Nova Scotia
# Minerals Update
Department of Natural Resources, Mineral Resources Branch

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## *In This Issue*



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http://www.gov.ns.ca/natr/meb/pdf/mu.htm

NOVA SCOTIA
Natural Resources

# Consultants' Report Highlights the Impact of Mining in Nova Scotia

In May the Minister of Natural Resources tabled a study in the legislature that shows thousands of Nova Scotians benefit from the province's mining industry. The study, prepared by Gardner Pinfold Consulting and Conestoga-Rovers and Associates, compiled provincial and national statistics covering exploration, discovery, development, production and reclamation (Fig. 1). Among the natural resource sectors, mining ranks second, behind the fishing industry, in total contribution to the province's gross domestic product. The total value of primary mineral production is about $230 million per year. The estimated total annual payroll is $80 million for over 1,600 direct employees.

More than 5,260 direct and spin-off jobs are generated from the industry, mostly in rural communities. The study shows that the mining industry pays the highest average weekly wage among all resource sectors. At more than $1,000 per week, it is 40% higher than the average weekly wage of all economic sectors.

The mineral industry is currently dominated by industrial mineral production such as gypsum, salt, limestone, barite and silica. In addition, production of construction aggregates and building materials such as crushed rock, sand and gravel, and dimension stone contribute to nearly 50% of the employment and economic value of the province's mineral resources. Many of these operations have been active for several decades and are expected to continue to operate into the foreseeable future.

For the past two decades production from metal mining has been relatively minor or non-existent. Recent commodity price increases, however, have made ex-

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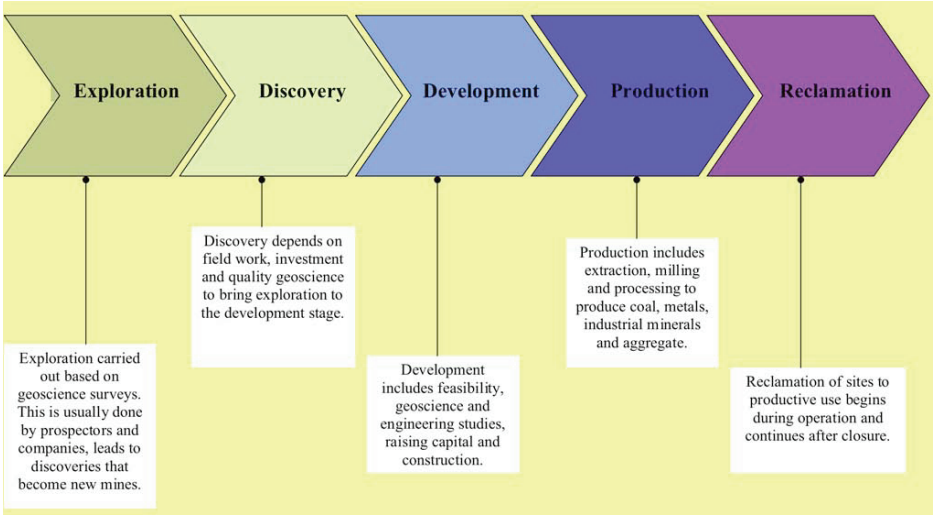


***Figure 1**. Direct economic impact results from activities such as those shown in this illustration from the report Economic Impact of the Mineral Industry in Nova Scotia.*

# Mining Society and Chamber of Mineral Resources Discuss Merger

A little more than a year ago the Mining Society of Nova Scotia and the Chamber of Mineral Resources of Nova Scotia began to discuss a possible merger. The premise of a successful merger was based on the fact that a single organization, sharing a unified voice, could be more effective in dealing with issues pertaining to government, education, promotion, advertising, fund raising and membership.

