



The Mining Society of Nova Scotia

120th Annual General Meeting - 2007 -

Theme: "Mining Nova Scotia – In Support of a Rich Diversity"



Vol: 2007-1



The Mining Society of Nova Scotia

120th Annual General Meeting Abstract Volume 2007-1

Theme: "MINING NOVA SCOTIA – IN SUPPORT OF A RICH DIVERSITY"

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Dundee Resort & Golf Club, Dundee, Nova Scotia June 14th – 16th, 2007

A Message from the President

Moving Forward

How quickly a year can come and go in the lives of busy people. As my presidential year concludes, I can reflect and acknowledge how amazing my personal growth in both the mining sector and the *Mining Society of Nova Scotia* has been. I am compelled to acknowledge and thank so many of you for helping me along the way.

One year ago, at our June 2006 AGM in Dundee, we wrestled with the very existence of our organization, its association with the *Chamber of Mineral Resources of Nova Scotia* and our relationship with *Canadian Institute of Mining and Metallurgy (CIM)*. This recognition by the executive, as well as the entire organization, that we had to take a close look at ourselves to determine our future direction was long overdue. There were members in the *Society* that felt we would be best served by a single organization, while others were less certain. However, when our organization was confronted with such a blunt and tough decisions regarding our future, the committee tasked with sorting it out got the job done!

As part of that committee, I can assure members in the *Society* that every option was laid on the table for consideration. I can also attest that some of those meetings were rather confrontational as a high degree of passion was expressed on behalf of both organizations. These differences of opinion had nothing to do with the desire of either organization to solidly support the industry, but rather on the priorities of delivering that assistance to our mining and mineral industry, and weather it could be best done with one organization or with two.

Upon writing this message, your committee was unanimous in its decision to maintain the *Mining Society* of Nova Scotia as a separate and unique organization, distinct from the *Chamber of Mineral Resources of* Nova Scotia. In its resolve to unify support for all sectors of the industry, the committee of the *Mining* Society presented a Memorandum Of Understanding (MOU) to the *Chamber* suggesting that the two groups work in cooperation for the benefit of all concerned. In support of this MOU, the Society will purchase a membership in the *Chamber* and in doing so will secure a seat on the Board of Directors. An executive member from the *Chamber* will also sit as a Director of the *Mining Society* once fully implemented.

After a year of ongoing discussions, it is now obvious how vital a role the *Mining Society* has to uphold for the mining and mineral industry of Nova Scotia. Your Society will continue to remain the longest running mining organization in the country and its members will enjoy all the benefits of the *CIM*. It is vital that we all work harder, and in closer cooperation to support this critical and essential resource sector. Only though the continued dedication of our strong membership can we hope to achieve positive changes in our industry. It is important for our collective well being, that well-balanced education programs are put in place so that all residents of Nova Scotia understand the benefits of our resources and our activities. As an industry, we work in three dimensions and we need residents of Nova Scotia to understand that fact.

So, after a long year of debate on merging, the Mining Society of Nova Scotia is here to stay.

Paul K. Smith President

THURSDAY AFTERNOON TECHNICAL SESSION, JUNE 14th

Chairman, Paul Smith, President, The Mining Society of Nova Scotia Theme: "Technical Excellence"

1:30 - 2:00	Business meeting
2:00 - 2:30	John Calder, Mineral Resource Maps for Nova Scotia: A New Tool for Land Use Decisions
2:30 - 3:00	Ian Flint, Market Study on Graphite
3:00 - 3:30	Coffee Break
3:30 - 4:00	Tim Webster, LIDAR Technology for Resource Evaluation
4:00 - 4:30	Darren Nichols, Xstrata Coal Project Update
4:30 - 5:00	Diane Ingraham, Gas Know-how is our Business

THURSDAY EVENING, JUNE 14th

6:30-7:30PM	President's Reception, Cash Bar
7:30-9:30PM	Awards Dinner, Guest Speaker – Frank Potter, (President, Sydney Tar Ponds Agency)
9:30-12:00Midnight	Entertainment: Cyril MacPhee – Dance and Cash Bar

Friday, June 15th

FRIDAY MORNING TECHNICAL SESSION Theme :"Nova Scotia Showcase – Sand to Gold"

Chairman, Dan MacDonald, First Vice President, The Mining Society of Nova Scotia

- 8:30 9:00 **Bob MacDonald**, Reclamation of the Victoria Junction Site
- 9:00 9:30 John Wightman, The Boisdale Hills Flake Graphite
- 9:30 10:00 Wally Bucknell, & *Peter Carter, Developing the Touquoy Gold Project As Carefully as Possible.
- 10:00 10:30 ----- Coffee Break -----
- 10:30 11:00 **Matt Ferguson**, The Application of High Resolution Laser Altimetry to Deglaciation.
- 11:00 11:30 Jeff Langley, Keltic Petrochemicals Project Update
- 11:30 12:00 **David Forrester,** Common Core Competencies in Underground Coal Mining in Canada

12:00 – 1:30 Mining Society Luncheon

FRIDAY AFTERNOON TECHNICAL SESSION Theme: "What's Coming"

