The Geological Record

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Comments or questions? Please contact:

Doug MacDonald
Editor, *The Geological Record*
Nova Scotia Department of Natural Resources
P.O. Box 698, Halifax
Nova Scotia, Canada B3J 2T9
Phone 902-424-2510
Douglas.R.MacDonald@novascotia.ca

NOVA SCOTIA

Mineral Incentive Program Helps Prospectors with Marketing

The Nova Scotia Mineral Incentive Program provided $110,000 in funding to prospectors for exploration in 2015. The program also supports prospectors with marketing and promotional activities, including attendance at mining and investment conferences such as the Mineral Exploration Roundup in Vancouver and the Prospectors and Developers Association of Canada (PDAC) conference in Toronto. So far this year the Marketing Grant Committee has received some very good applications, and will be providing funds and booth space to the prospectors and projects listed below.

Ted MacNaughton: Long Lake molybdenum-tungsten target. This granophile element prospect is a result of late-stage leucocratic greisen development in the South Mountain granite. The site features ore-grade levels of tin, bismuth, lithium and silver, as well as molybdenum and tungsten.

Bob Stewart: The Kell's copper showing on the eastern Chedabucto Fault Zone is the epicenter of some great IOCG indicator minerals in the area, including copper, barite, specular hematite, siderite, ankerite and gold.

Perry MacKinnon: The former Stirling VMS Mine has a new drilling target on the northern extension of the mine. This polymetallic mine, hosting silver and gold as well as (mostly) zinc, could be coupled with the nearby Lime Hill zinc prospect to produce ore from two sources.

Joe Richman: The Cape Breton Highlands gold prospect keeps getting better. New assays from a zone investigated this fall averaged approximately 25 g Au/t, 75 g Au/t and 150 g Au/t. Other ore-grade material is spread over a very large zone.

John O'Sullivan: Widow Point open pit gold target. The area near Country Harbour Gold Mines, with two past producing zones and several unexplored anomalies, makes an attractive prospect.

George O'Reilly and John MacIsaac: The Caledonia tin-tungsten prospect was found by Shell Canada Resources soon after discovery of the East Kemptville tin deposit. No work has been done on Caledonia since 1983, but prospector John MacIsaac and retired DNR geologist George O'Reilly have begun a new investigation of the former site, which displays ore-grade tin and tungsten.

John Wightman: The Dominique polymetallic granophile target consists of several anomalies that have never been well explained. Ore-grade levels of tin and zinc are well documented, but now the addition of indium in this area of significant leucocratic alteration makes it a truly desirable exploration target.

Magnum Resources: The Cobequid Highlands IOCG play, started by Minotaur Exploration, did not come to a halt when Minotaur withdrew most of its assets from Nova Scotia. Minotaur's regional exploration program left a wealth of information, including a regional $2.5 million database of gravity data with many focused, drill-ready anomalies now under follow up by Magnum.

If you are attending the Roundup or PDAC convention, plan to visit the Geoscience and Mines Branch booth and hear about exciting mineral opportunities in Nova Scotia.

Ron Mills and Diane Webber

Mineral Development Proceeds Under Tough Economic Conditions

Kameron Collieries, a subsidiary of the Cline Group LLC, is gearing up to enter a 'test mining' phase at the Donkin property in Cape Breton. This could involve the extraction of up to 1.0 million tonnes over two years from the Harbour Seam, extending out under the Atlantic Ocean. The test will determine the characteristics of the seam, evaluate the proposed mining method and confirm the quality and marketability of the coal. Depending on the results, a full-scale operation might be justified.

In addition to the coal project, government approvals are being sought for three other mine developments in the province.

Black Point Aggregates Inc. is seeking joint federal/provincial Environmental Assessment approvals for a large (1 to 7.5 million-tonne-per-year) construction aggregate quarry at Black Point near Canso. The public comment period closed on February 3, 2016, on the draft Environmental Assessment Report. Black Point Aggregates Inc. is a subsidiary of U.S.-based Vulcan Materials Co.

DDV Gold is seeking approvals for a 5,500 tonnes-per-day open pit gold mine at Beaver Dam in Halifax County. DDV, which is a subsidiary of Atlantic Gold Corporation, already has the necessary approvals to commence development of an open pit gold mine, processing facility and tailings management facility at Moose River (the Touquoy project). It is presently seeking about $137 million to finance that project. Once mined out, the Touquoy pit would then hold tailings that would be generated from the processing of gold ore trucked to the site from the Beaver Dam property, 37 km distant. The draft Environmental Impact Statement for the Beaver Dam project is in progress.

