

Newfoundland and Labrador

MINFO

Mineral Resources
INFORMATION

Volume 1, No.1 (Spring 1995)

THIS ISSUE

*Newfoundland Mining Industry on
Upswing*

*Mineral Exploration: Voisey Bay
Leads the Field*

*The Newfoundland Exploration
Assistance Program*

Prospectors Training

New Geological Studies Planned

*GIS and Digital Mapping in the
Newfoundland Geological Survey*

*A Mining Friendly Investment
Environment*

Price Trends

Geology Map Published

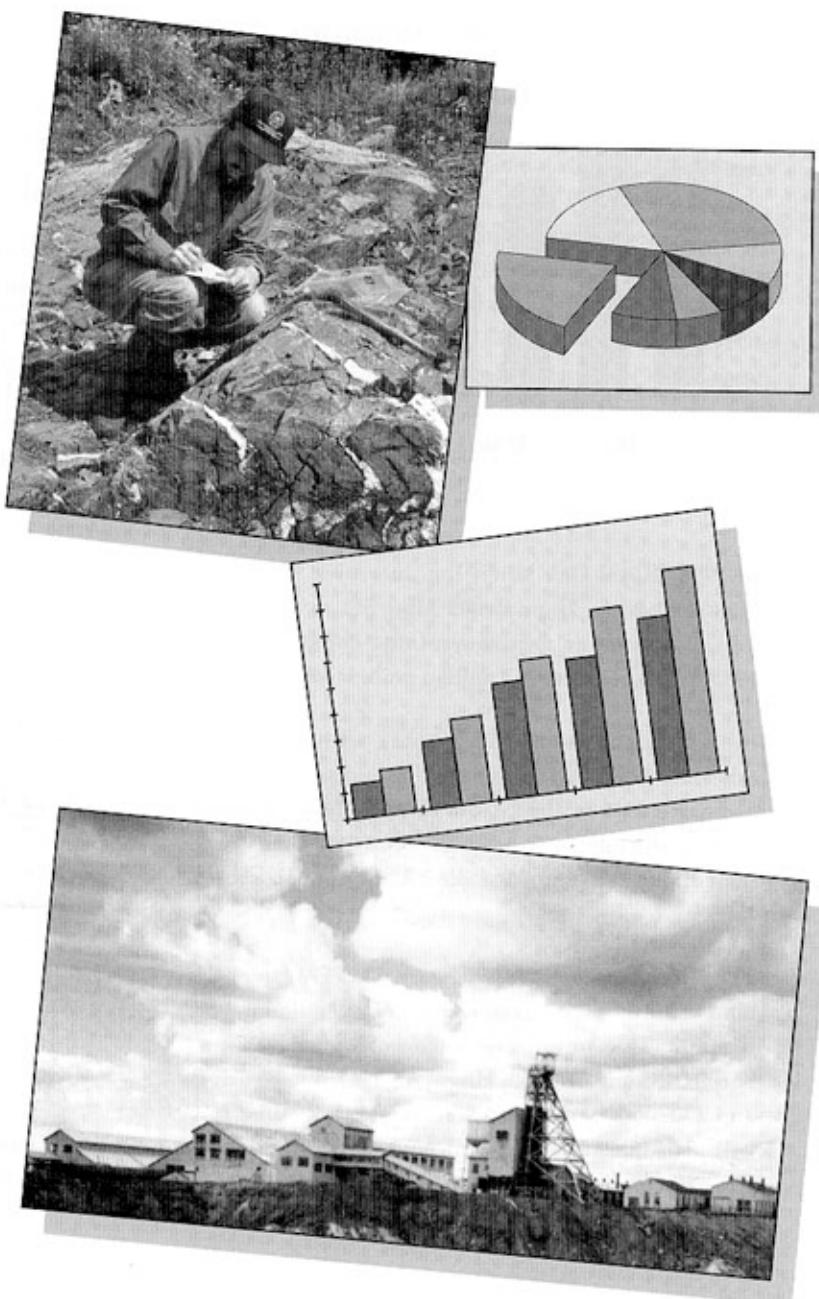
Upcoming Events



GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR

Department of
Natural Resources

Mines Branch

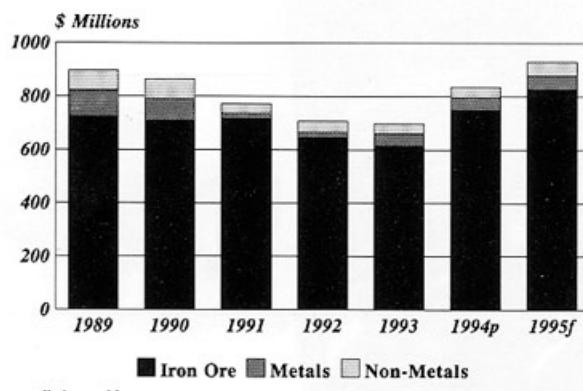


Mining Industry on Upswing

The total value of Newfoundland and Labrador's mineral shipments in 1994 (preliminary) was \$836 million, an increase of 20% over 1993.