Although the merger seemed obvious to many, others perceived fundamental differences between the two organizations and suggested that their historical structure and affiliations would not allow for a union. The major concerns centred on the fact that the Chamber is regarded primarily as a lobby or advocacy group for the mineral industry, whereas the Mining Society is regarded primarily as an organization devoted to social, educational and professional networking. Furthermore, because of the historical association of the Mining Society with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), and the fact that CIM is not an advocacy or lobby organization, it was thought that a merger of the two organizations was either impossible or could spell the end of any affiliation with CIM. Thus, while the Chamber of Mineral Resources was generally agreeable to the merger, the Mining Society was less certain. Nonetheless, because of the advantages that a merged organization could bring to the mineral industry, the Executive of the Mining Society decided that a case for a merger should be put forward to its general membership, who would ultimately decide the future direction for both organizations.

Mining Society President Fenton Isenor and Vice President Paul Smith attended the CIM's annual general meeting in Vancouver in March 2006, and met with the CIM National Council and Executive to review the proposed merger. A special meeting of the Mining Society Executive followed, where it was decided that a vote would be held at the Mining Society's annual general meeting in Dundee in June 2006. CIM Executive Director Jean Vavrek made arrangements to attend the Mining Society's meeting at Dundee, and he delivered a presentation to the membership on behalf of CIM. Mr. Vavrek delivered a very positive message to the Mining Society, offering CIM's support to establish a renewed affiliation with the merged organization. He further outlined a number of new opportunities for the Society, as well as offering his informed opinion on several directions the merged organization could pursue.

Vice President Paul Smith followed Mr. Vavrek by laying out the fundamentals of the Mining Society's Mission Statement, which included the original intent for the organization to make representation to government on behalf of the mineral industry. This founding principle of advocacy made it clear that merging the two organizations was fundamentally correct. Following these discussions a vote was held on whether or not to give the Mining Society Executive power to proceed with the merger. All members who were unable to attend the AGM received a secret mail-in ballot. By-laws of the Mining Society require that a 2/3 majority (66.7%) must be given by the general membership in order to proceed with such a fundamental change. After the ballots were counted, the results showed that 78% of the membership supported the merger.

Currently, a 'merger committee' consisting of two, four-member teams (one team each from the Mining Society and the Chamber of Mineral Resources) is in place and is proceeding with discussions on how to implement the merger in a fashion that will maintain the integrity of both organizations while leading to a larger, stronger and more effective society. These discussions are taking place in full consultation with CIM and other affiliate organizations. The merger committee's goal is to have preliminary plans completed in time to announce the restructured organization at *Mining Matters for Nova Scotia 2006*.

Once restructuring is completed, a new full-time Executive Director, a Secretary, three Vice-Presidents and either a Board of Directors or Council will form the Executive of the new organization. It will perform the previous functions and activities of both the Society and the Chamber. It will work to increase both its operational budget and membership, and will launch a significant educational campaign. The new society will become a focal point for media and public information and will include the Prospectors Association of Nova Scotia. Close cooperation or affiliation with CIM and other associated organizations, including both primary and secondary mineral industries, universities, and professional organizations (geoscience, engineering, architecture) will be a fundamental aspect of the new organization. When completed in June 2007, the resulting merger will provide a strong, unified and effective organization that will benefit the entire mineral industry of Nova Scotia, and without doubt, the general public throughout the province.

*Paul Smith*

*Consultants' Report, continued from page 1*

ploration for gold and other metals more attractive and most of the recent increases in exploration activity in the province are related to precious- and base-metal prospects.

A wide variety of mineral-based products are manufactured in Nova Scotia using locally produced materials. Manufacturing includes clay bricks, Portland cement, ready-mix concrete, marble, building stone, slate, gypsum wallboard (projected to restart in 2006) and salt products.

The study is available on the branch website: www.gov.ns.ca/natr/meb.

*Dan Khan*

# Senior Geologist Dan Kontak Joins the Faculty of Laurentian University

Dan Kontak is leaving DNR after twenty years to take a position in the geology department at Laurentian University in Sudbury. Dan grew up in Antigonish in a large family where organization and efficiency, traits he still possesses, were crucial. Dan earned his B.Sc. at St. F.X. He received an M.Sc. from the University of Alberta (1980), and Ph.D. from Queen's University (1984), pursuing his interests in granites and related mineralization.