Chairman Gordon Dickie, Second Vice President, The Mining Society of Nova Scotia

- 1:30 2:00 **Greg Isenor,** Merrex Gold Inc., Exploring its Jubilee Zinc Project in Cape Breton, NS Project Update
- 2:00 2:30 Garth Demont, Changing Attitudes: A New Approach.
- 2:30 3:00 Alan Davidson, Scotia Mine, Open Pit Development and Mill Rehabilitation 2007.
- 3:00 3:30 ----- Coffee Break -----
- 3:30 4:00 Wally Ellison, Sandstone and its Uses, an Historical Perspective
- 4:00 4:30 **Peter Atkinson,** Uranium Review

SATURDAY MORNING - JUNE 16th

7:30-10:30AM Council Meeting and Breakfast, West Bay Room,

OFFICERS FOR 2006-2007

PRESIDENT	Paul Smith
1st.VICE-PRESIDENT	
2ND.VICE-PRESIDENT	Gordon Dickie
SECRETARY-TREASURER	George Sigut
Councillors: John C. Campbell, Bill Shaw, Bob MacDonald, A	lan Davidson, Greg Isenor,

Will Felderhof, Wayne LeBlanc, Dave Forrester, Roy Mosher, Francis Gillies, Sam Schwartz

Ex-officio: Fenton Isenor - Past President Deputy Minister, N.S. Dept. Natural Resources

GUEST PROGRAM - FRIDAY AFTERNOON, Bras D' Or Room

2:00 – 3:30 Special guest: Cape Breton Artist, **Marie Moore**

President: Paul K. Smith (2006-2007)



Paul has been employed with the Nova Scotia Department of Natural Resources in Halifax since 1975 where he has been a senior gold geologist for more than 25 years. He has been responsible for the initial recognition of pervasive, large-scale alteration associated with Nova Scotia's most sought after precious mineral resource and has been instrumental in categorizing the styles different of gold mineralization in the southern part of the Province. To actively promote the highly prospective potential of these gold deposits, Paul had travelled throughout Canada, USA, Australia and New Zealand to deliver scientific presentations and

collaborate with foreign colleges, both abroad and at home. Recently he assumed the role of Liaison Geologist for the Department of Natural Resources in Halifax. In this capacity Paul is the first point of contact for new and established companies entering the province to conduct mineral exploration. He graduated from Acadia University in 1973 with a BSc in geology and after working briefly for Barrymin Exploration in Quebec, returned to Acadia to complete an MSc on structural geology in 1976. Following work on a number of stratigraphic, structural, tectonic and geochemical projects, Paul convinced the then, Department of Mines to start a gold research program, which continues today. Together with his wife Heather Noseworthy-Smith, and their two children, Cochrane and Kinsella, they reside in a quiet, South Mountain country home adjacent to the Annapolis Valley and overlooking the Minas Basin.

As 2006-2007 President of *The Mining Society of Nova Scotia* my goal is to accomplish three major tasks. Firstly, I want to build a stronger, more efficient and effective Society, having a cooperative working relationship with the National CIM and the Chamber of Mineral Resources of Nova Scotia. Secondly, I hope to see the total membership of the Society increase by showing how beneficial this Society is to the industry of Nova Scotia. Thirdly, I will work hard to create a more efficient and timely communications plan to keep all members up to date on information important to the mining and mineral industry across the Province, as well as news from, and about, our various members.

E-mail: <u>pksmith@gov.ns.ca</u> Phone: (902) 424-2526





Dan MacDonald, M.A.Sc., P.Eng.

Dan MacDonald was born in Sydney, Nova Scotia, and raised in Sydney River, Nova Scotia. Dan attended Riverview Rural High School, graduating in 1969. In 1972 Dan received his engineering diploma from St. Francis Xavier University and subsequent in 1973 a B.Sc. from St. Francis Xavier University. In 1975 Dan received a Bachelor of Civil Engineering from Nova Scotia Technical College and in 1987 a Master of Applied Science in Structural Engineering from the Technical University of Nova Scotia.

Dan began his engineering career in 1975 with Public Works Canada as a Marine Design Engineer working on major docks and ferry terminals in Atlantic Canada. In 1981 Dan joined the Cape Breton Development

Corporation as Senior Project Engineer; eventually becoming the Corporation's Chief Civil Engineer and was involved in the Phalen and Donkin mine development, along with rebuilds of the International Pier and Prince Mine. In 1989 Dan joined the consulting engineering field of practice, specializing in marine and mining projects. Presently, Dan is involved as the Engineering Manager for the Tar Ponds clean up project and is the lead engineer for the surface pre-feasibility study for the Donkin Mine.

Dan lives in Coxheath, Nova Scotia, with his wife Kathy and has four grown children, Brennan, Santiago Chile; Leigh, Glace Bay, NS; Melissa, Calgary, AL and Megan, Halifax, NS. Dan's hobbies include house renovations, woodworking, various sports, and travelling.