At the southern end of the province, Avalon Rare Metals Inc. is working to develop a new tin-indium mine at the site of the former East Kemptville tin mine in Yarmouth County. That open pit mine and mill closed in 1992 due to low metal prices and the site has been reclaimed. Once full title to the property has been transferred to Avalon, the company intends to release a Preliminary Economic Assessment that will evaluate a number of development scenarios for the mineral deposits.

Patrick Whiteway

Global Geopark Proposed for Parrsboro Shore Area

It's official. Nova Scotians are pursuing a UNESCO Global Geopark for the Parrsboro shore area. In December 2015, the Cumberland Geological Society, the community group that administers the Fundy Geological Museum, submitted a letter of intent to the National Committee for Global Geoparks. The committee reports to the Canadian Federation of Earth Sciences and is the agency responsible to direct applications for Global Geopark status to the Canadian Commission for UNESCO.

Global Geoparks are found in 35 countries, concentrated at present in Europe and Asia. Global Geoparks are based on bottom-up, community-driven management and economic development. Unlike municipal, provincial and national parks, geoparks do not carry land-use restrictions. Instead, they are a vehicle to bring attention to a region's geology and mining history. Combine the Cumberland Geological Society's established track record with some of the most spectacular coastal geology found anywhere, and the future looks bright for geotourism on the Fundy shore.

John Calder

In photo, left to right: Oralee O'Byrne, Treasurer, Cumberland Geological Society (CGS) and Curator, Age of Sail Museum; Karen Dickinson, Chair, CGS; Lois Smith, Vice Chair, CGS; Leisa Babineau, Mayor of Parrsboro and Administrator, Fundy Geological Museum; Lawrence Nicolls, Board Member, CGS; Eric Leighton, Board Member, CGS; John Calder, NSDNR; Robert Grantham, Board Member, CGS.

Cobequid Highlands and Cape Breton Island are the Focus of Mineral Promotion at PDAC 2016

The Geological Services Division is adopting a new approach to promoting the mineral potential of Nova Scotia at the Prospectors and Developers Association of Canada (PDAC) convention in Toronto this March. Our focus is on highlighting new research and discovery in the field by DNR geoscientists. This year we are highlighting work conducted over the last several years as part of the projects to remap the Cobequid Highlands and parts of Cape Breton Island, and to compile the many datasets available for these regions.

Due in part to the deficiencies of existing maps, the Cobequid Highlands have been an underexplored, geologically complex region. Recent work has resulted in many new discoveries, including a regional-scale IOCG play, rare-earth element (REE) potential, and occurrences of low-sulphidation epithermal gold. These discoveries have been made through a combination of new mapping by DNR and renewed industry exploration.

In an effort in invite further exploration, the Geological Services Division will display a poster highlighting the new mapping, as well as the many datasets available to industry and the public. These datasets include geochemical data from DNR's portable XRF unit on over 5,000 bedrock samples, regional surficial geochemistry, high-resolution lidar, and regional geophysical surveys including airborne magnetics, radiometrics and gravity surveys. Almost any type of survey in recent years has led to new discoveries. With further exploration investment in the Cobequid Highlands, the potential for the discovery of a major mineral deposit is very high.

The Canadian Appalachian orogen (Fig. 1) extends from Newfoundland through Nova Scotia, Prince Edward Island and New Brunswick into southern Quebec, and has been subdivided into several tectonostratigraphic zones that constitute a complex collection of microcontinents and associated volcanic arcs. From west to east, these are the Humber, Dunnage, Gander, Avalon and Meguma zones. The Humber Zone represents the leading edge of Laurentia's margin; the Gander, Avalon and Meguma zones represent peri-Gondwanan microcontinents that were sequentially accreted to Laurentia. The Dunnage Zone mainly contains accreted arc terranes and has been subdivided into the peri-Laurentian Notre Dame and peri-Gondwanan Exploits subzones. The Appalachian orogen is rich in volcanic-hosted massive sulphide (VHMS) deposits and, to a much lesser extent, sediment-hosted massive sulphide deposits. Most of the host rocks to the sulphide deposits formed in subduction zones related to the closure of the oceans and back arcs between the peri-Laurentian and peri-Gondwanan arc terranes, especially in the Notre Dame and Exploits subzones in Newfoundland and New Brunswick.