Dan started officially with DNR in 1986, but had visited the previous year, checking out the department and the granites of the South Mountain Batholith. When Dan arrived he immediately submitted a paper on the granites he had sampled the previous year, a precursor to the productivity to come. Over the past 20 years Dan has undertaken studies that have advanced our understanding of all the major mineral deposits of Nova Scotia. His publication record, including abstracts, reports and journal papers, is extensive. Most recently he has focused on the North Mountain Basalt and its rich zeolite deposits, with a map of these rocks extending his scope to regional mapping.

Over many years I benefited from running with Dan. Although I never ran as fast as him, I know that his support pushed me farther than I would have gone without him. Dan generally has that effect on people, and certainly on everybody in the branch.

Dan's background is well suited for university life. Although he always presents himself well, Dan has shown just enough absent-mindedness to distinguish himself as faculty, like the day he walked up to the elevator and waved his pass card at the elevator button, only to be dumbfounded when the button didn't light up. Dan, we will miss you, but we are sure you will be happy and safe in Sudbury. After all, meteors never strike the same place twice.

*Rick Horne*


*Dan Kontak riding a saddle reef at the Ovens, Lunenburg County.*

## New Digital Products to be Released in August

The Geological Services Division (GSD) has converted its digital geoscience products from the North American Datum 1927 (NAD27) to the North American Datum 1983 (NAD83). Most of the previously available digital products will be released in August as new versions in NAD83, unless otherwise specified. All of the division's new and future digital products will be in NAD83. To see a complete listing of digital products being released please go to http://www.gov.ns.ca/natr/meb/pubs/pubsnew.htm.

During the process of converting to the new datum a number of other changes were made to many of the digital products, including the following. (1) Many digital products have been given a new digital product number. (2) All of the maps and databases that did not previously have the ESRI shapefile format (SHP) available, now have it available for download. (3) A number of geological maps previously listed as being "line work only, no point data", now include all geological point data and unit polygons. (4) A few products previously included more than one data set; now each data set is available as a digital product. (6) The directory structure, file naming conventions and database fields have been modified for geological maps and databases to meet GSD database standards. (7) The web pages used to access these products are consistent in their look and feel. (8) Metadata, which are descriptions of the data, are available for every digital product from its download page.

New versions of these data sets are now available for download free from the GSD website at http://www.gov.ns.ca/natr/meb/pubs/pubs3.htm. To see a complete list of all digital products with the old and new digital product numbers, and a brief comment on the changes to the data, please go to the following web page http://www.gov.ns.ca/natr/meb/download/dpstatus.htm. New web pages containing technical information on digital products may be accessed from http://www.gov.ns.ca/natr/meb/download/dpinfo.htm.

*Brian Fisher, Jeff Poole and John MacNeil*

# Lead-Zinc Deposit at Gays River May Soon Produce Again

Acadian Gold Corporation, a Halifax-based mineral resource company, has announced resource estimation and favourable feasibility results for its Scotia Mine property near Gays River, Colchester County. Acadian acquired the Scotia Mine and Mill (Fig. 1) at Gays River as part of its recent purchase of ScoZinc Limited from HudBay Minerals Inc.

The Scotia Mine is a zinc-lead deposit hosted by a carbonate reef similar to Mississippi Valley Type deposits in the United States. The sphalerite (zinc-bearing sulphide mineral) and galena (lead-bearing sulphide mineral) formed as low temperature replacement minerals and void infillings in the Carboniferous Gays River Formation carbonate. The ore ranges from high-grade material with over 50% zinc in the fore reef, to low-grade material in the back reef areas of the deposit.

The mine has had a history of sporadic production from underground operations, but the new proposal is to access the ore by open pit, with underground operations only taking place after six years of surface mining. The deposit was first mined by Esso Minerals from 1978 to 1981. After Esso ceased operations, the mill facility was purchased and used by Seabright Exploration to mill gold in the 1980s, and Western Mining Corporation operated the underground workings and mill to produce high-grade lead-zinc ore from 1990 to 1992. Savage Resources started the process to obtain permits for surface mining and obtained environmental assessment approval for the project in 2000.