1st Vice President

Gordon Dickie graduated from Dalhousie University in 1975 with an Honours B.Sc. in Geology. He currently works with The Shaw Group Limited in the position of General Manager-Shaw Resources. His work experience includes Nova Scotia Department of Natural Resources as project geologist, Senior Geologist with Billiton Canada and Senior Geologist with Shell Canada. In the latter two positions, he was responsible for tin, tungsten and uranium

exploration projects in Atlantic Canada. During his 17 years with Shaw Resources, Gordon has undertaken a variety of projects including a portable grinding mill, export of Glace Bay slag, Bayside Aggregate and fly ash. He has held several management positions, including Business Manager of Nova Scotia Sand & Gravel and its Transport functions. Gordon is a Director of the Chamber of Mineral Resources of Nova Scotia and a Councillor of the Mining Society of Nova Scotia. Interests outside of work include, among other things, travel, old cars and Cape Breton fiddle music. Gordon lives in Dartmouth with his wife Lynn and has two daughters Caroline and Colleen.

E-mail: gdickie@shawresources.ca



Bob MacDonald, a native of Pomquet, Antigonish County, Nova Scotia graduated from St.FXU in 1979 with an Engineering Diploma, TUNS in 1981 with a Bachelor of Mining Engineering and West Virginia University in 2000 with a Masters of Science in Mining Engineering. He has been employed with the Cape Breton Development Corporation since 1981 and held various positions in project engineering and management throughout his career. Bob has authored or co-authored thirteen articles on changing technology and ground control techniques in coal mines. He is currently the Director General Property and Environment; responsible for overseeing the closure requirements including remediation and reclamation of more than fifty sites that have been impacted by coal mining activities.

Abstract: The Victoria Junction (VJ) Coal Preparation Plant

The Victoria Junction (VJ) Coal Preparation Plant is a large complex located just east of Sydney, Nova Scotia. The complex includes the coal preparation plant, related stacking and transfer facilities, a large waste rock pile, lifting and banking centre, as well as, various offices, shops and warehouses in the immediate proximity of the plant.

The primary environmental concerns with the decommissioning relate to the cleanup of the contaminated areas and the management of acid drainage from the site. General site cleanup and removal of inventories and materials (e.g. contaminated soils) will be a requirement. There are a number of above ground and below ground storage tanks, which need to be emptied and removed as well as the collection and removal of contaminated soils around these tanks. Collection and treatment of acid mine drainage continues until the affected

Environmental assessment activities began on the site in 2001 with the monitoring of surface and groundwater drainage patterns. In 2003, a number of submersible pumps were installed, in what today, are called the pump and treat wells, located on the north side of the coarse waste pile adjacent to the North West Brook Wetland. These wells pump contaminated water from the intermediate ground water table to the surge pond on site and then to a treatment plant. Demolition began in 2004, and all major structures were demolished by 2005 and the material was removed from the site and sold for scrap. In the fall of 2005, a contract was let to place a multi-layer engineered cover on the coarse waste pile. This was completed in January 2007. Other activities in 2006 and 2007 include consolidation of acid generating material, grading, application of engineered covers and surface drainage features. Residual activities include assessing the site for the final water treatment requirements and developing a Site Management Plan to monitor performance of the covers, engineered features and the surrounding eco-systems.

Wally Bucknell & *Peter Carter, Atlantic Gold NL

"Developing the Touquoy Gold Project – as carefully as possible".

Atlantic Gold NL (ATV) became involved in the Touquoy Gold Project in mid-2003. In the four years since, ATV has carefully developed the Project towards a mining decision, expected to be made by the end of 2007, on three fronts – technical, environmental and social.

From sampling and assaying methodology of drillcore, through metallurgical and comminution testwork to geotech drilling for pit design ATV has endeavoured to accurately evaluate the technical parameters relating to the in-pit resource. Appropriate plant design, site layout, tailings management and effluent treatment systems and other processing functions have been carefully planned.

Environmental baseline studies have been in progress for almost three years and are continuing. Acid base accounting and long-term leach testwork on waste rock and tailings have been comprehensive. Potential for acid rock drainage is negligible and statutory effluent regulations will be readily satisfied. Environmental impact of the Project will be low. Site rehabilitation will be conducted concurrently with the operation.

ATV has engaged the local communities and conducted three public information sessions since 2004. ATV is keen to appoint a local workforce. The Project has been well received. Further community consultation is in progress and will be ongoing.

Atlantic Gold aspires to develop and operate the Touquoy Gold Project at a standard exemplary to the Canadian mining industry and to the benefit of all stakeholders.

Wally Bucknell, Executive Director of Atlantic Gold NL.

Wally has over 35 years' experience in mineral exploration in Canada and Australia. During 14 years in Canada, he explored for a range of minerals and discovered the Cape Ray gold deposit in Newfoundland. After returning to Australia in 1984 he joined Plutonic (then Noranda Australia), from 1989 as the General Manager Exploration leading a team of more than 50 geologists in a major expansion of Plutonic's gold resources. Between 1989 and 1998, the exploration team discovered over 10 million ounces of gold. Wally was awarded AMEC's Prospector of the Year in 1999 for the discovery of the 2 million ounce Centenary deposit at Darlot in Western Australia and other discoveries.