Many of the same units are present in Cape Breton Island, yet this part of Nova Scotia remains underexplored. Work on a new series of 1:50 000-scale geological compilation maps of the island has sparked a renewed interest in exploring the economic potential of the area. The Faribault Brook area in western Cape Breton Island hosts several Cu-Pb-Zn-Au occurrences and historical mines. Recent detailed mapping together with lithogeochemical and U-Pb dating in this area has shown these host rocks are correlative to those in the Exploits subzone in Newfoundland, which host numerous VHMS deposits. Significant gold vein deposits on Cape Breton Island are associated with a major mylonitic high-strain zone known as the Eastern Highlands Shear Zone and may be similar to the vein gold deposits associated with brittle-ductile faults in the Cape Ray area of Newfoundland.

Avalonia contains several types of mineral deposits that formed before its late Silurian accretion to Laurentia. The oldest are several VMS deposits that are hosted by Late Neoproterozoic arc volcanic rocks and include the Winter Hill and Frenchman Head deposits (Newfoundland), the Stirling deposit (Mira terrane - Cape Breton Island), and the cupriferous Teahan and Lumsden deposits (Broad River Group - New Brunswick). Associated calc-alkaline plutonic rocks host disseminated Cu and Mo porphyry in Newfoundland (e.g. Holyrood Granite) and Cape Breton Island (e.g. Coxheath Hills pluton). Pyrophyllite alteration zones developed in predominantly felsic volcanic rocks throughout the Avalon Zone in Newfoundland are associated with epithermal gold and silver mineralization. This alteration has also been recently noted in the Mira terrane in Cape Breton Island and has largely been unexplored.

Chris White, Geoff Baldwin and Trevor MacHattie

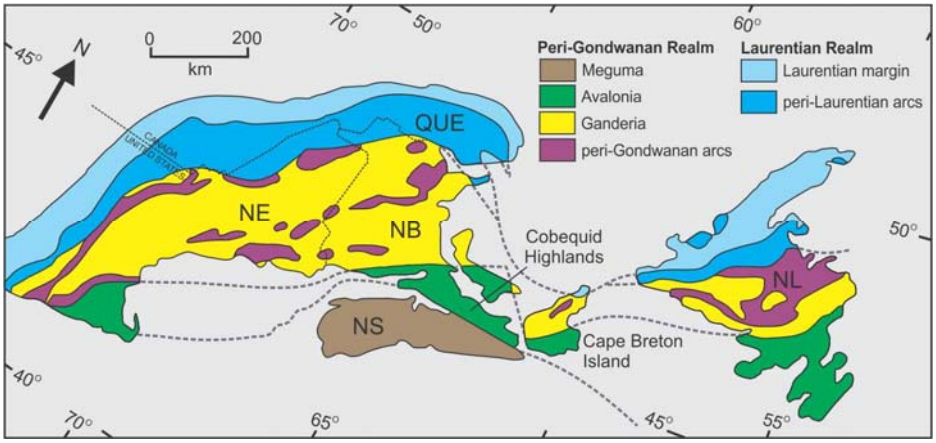


Figure 1. *Sketch map of the northern Appalachian orogen.*

Meet the Mining 'One Window' Standing Committee

Authorities responsible for administering regulations related to mineral development activity in Nova Scotia meet once a month to discuss active projects and to exchange information related to approvals. Members of the Mining 'One Window' Standing Committee are pictured below at their December 2015 meeting. Seated (from L to R) are Cyril LeBlanc, Mining Engineer, Labour and Advanced Education, Occupational Health and Safety; Beata Dera, Policy Analyst, Office of Aboriginal Affairs; and Tom Lamb, Mining Engineer, Geoscience and Mines Branch, DNR. Standing (from L to R) are John MacNeil, Registrar of Mineral and Petroleum Titles, Geoscience and Mines Branch, DNR; Patrick Whiteway, Manager of Mineral Development and Policy, Geoscience and Mines Branch and Chair of the One Window Committee; Joseph Vigder, Environmental Assessment Officer, Canadian Environmental Assessment Agency; and Helen Yeh, Environmental Assessment (EA) Analyst, EA Branch, Nova Scotia Environment.

Patrick Whiteway

Members of the Mining One Window Standing Committee gathered for a regular monthly meeting in December 2015. The Mineral Development and Policy section of DNR's Geoscience and Mines Branch leads the One Window process.