The recent sharp increase in the price of zinc and lead has greatly enhanced the economics of the deposit, as reflected in the feasibility study recently released by Acadian Gold Corporation. With the mill in place and the permitting process already initiated, this property is more or less a turn-key operation that can take advantage of the current high prices for base metals. The recent feasibility report calculated the resources as 5.2 million tonnes of measured and indicated ore at a grade of 4.1% zinc and 2% lead with a 0.75% cut-off grade. Acadian has announced that it intends to raise debt financing of $13.5 million in order to bring the project into production.

*Bob Ryan*

***Figure 1.*** *Scotia Mine and Mill site, Gays River, Colchester County.*

# Mining Matters for Nova Scotia 2006

This year's *Mining Matters for Nova Scotia* conference will be held at the Westin Hotel in Halifax on November 9th and 10th. In past years this conference has included a Tradex, poster displays and a broad spectrum of scientific topics presented by private industry, university and Natural Resources professional staff. Although similar, there are some significant changes in this year's program. *Mining Matters 2006* will see the Tradex compressed to one booth so that an increased effort can be given to a new Core Shack display with associated seminars. For the first time in the history of the department's annual conferences, we are encouraging participants to display selected, representative sections of diamond-drill core material and show how informative and vitally important diamond drilling is to the mineral industry. These drill core displays will highlight features such as stratigraphy, structure and mineralization, and will be available for viewing throughout the duration of the conference. During the first morning of the conference, several open-forum presentations will be given on selected drill core displays. During the afternoon session of Day 1, oral presentations highlighting the many geological activities across the province will be delivered. An exciting special session dedicated to coal will kick off in the morning of Day 2, November 10. This will include everything from stratigraphy and structure, to mining, transportation and utilization, environmental concerns and site reclamation. In addition to the technical program, once again this year the conference will feature a luncheon with special guest speaker, as well as evening entertainment including the Westin's famous 'hip-of-beef' buffet meal. For all those who want a true picture of Nova Scotia's mineral industry in 2006, please plan to attend *Mining Matters for Nova Scotia* at the Westin Hotel in Halifax, November 9th and 10th. While there, please feel free to attend any or all of the sessions and speak to the knowledgable staff of the Mineral Resources Branch.