The main reason for this increase is the resurgence of the iron ore industry in western Labrador. The Iron Ore Company of Canada (IOCC) increased its total shipments 18% to 15.8 million tonnes and Wabush Mines increased its shipments 5% to 5.1 million tonnes.

Newfoundland and Labrador Value of Mineral Shipments



p:preliminary f:forecast
Source: Natural Resources Canada
1994p,1995f - Nfld Dept of Natural Resources

In 1994, Royal Oak Mines Inc. increased shipments of gold from the Hope Brook Mine 5% to \$47.2 million. The copper recovery plant, constructed in 1993, produced over 1.3 million pounds of copper.

Industrial mineral shipments, which include asbestos, dolomite, gypsum, peat and pyrophyllite, decreased 27% in 1994. However, shipments of structural materials such as brick, cement, limestone, sand and gravel, slate and dimension stone increased 13%.

The general outlook for 1995 is an 11% growth in the total value of mineral shipments to \$929 million. This is mainly due to increased iron ore production at both IOCC and Wabush Mines, higher iron ore prices and a weaker Canadian dollar. Royal Oak Mines Inc. will also increase gold and copper production at Hope Brook.

Newfoundland Slate Inc., which quarries slate at Nut Cove, Trinity Bay, has completed test quarrying at its deposit located south of Long Harbour, Placentia Bay and production could begin in 1995. Burin Minerals Ltd. will initiate engineering, marketing and feasibility studies this year, in preparation for reactivation of the fluorspar mine at St. Lawrence in 1996.

Average employment in Newfoundland's mining industry increased 6% to approximately 3,000 in 1994, mainly due to the recall of approximately 140 workers at IOCC. Employment is expected to increase again in 1995 by 9% to over 3,250.

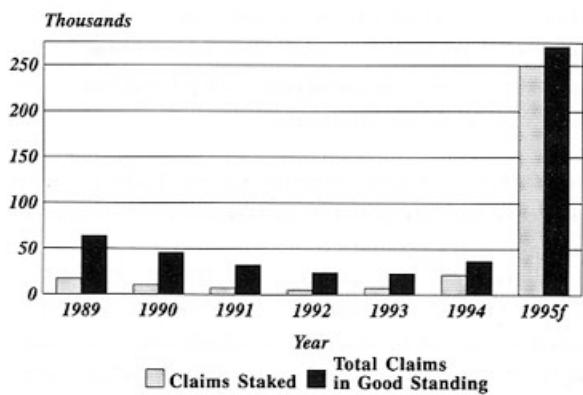
Mineral Exploration: Voisey Bay Leads the Field

On November 3, 1994 Diamond Fields Resources Inc. and Archean Resources Ltd. announced the discovery of the Voisey Bay nickel, copper, cobalt deposit 35 kilometres southwest of Nain, Labrador. Termed the most significant base metals find in Canada for many years, drill holes completed to the end of April indicate a minimum of 40 million tonnes averaging 3.8% nickel, 2.5% copper and 0.14% cobalt. Value of in situ recoverable metal content is approximately U.S.\$10 billion. Diamond drilling is ongoing with three drill rigs on site and an airborne geophysical survey nearing completion. All exploration work is being managed by Archean Resources, a locally-based Newfoundland company under the direction of Diamond Fields.

This discovery sparked a major staking rush in Labrador with over 110 000 claims staked to May 9. Exploration including airborne geophysics, geological mapping, prospecting and possibly diamond drilling is planned for the majority of these claims.