He has been CEO of Atlantic Gold for the past eight years having managed several gold and diamond exploration projects in Australia prior to Atlantic's involvement in the Touquoy Gold Project.

* = Speaker

MINING SOCIETY OF NOVA SCOTIA - 120^{TH} ANNUAL GENERAL MEETING JUNE 14 – 16, 2007

"Mining in Nova Scotia – In Support of a Rich Diversity"

ATLANTIC GOLD

Australia Canada

A hidden gem of a company

MINING is all about uncovering hidden gems. Investing is much the same - find a story that not too many investors have taken notice of and you have the chance to gain the maximum possible upside

Australian company Atlantic Gold, formerly known as Diamond Ventures, appears to be one of those hidden gems

With a New South Wales head office and flagship project in Canada, Atlantic has slipped below the radar of most investors

With a market value of less than A\$17 million, it seems few investors have picked up on the fact Atlantic is sitting on a project with a 571,000 oz gold resource, is in the middle of a feasibility study and could be a gold miner generating substantial cashflow in the next couple of years.

Investors also like to follow 'people'. People who have been successful in the past are highly likely to be successful again and can develop guite a following. This is another tick in the box for Atlantic.

The company is run by former executives and directors of the highly successful Australian gold mining company Plutonic Resources. Plutonic was floated in 1985 with a market capitalisation of A\$45 million.

Just over a decade later it was taken over for more than 20 times that by US gold major Homestake Mining Company (itself later swallowed by Canadian giant Barrick Gold).

Ron Hawkes, now chairman of Atlantic, was chief executive of Plutonic and oversaw the discovery of 11 Moz of gold at a discovery cost of just A\$14/oz.

Executive director Wally Bucknell was also named Prospector of the Year by Australia's Association of Mining and Exploration Companies in 1999 for the 2 Moz Centenary gold discovery at Darlot, in Western Australia.

Atlantic's flagship project is Touquoy in the Canadian province of Nova Scotia, Canada. In May 2003 Atlantic entered into a farmin agreement to earn up to a 75% interest in the project by spending C\$2.2 million by December 31, 2005. Atlantic has built up a resource of 571,000 oz of gold and is in the final stages of a feasibility study aimed at proving the economic viability of a 90,000 oz/v mine.

Already, scoping studies have proven highly encouraging to the board, based on a project producing 90,000 oz/y over a life of seven years, which assumes modest reserve additions. Atlantic has forecast cash costs of US\$260/oz and total costs of US\$336/oz. With an estimated capital cost of CS50 million the

NOVA SCOTIA GEOLOGY

project generates a 30% after tax internal rate of return, a net profit after tax of C\$58 million and a payback in just under 21/2

All those figures are now being fine-tuned as part of the full feasibility study, but so far the work has not thrown up any surprises, according to Mr Bucknell. "This is shaping up as a very attractive project, whichever way you look at it," he says.

"We have a substantial single in-pit resource of 6.9 Mt grading 2 g/t for 430,000 oz of recovered gold, (plus there are additional satellite deposits and massive regional exploration upside.)

There is a low waste-to-ore ratio, the host rocks are soft and easily mined and we are getting excellent metallurgical recoveries in all of our test work.

"We are in a favourable mining-friendly location with good infrastructure and a keen local workforce and we are in a welcoming investment environment with negligible sovereign risk.

Basically, if this project was in the Eastern Goldfields of Western Australia it would have been mined quite some time ago."

The Nova Scotia gold rush started in 1861 and continued more or less until World War I. About 60

TOUQUOY

GOLD DEPOSIT

underground quartz vein-hosted gold deposits

similar in style to that found in Bendigo and Ballarat in Victoria, Australia, were mined for a reported production of 1.2 Moz.

A

Greywacke, slate

Gold deposit

or greywacke

100 km

Slate, m

The Touquoy deposit, however, stands apart from these deposits in that the gold is disseminated through out the host sediments and is essentially unrelated to guartz veining.

The very wide drill intersections of gold mineralisation at Touquoy, some more than 100 m, therefore set this deposit apart from the typical style of deposit as a substantial, open-pit, bulk mining proposition, perfect for the skill-set of the Australian miners.

Atlantic has also been able to capitalise on a host of drilling information from previous exploration since the 1980s, including WMC's former Canadian gold exploration company Seabright Exploration.

While the prospect was never fully explored, WMC did drill a lot of holes and the existing diamond cores and drill data have proved invaluable to Atlantic.

Atlantic is also buoyed by Nova Scotia's long history of mining commodities such as gypsum, coal, zinc, limestone and tin.

Atlantic fully expects to be able to source a skilled

THE TEAM

RON HAWKES Chairman

Mr Hawkes, a geologist and Canadian by birth, has over 40 years' experience in the mining industry, his first 22 years with Noranda in Atlantic Canada and Yellowknife, NWT. He moved to Australia in 1980 to direct Noranda's Australian operations where he became founding managing director of the highly successful gold explorer and miner, Plutonic Resources. Under the guidance of Mr Hawkes Plutonic grev from a market capitalisation of A\$45 million in 1985 to more

than A\$1 billion in 1998 when it was acquired by Homestake. At that time it was Australia's second largest gold producer with five open-pit and underground mining operations in Western Australia and producing more than 500,000 oz/y.