*Paul Smith*

# From the Mineral Inventory Files

## Castle Frederick: A New Style of Pb-Zn-Ag Mineralization in the South Mountain

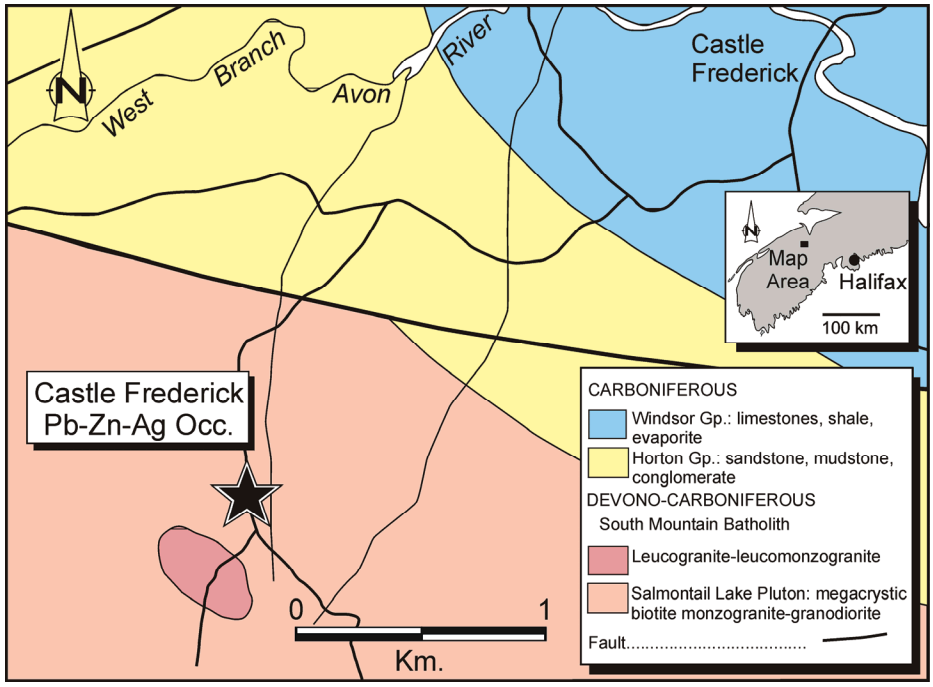


***Figure 1.*** *Geology map of the Castle Frederick area showing location of the granite-hosted Pb-Zn-Ag in quartz-carbonate veins exposed in a rock aggregate quarry.*

An interesting Pb-Zn-Ag occurrence has recently been discovered at Castle Frederick, Hants County (Fig. 1). While visiting an aggregate quarry recently excavated in the South Mountain Batholith (SMB), DNR Regional Geologist Donald Weir noted galena-rich quartz-carbonate veins intruding the granitic wall rock. The occurrence is described in more detail by P. K. Smith, G. Prime, and D. Weir in Report ME 2006-1 (see Special Note, p. 8).

At least four veins occur in a quarry about 50 m long by 15-20 m wide. The veins have sharp boundaries, an E-W trend and steep southerly dips. They average 1-2 cm thick but swell to 8 cm. The veins are zoned, with an outer rim of galena and sphalerite(?) and an inner core of carbonate, vein quartz, chalcedony and jasper (Fig. 2), with local pyrite and/or marcasite. A second set of veins occurs along N-S faults and fractures with a vertical dip. These veins have disseminated pyrite and marcasite. The relationship of the two vein sets is not clear, but at least portions of the N-S veins also contain minor galena, suggesting a syngenetic relationship with the more mineralized E-W set. In places, the E-W veins have an impressive content of galena, with sections consisting almost entirely of massive sulphide. A sample from one vein, assayed by P. K. Smith (DNR), returned 52% Pb, 25% Zn, 38 ppm Ag, 132 ppm Sb and 140 ppm Cd.

What is the origin of these mineralized veins? Similar occurrences are not known in the SMB, but Ag-bearing, Pb-Cu-Zn veins occur at the Dunbrack deposit in the Musquodoboit Batholith (see *N. S. Minerals Update*, v. 21, no. 3). At Dunbrack, the mineralized veins are found along the brecciated contact of a highly evolved leucogranite with less evolved biotite-muscovite monzogranite. At Castle Frederick, the veins are hosted by megacrystic monzogranite of the Salmontail Lake Pluton (SLP), which is one of the more primitive and least chemically evolved phases of the batholith. The SLP is not really a good candidate to produce mineralized veins, but there are intrusions of much more evolved leucogranite in the area of the pit (Fig. 1). Perhaps these intrusions played a role in vein formation.

There is another model that warrants consideration. The predominant Pb-Zn association in the veins suggests a relationship to the nearby Carboniferous Horton and Windsor groups (Fig. 1), in which numerous, carbonate-hosted, base metal deposits are found (see article on Gays River, p. 4). Immediately north of the Castle Frederick occurrence these Carboniferous units are in both fault and nonconformable contact with the SMB. As well, a large raft of Horton Group sediments overlies the SLP a few kilometres to the northwest. This suggests that in Carboniferous times, the SMB near Castle Frederick had been uplifted and unroofed, and was undergoing continental erosion and sedimentation. Conceivably, veins in the granite may be satellite occurrences to larger base metal deposits that were formed in the Carboniferous basin. Given the spectacular appearance of samples collected from these veins, it is probable that someone will take up the challenge to determine their origin.