On the island, Major General Resources Ltd. continues to explore its Rendell-Jackman property west of Springdale. Drilling to date has outlined 385 553 tonnes grading 16.46 g/t gold in the Hammer Down zone and 122 469 tonnes grading 24.9 g/t gold in the Rumbullion zone. Major General approved a budget

Newfoundland and Labrador Claim Staking Statistics



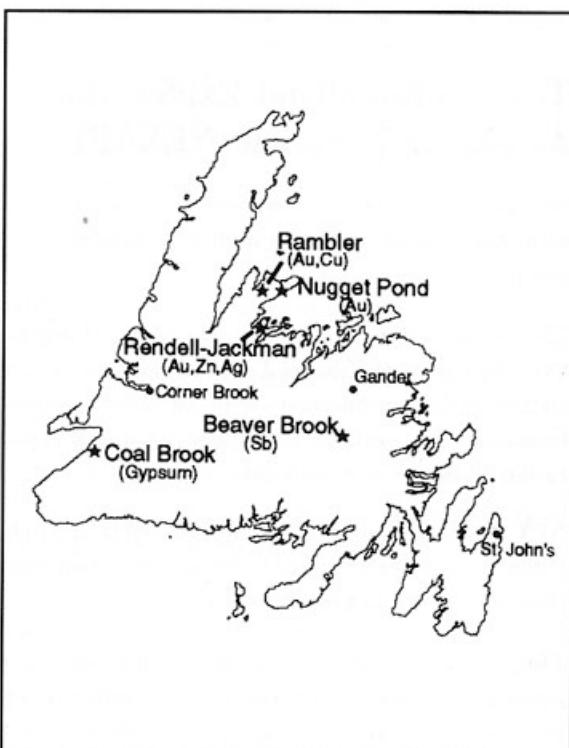
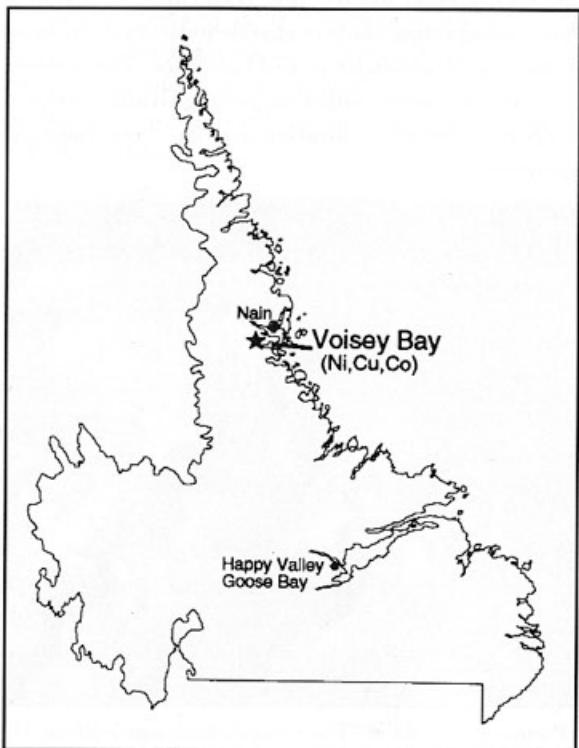
*f*forecast
Source: Nfld Dept of Natural Resources

of \$3.1 million in early 1995 to extract a 2 000 tonne bulk sample to confirm tonnage and grade prior to committing to bring the mine into production. It is estimated that the bulk sampling program will take five months to complete. Major General also discovered the Lochinvar prospect in 1994. The host to this prospect has been correlated with the Buchans - Robert's Arm Belt, host to the high grade Buchans

deposits. Drill results of up to 13.24% zinc, 1.76% copper, 7.00% lead, 298.0 g/t silver and 2.10 g/t gold over 2.25 metres have been reported. Exploration on this prospect is ongoing.

Roycefield Resources Ltd. is preparing an exploration development plan for the summer of 1995 which would involve the construction of a ramp and further diamond drilling on its **Beaver Brook** antimony property located 50 kilometres southwest of Gander. The property contains drill-indicated reserves of 920 000 tonnes grading 4.57% antimony assuming a cut-off grade of 1.5% antimony to a depth of 90 metres over a strike length of one kilometre.

Noveder Inc. completed the construction of a five-kilometre access road, nearly 300 metres of underground development and limited diamond drilling in 1994 - early 1995 on the **Nugget Pond** gold deposit, Baie Verte Peninsula. Estimated minable reserves at Nugget Pond stand at 416 000 tonnes averaging 14.30 g/t gold. The underground development program was temporarily suspended in early 1995 to allow Noveder to evaluate both its development plan and financing arrangements to be used to put the project into



production in 1995. Noveder has expended approximately \$3.5 million on the project to date.