WALLY BUCKNELL **Executive director**

Mr Bucknell is a geologist and has over 36 years' experience in the mining industry, including 14 years in Canada, eight of those exploring in Atlantic Canada with Rio Algom. He joined Noranda Australia in 1984 and subsequently became general manager exploration of Plutonic Resources. While at Plutonic Mr Bucknell and his exploration team discovered over 11 Moz of gold, including the 2 Moz blind deposit at Centenary in Western Australia, at a discovery cost of A\$14/oz. Mr Bucknell was named Prospector of the Year by Australia's Association of Mining and Exploration Companies in 1999.



Mining Society of Nova Scotia - 120^{TH} Annual General Meeting June 14 – 16, 2007

"Mining in Nova Scotia – In Support of a Rich Diversity"

Atlantic Gold

PROFILE

NOVA SCOTIA NOVA SCOTIA Halifax TOUQUOY PROPERTY

TOUQUOY PROJECT RESOURCE (100% BASIS)

ng Tourquoy diamond drill cor

Au

	Resource	Grade g/t	Contained Au oz
Touquoy			
Indicated resource	4.44 Mt	2.1	300,000
Inferred resource	2.47 Mt	2.2	172,000
Total Touquoy	6.91 Mt	2.1	472,000
Touquoy West			
Indicated resource	870,000 t	1.9	54,000
Inferred resource	650,000 t	2.2	45,000
Total Touquoy West	1.52 Mt	2.0	99,000
Total mineral resource	8.43 Mt	2.1	571,000
Note: Lower cut off 1 g/t			

strong mining culture the local authorities and communities welcome new developments. Mr Bucknell is genuinely excited

workforce for Touquoy and with a

about the regional exploration upside in and around the Touquoy district, which has reported historical production plus reported resources of almost

> 2 Moz. "There are many gold workings in the area discovered by past prospectors," he says. "The area is

generally covered by glacially transported sand and gravel which has proved a real challenge to past prospectors and as a result no new discoveries have been made in a hundred years.

"Atlantic is rotary air blast drilling through this cover in a systematic way and already has had positive results at nearby Caribou."

Atlantic now holds 1,000 km² of claims within the highly prospective and under-explored district.

As well as Touquoy, Atlantic has a suite of other exciting projects. The Ellendale joint venture is a strategic holding within the Ellendale diamond field in the Kimberley region of Western Australia. It is 10 km north of the diamond mine operated by Australian company Kimberley Diamond Company. Atlantic is the manager and operator of the joint venture and holds 53% interest with KDC spin-off Blina Diamonds holding the remainder. The property covers 20 partially explored lamproite pipes and some 5 km of diamondiferous alluvials from which a preliminary bulk sampling assessment recovered 48 diamonds weighing 16.43 ct.

Atlantic also holds a 50% stake in the Kookynie gold project in Western Australia's Eastern Goldfields, about 200 km north of the historic mining centre of Kalgoorlie. The project has total indicated

resources of 481,000 t grading 4 g/t for 61,700 oz of gold in four deposits.

Finally, the Beaconsfield gold project in Tasmania covers about 10 km of unexplored northern projection of the Beaconsfield mine sequence, which has historically produced more than 1.6 Moz of gold and currently produces around 125,000 oz/y at a head grade of 17 g/t for its owners.

It is often difficult to get Australian fund managers and investors interested in an overseas project. But as the Touquoy gold project proceeds to completion of the feasibility study, and first production, and when combined with continued exploration success, Atlantic is poised for a possible substantial market rerating.

VITAL STATISTICS

Name: Atlantic Gold

Address: Suite 701, 220 Pacific Highway, Crows Nest, NSW 2065, Australia E-mail: enquiries@atlanticgold.com.au Website: www.atlanticgold.com.au

CONTACTS

Executive director: Wally Bucknell CFO: Brian Bolton Tel: +61 (0) 29929 6633 Fax: +61 (0) 29929 9366

SHARE INFORMATION Listed: ASX Ticker: ATV Shares in issue: 138 million fully paid

ordinary shares Market capitalisation: A\$17 million

12-month trading average: 10.4 c per common share Shareholders: RJ Hawkes 14.5%

Net cash: A\$1.2 million

ASSOCIATES Legal Counsel: Deacons Auditor: KPMG

PEER GROUP Alkane Exploration Andean Resources

WORLD MINING STOCKS November 2005 19



13

John Hugh Calder

CURRICULUM VITAE

Employment History

1977 - Present: Nova Scotia Department of Natural Resources

- Senior Geologist (IV) 2006 present
- o Interim Manager, Coal Resources Section 08/1994-03/1995
- o Regional Geologist (III) 1986-2006
- o Geologist (II) 1977-1985.