*G. A. O'Reilly*

***Figure 2****. Zoned, quartz-carbonate vein bearing galena and sphalerite intruding biotite monzogranite at Castle Frederick.*

# Stealth Ventures Calls Nova Scotia Coal-bed Methane Projects "World-calibre"

Stealth Ventures Ltd., a Calgary based junior energy company specializing in unconventional gas, says its coal-bed methane (CBM) projects in northern Nova Scotia have the potential to be "world-calibre" sources of natural gas. Stealth has two main projects in Nova Scotia, the Stellarton Project and the Cumberland Project. The company views the properties to be in the exploitation stage. Company officials explain that the extensive historical information gathered from coal resource evaluation and drilling in these project areas means that the project is in the exploitation phase, not exploration, in conventional oil and gas terms. Chief Operating Officer Derek Krivak recently told an industry breakfast in Halifax that the company is aggressively pursuing the projects, and has already spent $10 million on test drilling and development.

The process of converting plant material to coal produces large volumes of methane ($CH_4$), which are stored on internal surfaces of the coal. Coal-bed methane is contained within numerous coal seams in these project areas at depths of 300 to 1200 m. Stealth is currently flow testing the 430 m open hole at Coal Mine Brook near Springhill on the Cumberland property. A vertical test hole has also been drilled in the Stellarton area. The two areas will be further tested by drilling multiple holes from a multi-well drilling pad. Sproule Associates have estimated the two project areas contain 1.3 trillion cubic feet of "discovered CBM resource." Derek Krivak says any gas produced would be primarily targeted at local markets, but says the projects also have the potential to produce enough gas to export to the northeastern United States.

*Bob Ryan*

# April-June 2006 Open Assessment Reports

| Report Number | NTS | Licensee |
|---|---|---|
| AR ME 1959-001 | 21H/01D | Dome Exploration Canada Limited |
| AR ME 1987-295 | 11E/10A | Suncor Incorporated |
| AR ME 1991-001 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1991-128 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1992-073 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1993-057 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1993-069 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1993-070 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 1993-071 | 11F/16B, C | 656593 Ontario Limited |
| AR ME 2004-037 | 11E/01D | Grant, S |
| | 11E/08A | |
| | 11F/05B | |
| AR ME 2004-038 | 11D/13C | Blackfly Exploration and Mining |
| AR ME 2004-039 | 11F/05A | Schenkels, H F |
| AR ME 2004-040 | 11F/15A | Prochnau, J F |
| AR ME 2004-041 | 21A/02D | O'Brien, J |
| AR ME 2004-042 | 21A/01C | O'Brien, J |
| AR ME 2004-043 | 11D/12D | Marchant, R L |
| AR ME 2004-044 | 11E/13A | Grant, S |
| AR ME 2004-045 | 21H/08D | Hudgins, A D |
| AR ME 2004-046 | 11F/16D | Golden Ace Mineral Explorations Limited |
| AR ME 2004-047 | 11F/04B | MacNaughton, T |
| AR ME 2004-048 | 11D/14A | Ellsin Resources Incorporated |
| | 11D/15B | |
| AR ME 2004-050 | 11F/14B | MacKinnon, R P |
| AR ME 2004-051 | 11D/14C | Allen, L J |
| AR ME 2004-052 | 11E/05D | Allen, L J |
| AR ME 2004-053 | 11E/05D | Allen, L J |
| AR ME 2004-054 | 11F/14A | MacLeod Resources Limited |
| AR ME 2004-055 | 11E/02A | Acadian Gold Corporation |
| AR ME 2004-056 | 11F/05B | Acadian Gold Corporation |
| AR ME 2004-057 | 11F/05A | Acadian Gold Corporation |
| AR ME 2004-058 | 11F/04D | Acadian Gold Corporation |
| AR ME 2004-059 | 11D/14C | McIntyre, A |
| AR ME 2004-060 | 11F/05A, B | Acadian Gold Corporation |
| AR ME 2004-061 | 11E/02A | RJZ Mining Corporation |
| AR ME 2004-063 | 11E/01A | Meguma Resource Enterprises Incorporated |
| AR ME 2004-064 | 21H/07A, B | Van Dommelen, R |
| AR ME 2004-065 | 21A/07C | Goldenville Mining Corporation |
| AR ME 2004-066 | 21A/07C | Goldenville Mining Corporation |
| AR ME 2004-067 | 11F/04C | Forgeron, D |
| | 11F/05B | |
| AR ME 2004-068 | 11F/14A | Richman, J |
| AR ME 2004-070 | 11E/02D | Acadian Gold Corporation |
| AR ME 2004-071 | 11E/01D | Goldenville Mining Corporation |
| | 11E/08A | |
| AR ME 2004-078 | 11E/06C | Hudgins, A D |
| AR ME 2004-092 | 11E/11B | Cobequid Gold Corporation Limited |
| AR ME 2004-093 | 11E/11A | Cobequid Gold Corporation Limited |