Ming Financial Corporation is funding the purchase of a minimum 70% interest in **Ming Minerals Inc.**, a Newfoundland corporation which owns the mining and milling facilities of the former **Rambler Mine**, Baie Verte Peninsula. By late 1995, Ming Financial expects to achieve onsite production of 680 tonnes per day from approximately 417 000 tonnes of high grade ore containing over 4% copper. The company expects that further exploration and development will establish additional high grade zones in excess of 1.80 million tonnes on this property.

Atlantic Group Ltd./10376 Newfoundland Limited staked a total of 36 claims in 1994 in two separate areas covering the **Sheep Brook** and **Coal Brook** gypsum deposits. Located just east of the St. George's Ranger Station on the Trans Canada Highway, these deposits contain inferred reserves totalling approximately 2 million tonnes. The project has been registered with the Department of Environment. Road construction and possible production is planned for 1995.

The Newfoundland Exploration Assistance Program (NEXAP)

On June 17, 1993, government announced a new exploration assistance program for the junior mining sector.

The Newfoundland Exploration Assistance Program (NEXAP) provides financial assistance up to 50% of eligible costs for companies with no current income from mining operations to conduct advanced exploration programs on known mineral prospects.

NEXAP provides up to \$80,000 per project and individual companies are eligible for assistance on more than one project to a maximum of \$160,000.

The program encourages local companies and prospectors to conduct more exploration in the province and carry mineral prospects to a more

advanced stage whereby they may arrange joint ventures with larger companies. This will enable them to retain a larger, more significant local ownership in these resources and the revenues that may flow from future mining developments. It also encourages and promotes a greater involvement by local entrepreneurs in the mining industry.

In 1994/95, NEXAP contributed \$454,250 to seven projects and attracted approximately \$2 million in private-sector expenditures.

Three NEXAP-supported projects are in the prefeasibility stage and production decisions should be made in 1995. These projects are: (1) Long Harbour slate (Newfoundland Slate Inc.); (2) Rendell-Jackman gold and base metal property near Springdale (Major General Resources Ltd.); and (3) Beaver Brook antimony near Gander (Roycefield Resources Ltd.).

Prospectors Training

The goal of the Prospectors Training component of the Prospectors Assistance Program (PAP) is to develop a local prospecting fraternity by teaching basic prospecting skills to eligible individuals from all regions of Newfoundland and Labrador. The training project, in concert with Prospecting Grants, seeks to increase mineral exploration activity throughout the province.



Panning for gold at "The Grass", Robinson's River

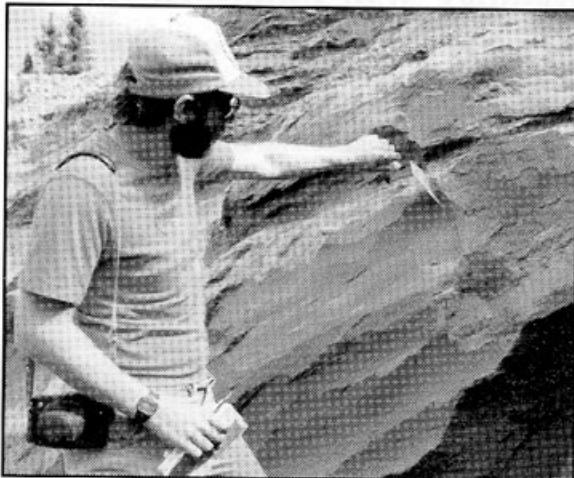
The course is designed to teach basic prospecting skills based on fundamental geological principles. The PAP covers all student-related costs and the course has been delivered in late spring each year since 1991 through Westviking College in Stephenville. In 1995, the course will run from May 27 to June 9 and will have 20 students enrolled.

New Geological Studies Planned

The Geological Survey Division is planning two multidisciplinary projects for 1995 that will focus a variety of geoscience disciplines on areas deemed to have high potential for future mineral production. One of these is the Buchans - Robert's Arm area in Newfoundland and the other is the Kanairiktok area in eastern Labrador.

Both projects will utilize a variety of geoscience methods to produce detailed maps and digital databases. This information will be combined with existing industry data into a series of maps and reports to identify favourable areas for further exploration by industry.

An essential first step in this project is compilation of data from previous work in each area. Geologists are researching information available from published sources and government files, and recording the data in digital format.