1976-1977

o Esso Minerals (Gays River Mine); Kerr Addison

1996-present: Faculty of Geology (Part-Time), Saint Mary's University (courses: Global Change; Planet Earth; Principles of Geology; Paleobotany; History of Life)

Education

- 1991 Ph.D. (Earth Sciences), Dalhousie University
- 1976B.Sc., Saint Mary's University

Distinctions

- o Gesner Medal: Atlantic Geoscience Society Distinguished Scientist Award (2005).
- Distinguished Lecturer, Atlantic Provinces Inter-University Committee on the Sciences (APICS)/Atlantic Geological Society (2000).
- National Geographic Society, Washington, D.C.: *Research and Exploration Committee Grant* (1999-2000).
- Geological Society of America:
 - _ Chair, Coal Geology Division (1996)
 - _ Elected Fellow (2001).
 - _ Best Paper Award, Geological Society of America Annual Meeting, Denver (2002).
 - International Journal of Coal Geology, Amsterdam: Editorial Board (1995 2001).
- o NATO: Collaborative Research Grant (with A.C. Scott and M.R. Gibling, 1994-1995).
- o Smithsonian Institution, Washington, D.C.: Visiting Scientist Fellowship (1993).
- o Center for Applied Energy Research, University of Kentucky: Visiting Scientist (1993).

Affiliation

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Nova Scotia Department of Natural Resources 1701 Hollis Street, P.O. Box 698, Halifax Nova Scotia, Canada B3J 2T9 (902) 424-2778 (Phone) (902) 424-0527 (Fax) (E-mail): jhcalder@gov.ns.ca Mining Society of Nova Scotia - 120^{TH} Annual General Meeting June 14 – 16, 2007

"Mining in Nova Scotia – In Support of a Rich Diversity"

Recent Publications (178 in total)

Calder, J.H. and Boon, J. 2007. Nomination of the Joggins Fossil Cliffs for Inscription on the World Heritage List, 129 p..

Calder, J.H. 2006. 'Coal Age Galapagos': Joggins and the Lions of Nineteenth Century Geology. *Atlantic Geology*, **42**, 37-51.

Calder, J.H., Gibling, M.R., Scott, A.C. and Hebert, B.L. 2006. A fossil lycopsid forest succession in the classic Joggins section of Nova Scotia: paleoecology of a disturbance-prone Pennsylvanian wetland. *In* S.F. Greb and W.A. DiMichele (editors), *Wetlands Through Time*. Geological Society of America Special Paper 399, 169-195.

Rygel, M.C., Calder, J.H., Gibling, M.R., Gingras, M.K. and Melrose, C.S.A. 2006. Tournaisian forested wetlands in the Horton Group of Atlantic Canada. *In* S.F. Greb and W.A. DiMichele (editors), *Wetlands Through Time*. Geological Society of America Special Paper 399, 103-126.

Calder, J.H. 2006. Geological sites and World Heritage's concept of 'outstanding universal value': weighing the worth and relevance of geological heritage. Geological Association of Canada Annual Meeting, Montreal. **Calder, J.**, Samuelson, H. and Boon, J. 2006. Learning how to tell the story of a prospective geological World Heritage Site: rejoining art and science at Joggins. Atlantic Geoscience Society Annual Colloquium, Wolfville. **Calder, J.H.** 2006. The Fossil Cliffs of Joggins: Towards World Heritage Designation. Nova Scotia Department of Natural Resources Open File Illustration ME 2006-001.

Mineral Resource Maps for Nova Scotia: A New Tool for Land Use Decisions

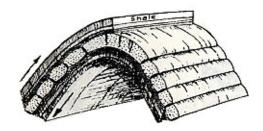
John H. Calder

Land use policy requires decisions on the best use of that land for the future well being of the people of the province. To date, input pertaining to mineral resources has been hobbled by the lack of comprehensive maps that can help guide such decisions. Soon, this will change. The first in a series of GIS-based maps is now in draft stage, ready for review by Mineral Resources and regional staff. Prepared by Angelina Ehler of the Geological Information Services Section under the guidance of Brian Fisher, the first in the atlas series focuses on factual data pertaining to exploration and mining that provides a factual record of mineral resource development activity. The map draws on data from claim staking, mining permits and leases, drillholes, seismic exploration and past mining operations. The claim staking data is layered to reflect repeated staking activity during the period 1982-2006, and effectively maps out geologic trends of economic interest, strengthened by the other data sets. A supplementary data set of premoratorium uranium staking activity covers the years 1949- to 1982. The maps are produced in a set of four overlapping sheets at a scale of 1: 250,000.

A second map series will focus on defining mineral resource potential based on mineral occurrences, geological formations and metallogenic zones. It is hoped that these maps, based on carefully constrained information, will help to inform the decision making process involved in land use with respect to these important provincial resources. The maps also lay the foundation for future GIS-based information compilation on mineral resources, an area for which opportunities are virtually boundless.



Stilbite, Nova Scotia's designated mineral.



Folding, typical of what is observed throughout many places in Nova Scotia.



Miniature replica of a stamp mill crusher similar to that used throughout the gold districts of Nova Scotia.