*Susan Saunders and Norman Lyttle*

# Scenes of Geological Interest: The Rocks of Arisaig

Arisaig is located north of Antigonish on highway 245. The coastal exposures of bedrock shown in Figure 1 can be accessed from Arisaig Point or Arisaig Provincial Park.

The Arisaig shoreline connects with the sea in many ways. The exposed rocks were deposited along the edge of a continent in the Iapetus Ocean 440 million years ago (Ma) and have a rich collection of fossil marine life. Wave action prior to the last ice age produced a level, wave-cut platform covered by beach gravel 3 to 5 m above sea level. Present day wave action is creating sea cliffs and another wave-cut platform.

At the beginning of the Silurian Period (about 440 Ma), the land surface was slowly subsiding and being covered by the waters of the Iapetus Ocean. With a few exceptions, the rocks from Arisaig Park southwestward to McAras Brook (about 4 km) represent the deposition of mud, silt and sand on a shallow continental shelf in water depths of 10 to 200 m. This ancient environment persisted through 23 million years. The abundance of fossils suggests that the ocean water was rich in food and oxygen, and well circulated by currents. A period of time existed, however, when some of the rocks exposed in Arisiag Park show no evidence of life: no fossils, no burrows and no surface feeding trails. Geologists interpret these observations to indicate that bottom currents stopped circulating oxygen and nutrient-rich water, thereby killing most life forms. Later the currents resumed their movement and life flourished again.

Fossils tell geologists a lot about the ancient environment. The photograph of the diorama from the Nova Scotia Museum of Natural History (Fig. 2) shows the reconstruction of a sea floor dominated by large and small sand waves, which were generated by storms. These storm waves 'touched' bottom and moved the sediment into parallel ridges (sand waves). Crinoids (sea lilies) and various plants anchored themselves on the sand ridges. Small fish were present as well as nautiloids, trilobites, snails, brachiopods, clams, bryozoans and graptolites. By burrowing into the soft sediment of mud, silt and sand on the sea floor, clams and worms greatly disturbed the layers of sediment. These disturbed layers of rock can be seen in outcrop near Arisaig Brook.

***Figure 1**. Beach exposures looking northeast toward Arisaig Point. The bedrock records a Silurian (440 million years old) coastal shelf environment. White lines represent erosion by waves about 130,000 years ago, before the last glaciation.*

***Figure 2**. Reconstruction of the sea floor during the Silurian Period at Arisaig (illustration courtesy of the Nova Scotia Museum of Natural History).*

The coastal exposures exhibit more of the sea-related geological history. As you

*continued on page 8*

# Prospectors as Ambassadors

The work of prospectors is an essential component of successful mineral exploration. It has occurred to me that prospectors have another essential role. As I was reading articles in mining trade journals in the DNR library I realized that many journals are urging readers to communicate with their stakeholders. They urged readers to take a more active role in communicating, for example, how a quarry operates, where mineral commodities go after they are mined, or how mineral commodities are used to enrich our lives. My thoughts then connected with prospectors and their potential roles as communicators and ambassadors.