*David Liverman, Project Geologist, Geological Survey
- Mapping glacial deposits*

New geological mapping at a scale of 1:25,000 will produce a detailed picture of the distribution of rock units in each area, and allow explorationists to trace units favourable for mineralization. At the same time, regional studies of the glacial deposits will provide important information on the origin of mineralized boulders and geochemical indications of mineralization.

GIS and Digital Mapping in The Newfoundland Geological Survey

Geoscientific information can be a major instrument for promoting mineral and hydrocarbon exploration, as well as sustainable infrastructure development, in Newfoundland and Labrador. Information technology has opened up many new ways to distribute geoscientific information to both traditional users and new user-groups. To maintain a competitive edge, it is essential to have an up-to-date database in digital format to take advantage of these new techniques.

Some types of data, such as geochemical analyses, have been available digitally from the Geological Survey for some time. During the continuing staking rush that has followed the discovery of the Voisey Bay deposit, several exploration companies and individual prospectors have made extensive use of the regional digital geochemical and geophysical datasets in acquiring mineral rights in Labrador.

Until recently, a number of methods was used by the Geological Survey to convert specific types of information to a digital format. Now, however, CARIS™, a Geographic Information System (GIS), has been adopted as the main approach for constructing a comprehensive digital geoscientific knowledge base. CARIS™ will also be used to produce computer-generated geological, geophysical and geochemical maps. Digital database development will extend for many years, and the database will require continuous updating.

In parallel with the CARIS™ GIS database, desk-top mapping systems that run on a PC in Windows™, such as ArcView™ (version 1.0), will be employed to provide ready access to digital geochemical, geophys-

ical and related geological and topographic information for use by both the specialist and non-specialist. Digital atlases can be prepared rapidly from existing digital datasets and, because ArcView™ (version 1.0) is available at no cost, it can be done cheaply. Furthermore, with ArcView™, themes and databases from individual atlases are easily linked to each other and to digital indexes that associate bibliographic information with the areas being researched.

A Mining Friendly Investment Environment

Changes made to the Mining and Mineral Rights Tax Act, effective January 1, 1995, make Newfoundland and Labrador's mining tax regime among the most attractive in Canada and the world, and will be of considerable benefit to new mining projects. The changes are as follows:

- Provincial corporate taxes paid to the province are now creditable against mining taxes payable for the first 10 years a new mine is in operation;
- The depreciation schedule, which allowed assets to be written off over 10 years, now allows accelerated write-offs by following the capital-cost allowances set out in the Income Tax Act;
- The processing allowance changed from 8% of the processing asset base up to a maximum of 65% of net income, to 8% of the processing asset base and 15% of the smelting asset base or 15% of taxable income, whichever is greater, to a maximum of 65% of net income.
- The revised legislation allows for a five-year carry forward of exploration expenses incurred anywhere in the province as opposed to the previous requirement which only allowed on-site exploration expenditures incurred by a mining operation.

Price Trends

Antimony and antimony oxide prices have soared over the last year. The price of antimony oxide rose

from U.S.\$1.00 per pound in April 1994 to U.S.\$2.50 by September, and as of January 1995 it stood at U.S.\$3.25-\$4.00 per pound. The main reason for the recent price surge is the shortage of supply from Chinese ore producers. Recently, the problem for most buyers has been obtaining supplies of any kind, price being a secondary issue. This is good news for Roycefield Resources Ltd. which is developing the Beaver Brook antimony property southwest of Gander.

Northern Resource Investments Ltd., which is planning to reactivate the fluorspar mine at St. Lawrence in 1996, is keeping a close watch on fluorspar prices. In March 1994, the Council of the European union imposed an anti-dumping duty on imports of acidspars originating from China and in April 1994, the Chinese central government imposed an export licence system on fluorspar. As a result, the fob price per tonne for acidspars filtercake exports from China increased from U.S.\$65 at the end of 1993 to U.S.\$90. Since November 1994, prices for Mexican (fob Tampico) acidspars (filtercake) increased U.S.\$8-\$15 per tonne and prices for U.S. gulf port acidspars (dry basis) increased approximately U.S.\$30 per tonne.

*Source: Mineral Price Watch Magazine
Industrial Minerals Magazine*

Geology Map Published for the General Public and Tourists

On June 21, 1994, the Hon. Rex Gibbons, the provincial Minister of Natural Resources, and the Hon. Anne McLellan, the Minister of Natural Resources Canada, unveiled the new **Newfoundland and Labrador: Traveller's Guide to the Geology**. The guide is published in both English and French.