Merrex Gold Inc. Exploring its Jubilee Zinc Project in Cape Breton, Nova Scotia – Project Update

Following the reorganization of Merrex Gold Inc. whereby it acquired the Jubilee Zinc Deposit the Company has aggressively pursued exploration of this key property. Success in the current drill program has confirmed management's long held belief in the potential for Jubilee to develop into a successful zinc/lead mine. The boom in metal prices is expected to continue for the foreseeable future with the prospects for zinc being especially encouraging.

Analogies may be drawn between the Jubilee Zinc/Lead Deposit and the "Irish Style" (structurally controlled) base metal deposits and, to a lesser degree, with the Mississippi Valley Type (MVT) deposit class. With 75 years of historic exploration combined with Merrex's current exploration results, Jubilee exhibits sufficient consistency in both the character and continuity of mineralization to suggest the potential exists to develop a resource tonnage of economic value.

Gregory P. Isenor, President and CEO, Merrex Gold Inc.



Gregory Isenor graduated from Acadia University in 1970 with a Bachelor of Science degree in Geology and is a member of the Association of Professional Geoscientists of Nova Scotia. Greg is currently the President and CEO of Merrex Gold Inc. and has over thirty years of mineral exploration experience as an independent consulting geologist in Canada, the United States, Australia, New Zealand, Asia, and Africa. Prior to taking control of Merrex Gold, Greg spent three years as President, CEO, and managing director of Jilbey Gold Exploration. In these roles, he secured for Jilbey the Bissa property in Burkina Faso and directed the exploration and discovery of the gold deposit there. Subsequently, he led the negotiation team during the takeover of Jilbey Exploration by High River Gold Mines Ltd. of Toronto, resulting in a tremendous financial success for the shareholders of Jilbey Gold. During Greg's work as an independent consulting geologist he has managed numerous drill programs

pertaining to the Jubilee base metal deposit and his hands-on experience will greatly assist Merrex in delineating additional resources at Jubilee.

Photos: Polished NQ diamond drill core from the Jubilee Pb-Zn Deposit, Merrex Gold Inc.



Alan Davidson, P Eng.

Mine Supt., Scotia Mine, ScoZinc Ltd. 15601 Hwy 224 Gays River RR # 1 Milford Stn., N.S., B0N 1Y0





Scotia Mine, Gays River, June 1st, 2007: Sand on top of the zinc-lead ore is being removed.

About Acadian Gold

Acadian Gold Corporation is a Halifax, Nova Scotia, Canada based resource company focused on exploring and developing gold and zinc properties in Atlantic Canada. The company is focused on two main projects; the <u>Scotia Zinc Project</u> and the <u>Scotia Goldfields Project</u>.

The Company announced that the Scotia Mine (zinc-lead) at Gays River, Nova Scotia, Canada has commenced operations. The mill is in the commissioning phase during which the mechanical components of the mill, related primarily to the crushing, grinding and flotation circuits, will be tested and proven to ensure that the flow of ore and treatment of materials is optimized. It is anticipated that the commissioning phase will be completed by late June to mid-July 2007 at which point the mill should be operating at the planned capacity of approximately 2,000 tonnes per day. During commissioning, daily throughput is expected to be in the range of 1,000 to 1,500 tonnes per day.

Acadian Gold is also currently focused on developing four advanced gold properties, Beaver Dam, Tangier, Forest Hill and Goldenville, which form the core holdings of the Scotia Goldfields project. All of the four advanced properties host gold resources described in technical reports prepared in compliance with National Instrument 43-101 and are available on <u>Sedar</u>. Acadian Gold is bringing a new approach to the development of Nova Scotia gold deposits by pursuing a multiple mine central processing, managing and servicing strategy.

The Company also recently announced that it has taken-up a large percentage of the common shares of **Royal Roads Corp.** Royal Roads' principal asset is a 16,075 hectare (approximately 32 km x 5 km) mineral property known as the Tulks North property which is strategically located in the centre of the world-class Buchans base metal camp in central Newfoundland, Canada.

In addition, Acadian subsiduary Royal Roads announced a friendly takeover bid of Buchans River Ltd. The Buchan's River acquisition will represent an expansion and strengthening of Acadian Gold's position in the Buchans base metal district in Newfoundland and Labrador, which is the focus of considerable exploration and development acitivity as well as the imminent opening of a new mine at Duck Pond by Aur Resources.

RESERVES AND RESOURCES - SCOTIA MINE						
RESERVES (Diluted and Recovered)	Tonnes	Zinc	Lead			
Proven & Probable	4,590,000	3.6%	1.7%			
RESOURCES (0.75% Cut-off) Inferred**	1,800,000	3.1%	1.1%			
GETTY DEPOSIT — 700 metres from Scotia Mine						
	etres from Scotie	n IVIIne				
GEIIY DEPOSII — 700 m RESOURCES Uncategorized Not 43-101 compliant [*]	etres from Scotie 4,500,000	1.9%	1.3%			

Scotia Mine

The Scotia Mine property comprises a mining lease covering 614 hectares and 91 contiguous mineral claims totalling 1,472 hectares located at Gays River, Nova Scotia, Canada. The project is strategically located with respect to infrastructure and tidewater, and is located 65 kilometres from Halifax, the capital city of Nova Scotia. The Scotia Mine assets include approximately 1400 acres of land (surface ownership), three discrete zinc-lead deposits, a processing plant capable of treating 2,000 tonnes of zinc-lead ore per day, ancillary support buildings and a fully permitted tailings facility.