Most times it is the prospector who meets a land owner. For the land owner, the prospector is often the first 'real person' that he or she meets as exploration begins on a particular property. This is an important meeting. Not only do you seek permission to enter the land, as required by the *Mineral Resources Act,* but you have a chance to talk with the land owner about what you are doing.

This and subsequent meetings may offer the opportunity to describe in more detail what exploration is and how it fits into the mineral industry. I often think that many people perceive a disconnection between exploration and other parts of the industry. Everything begins with exploration, then continues with development, mining, mineral-based manufacturing, recycling of mineral products, reclamation and rehabilitation, and site monitoring. Describing the role that exploration plays in the mineral industry is important, but there are other important messages to be conveyed.

In my opinion there are three basic messages that promote the mineral industry. These have formed the core of presentations that I have made to teachers, students, decision-makers and the general public. These messages are:
(1) minerals, mining and mineral-based manufacturing are essential to our way of life;
(2) the mineral industry generates wealth and employment; and
(3) mining and other parts of the mineral industry are environmentally sensitive and follow government regulations.

Those of you who are prospectors often have an opportunity to talk informally with land owners or other groups about the mineral industry and your work. As you do this consider using one or more of these three messages. Take the time to talk about what you do and why. Answer questions, and in doing so you may begin to unravel myths and help people recognize the importance of the mineral industry. Although you will never be addressed as "Your Excellency," just consider that you are nonetheless an ambassador for the industry.

*Howard Donohoe*

*Arisaig, continued from page 7*

view the cliffs, you will see flat tops as shown in Figure 1. This flat surface is a wave-cut platform eroded by the sea 130 000 years ago during a warm period before the last ice age. When the climate cooled enough to begin the next ice age, glaciers covered the region and deposited several layers of till (non-layered mud, sand and gravel) on top of the beach gravels. When the glaciers melted and retreated away from the province about 11 000 years ago, the land rose allowing the sea to attack the bedrock, creating sea cliffs and another wave-cut platform.

Arisaig is a region of great geological interest. When you visit, go to the park and visit the interpretation and information kiosk for more details about the area's geological history and fossils. Arisiag is one of many areas of Nova Scotia worth a visit. The new *Geological Highway Map of Nova Scotia* is an excellent guide to the province's many sites of geological interest.

*Howard Donohoe*

## *Special Note*

**Report of Activities 2005**
The Mineral Resources Branch Report of Activities 2005 (Report ME 2006-1) is available from the DNR Library, 3rd Floor, 1701 Hollis Street, Halifax. The report comprises 200 pages (46 in full colour) and costs $20.

## *Dates to Remember*

**August 17-20, 2006**
Nova Scotia's Gem & Mineral Show 2006, Lion's Recreation Center, Western Ave., Parrsboro, Nova Scotia. For more information on the 40th Anniversary of this event, visit the web site: http://museum.gov.ns.ca/fgm/mineralgem/show.html.

**November 2-4, 2006**
Mineral Resources Review 2006, Newfoundland Department of Natural Resources, and Fall Meeting of the Newfoundland Branch CIM, Delta St. John's Hotel, St. John's, Newfoundland. For more information contact Norn Mercer (709-729-6193).

**November 6-8, 2006**
Exploration and Mining New Brunswick 2006, Delta Hotel, Fredericton, New Brunswick. For more information e-mail: carol.mcneil-dobbelsteyn@gnb.ca.

**November 9 and 10, 2006**
Mining Matters 2006, Westin Nova Scotian Hotel, Hollis Street, Halifax, Nova Scotia. For more information see the article on page 4 or contact Paul Smith at 902-424-2526.

**April 29-May 2, 2007**
2007 CIM Conference and Exhibition, Theme: Energy and Mines, Organized by the Canadian Institute of Mining, Metallurgy and Petroleum, Palais des congrès de Montréal, Montréal, Canada. For more information contact : Jean-Marc Demers, 514-939-2710, e-mail: jmdemers@cim.org, or visit the web site: www.cim.org.