The guide consists of a full colour, folded, two-sided geology map and an illustrated guidebook to 127 road and coastal stops of geological and mining interest. Labrador is featured on one side and the island on the other. The maps also contain eight panels explaining aspects of geology, geological processes, plate tectonics and the mineral and petroleum indus-

tries. The maps also have blocks of text containing facts and information on mines and quarries. The guidebook gives detailed directions for finding the stops and provides descriptions and explanations. A glossary of terms is also included.

The traveller's guide is being distributed to schools in the province. Copies are available to the general public at a cost of \$10.00 (incl. GST) plus \$3 shipping and handling from:

Geological Association of Canada
Publications Department MW94
Department of Earth Sciences
Memorial University of Newfoundland
St. John's, Newfoundland
AIB 3X5
Tel: (709) 737-7660 or 4062
Fax: (709) 737-2532

The project was sponsored by the provincial Department of Natural Resources, the federal Department of Natural Resources and the Newfoundland Section of the Geological Association of Canada. It was funded under the Canada- Newfoundland Cooperation Agreement on Mineral Development.

Upcoming Events

Labrador Geology Field Trip/Workshop
June 18-22, 1995, Happy Valley - Goose Bay, Labrador

Memorial University of Newfoundland and the Newfoundland Department of Natural Resources have proposed a workshop and field trips on Labrador geology. The Labrador North Chamber of Commerce will also be hosting a Supplier Development Conference and Trade Show in partnership with the workshop in Happy Valley-Goose Bay. For more information contact:

Centre for Earth Resources Research
Department of Earth Sciences
Memorial University of Newfoundland
St. John's, Newfoundland
Tel: (709) 737-8142
Fax: (709) 737-2589

Baie Verte and Area Chamber of Commerce Mining Conference June 23-25, 1995, Baie Verte, Newfoundland

This is an annual review of developments in the local exploration and mining scene. For more information, contact:

Mr. Kevin McNeil
Pine Cove Resources Inc.
P.O. Box 418
Baie Verte, Newfoundland
AOK 1BO
Tel: (709) 532-4374
Fax: (709) 532-4647.

APEGN/CIM Joint Meeting and Technical Conference October 25-28, 1995 St. John's, Newfoundland

A conference hosted by the Association of Professional Engineers and Geoscientists of Newfoundland (APEGN), the Newfoundland Branch of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) and the Newfoundland Department of Natural Resources, Hotel Newfoundland, St. John's. The theme of this conference will enable engineers and geoscientists to focus on resource development as a means to economic diversification.

For further information please contact the Technical Committee co-chairs:

Mr. Anthony Chislett
c/o Acres International Ltd.
4th Floor Beothuck Building
20 Crosbie Place
St. John's, NF
AIB 348
Tel: (709) 754-1710
Fax: (709) 754-2717
or
Mr. David Evans
c/o Mineral Deposits Section
Nfld. Department of Natural Resources
P.O. Box 8700
St. John's, NF
AIB 4J6
Tel: (709) 729-5975
Fax: (709) 729-3493

NEWFOUNDLAND AND LABRADOR

*The Right Place
for Business*



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Canada

**DEPARTMENT OF NATURAL RESOURCES
MINES BRANCH**
P.O. Box 8700
St. John's, NF,
Canada A1B 4J6

KEY CONTACTS MINES BRANCH

Mines (Fax 709-729-6782)
Assistant Deputy Minister.....(709) 729-2768
Director Mineral Lands.....(709) 729-6425
Core Storage, St. John's.....(709) 729-5833
Core Storage, Pasadena.....(709) 686-2054
Engineering Analysis.....(709) 729-6449
Financial and Project Analysis....(709) 729-3197
Mineral Industry Assistance.....(709) 729-2358
Mineral Rights.....(709) 729-6418

Geological Survey (Fax 709-729-3493)
Executive Director.....(709) 729-2763
Publications and Information.....(709) 729-3159
Mineral Deposits.....(709) 729-5946
Newfoundland Mapping.....(709) 729-3574
Labrador Mapping.....(709) 729-2107
Geochemistry, Geophysics
 & Terrain Sciences.....(709) 729-2171
Geoscience Data Centre.....(709) 729-6693
Industry Services.....(709) 729-6193
GEOSCAN.....(709) 729-6441

*Minister:
Hon. Rex Gibbons, Ph.D., P.Geo.*