All of the Scotia Mine assets are held through ScoZinc Limited, a 100% controlled subsidiary of Acadian Gold. In addition to the three known discrete zinc-lead deposits at Scotia Mine there is high potential for additional discoveries. A summary of reserves and resources for these deposits are found in the adjacent table.

The Scotia Mine has a current reserve sufficient for five years of open pit production and two and one half years of underground production from the Main Deposit and the Northeast Deposit respectively. Future work programs will be designed to extend the life of the Scotia Mine by determining the development potential of the 1.8 million tonne inferred resource in the Main Deposit and the 4.5 million tonne Getty Deposit, and as well to drill test highly prospective exploration targets in proximity to the mill.

Commissioning of the mill commenced late-April, 2007 with initial throughput of low grade material. The commissioning of the mill is expected to continue until early-mid July at which time it should be operating at full capacity

Production in 2007 is anticipated to be in the order of 23 million pounds of payable zinc and 7.8 million pounds of payable lead in zinc concentrates grading 60% zinc and lead concentrates grading 75% lead respectively. Based on a price of \$1.65/lb for zinc and \$0.90/lb for lead expected revenue for 2007 should be CDN\$24 million. Based on similar prices to those expected for 2007, 2008 revenue should be in excess of CDN\$70 million.

Cost per pound zinc equivalent in 2007 is estimated to be US\$0.52/lb., declining to US\$0.34/lb. in 2008. The higher cost per pound in 2007 reflects the pre-production stripping undertaken at start-up.

The Scotia Mine property is also host to a large, high-grade gypsum deposit, a portion of which will be stripped as waste to access the surface zinc-lead mineralization. While the feasibility study completed in July, 2006 treats the gypsum extraction as an operating cost, there is potential to turn this cost centre into a revenue centre.

Changing Attitudes- A New Approach

G. J. DeMont

Nova Scotia Department of Natural Resources, Box 698, Halifax, Nova Scotia, B3J 2T9

Land access and environmental permitting are two hot issues for mine and quarry developers in Nova Scotia. They are producing significant time delays in project development schedules and in many cases they are beginning to show up as growing expense items in project budgets. Given that we are working in a political world where green is becoming the colour of choice, this problem has potential to grow in dimensions unless a new approach is found. A methodology must be developed to change public, political and mining community attitudes if there is to be a mining industry in Nova Scotia in our short and long term futures. The Geological Services Division is working on a plan to address these issues. We have seen positive results since the plan was launched in 2000, but there is much work to be done and a decreasing number of hands to do it. *Partnership* is a word we must all learn to define and embrace.



The Mining Society of Nova Scotia 88 Leeside Drive, Sydney, NS, B1R 1S6

www.msns.cim.org/ phone or fax (902)567-2147

Application for Membership

Date of Application

Identification	

□ Ms. □ Mr.		st Name(s)	Family name			Date of Birth (YYYY-MM-DD)
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Send completed application to the Treasurer with cheque or Cdn money order payable to the "Mining Society of Nova Scotia" at the address above.

Membership in the Mining Society of Nova Scotia includes membership in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM).

Post AGM Information

Training Challenges for the Underground Coal Mining Industry in Canada

Dave Forrester¹, Fazal Hussain²

¹ Senior Research Fellow, Cape Breton University; ² Master's Student, University of Alberta)

ABSTRACT:

The Underground Coal Mining Safety Research Collaboration (the Collaboration) has now been active in Canada for over eight years and brings together industry stakeholders such as mine management, mine workers, government representatives and inspectors, and technical research representatives from Canadian universities. The main goal is to improve safety and health in underground coal mines in Canada by identifying and addressing related gaps in technology and knowledge.

This paper presents an overview of the current Training Project which addresses one aspect of growing concern within the Collaboration about issues associated with moving resources (personnel and equipment) within North America. The topic had been identified in the preceding Comparative Legislative Review project, specifically the need to review current approaches to determining qualifications and competency, especially for mine workers, supervisors and managers.

This project sets out to provide some answers to questions such as: What training requirements do the various jurisdictions set? How do they differ and why? What is industry best practice for ensuring adequate qualifications and appropriate training and experience to demonstrate sufficient competency to work safely and efficiently? The project team has sought to examine differences across the various jurisdictions, identify core commonalities and assemble available sources of related training materials. A Phase 2 of the project is now planned which will address preparation of 'common core' syllabus for underground coal mining in Canada.



Paul K. Smith, 2005

On behalf of the "Mining Society of Nova Scotia" the Executive would like to take this opportunity to thank all its sponsors for contributing to the success of our organization.

We also wish to thank all the volunteers for their dedication and hard work throughout the year, and leading up to this, our 120^{th} Annual General Meeting – June $14^{th} - 16^{th}$, 2007.

