Publishing Centre, Department of Supply and Services, Ottawa with the exception of the Canadian Mineral Survey 1978 which may be obtained directly from EMR.