Atlantic Geoscience Society (AGS) Annual Colloquium and General Meeting 2016

The 42nd Atlantic Geoscience Society (AGS) Colloquium and Annual General Meeting were held at the Holiday Inn, Truro, on February 5 and 6, 2016. The organizers, Tim Fedak, Bob Grantham, Rob Raeside and Chris White, with help from Ian Spooner and numerous student volunteers, facilitated an excellent meeting. About 170 registered participants enjoyed a full and diverse program. As usual, the event was well attended by employees (both former and current) of the Nova Scotia Department of Natural Resources, who also contributed to several of the sessions. Thanks are extended to Howard Donohoe for acting as the AGS special events photographer.

Friday's program began with a workshop on QA/QC in Geology Research and Exploration by Cliff Stanley (Acadia University). Poster displays started Friday evening and remained available to view until late Saturday afternoon. Three concurrent sessions ran Friday evening: Recent Research in Petrology and Geophysics; Recent Research in Sedimentary and Surficial Geology; and Dates, Rates and Duration of Tectonic Processes-Timing is Everything.

Saturday's events started with several concurrent sessions including Tin-related Mineralization and Exploration in the Maritimes; Geoscience Education and Outreach: Creating an Awareness; Offshore Geology of Eastern Canada; Recent Research in Economic Geology; and Advances in Carboniferous Geology in the Atlantic Provinces. The guest speaker at Saturday evening's banquet was Gerald Gloade (Mi'kmaq artist from Millbrook and Program Officer at Mi'kmawey Debert Cultural Centre) who gave an informative and entertaining presentation on Mi'kmaq legends in Atlantic Canada and the intertwined relationship between Glooscap and geology. Following dinner several prestigious AGS awards were presented in recognition of worthy student presentations and professional accomplishments.

- The new **Rob Raeside Award** for best undergraduate student poster went to Lori Paslawski (St. Francis Xavier University) and her co-authors Alan J. Anderson, Christopher MacFarlane and Brandon Boucher.
- The **Graham Williams Award** for best graduate student poster went to Cody A. Paige (Dalhousie University).
- The **Rupert MacNeill Award** for best undergraduate student oral presentation went to Christopher Sangster (Saint Mary's University) and his co-authors Georgia Pe-Piper and Yuanyuan Zhang.
- The **Sandra Barr Award** for best graduate student oral presentation went to Travis McCarron (University of New Brunswick) and his co-authors Chris McFarlane and Fred Gaidies.
- The **Encana Prize** for best student poster in the Offshore Geology of Eastern Canada session went to J. Carlos Wong (Dalhousie University) and his co-authors Carla Skinner, Bill Richards, Ricardo Silva, Natasha Morrison and Grant Wach.
- The **Encana Prize** for best student oral presentation in the Offshore Geology of Eastern Canada session went to Isabel Chavez (Saint Mary's University) and her co-authors David Piper, Georgia Pe-Piper and Yuanyuan Zhang.
- The **Laing Ferguson - Distinguished Service Award**, given in recognition of exceptional and altruistic contributions to the Atlantic Geoscience Society and/or to foster public appreciation of Atlantic geoscience over a long period of time, went to Chris White (Nova Scotia Department of Natural Resources).
- The **Distinguished Scientist Award - Gesner Medal**, given to a person who developed and promoted the advancement of geoscience in the Atlantic Region in any field of geology, was awarded to Dave Lentz (University of New Brunswick).

Thanks to the organizers and all of the participants for an outstanding weekend!

Chris White

From the Mineral Inventory Files

Tragedy at Gold Lake

Researching and field checking old mineral prospects and mines isn't always just about geology. Often the research provides a window into long-past eras, the conditions workers faced and the routine of their everyday lives. In the late 1800s working in the woods was tough and conditions were harsh. Protecting the health and safety of workers was mostly an afterthought. Edmund Burke offered the opinion that "those who don't know history are doomed to repeat it," so let's examine a piece of Nova Scotia's history.

Tragedy struck on 26 November 1897 at the Consolidated Gold Lake Au Mine northeast of Lake Charlotte, Halifax County (Fig. 1). The only official record of the accident I know of is a short article in the November 27 New York Times that reads: "*Three Men Killed in Halifax; Boiler Bursts at the Gold Lake Mines with Fatal Results. Halifax, N.S. Nov. 26 – The explosion of a boiler at Gold Lake Mines, East Halifax, today caused the instant death of the manager of the mine, Daniel McPhail, and two other men, James Hennessy and John McIsaac, their bodies being terribly torn by the flying wreckage of the boiler. No others were seriously injured. Hennessy and McIsaac were testing the boiler at the time.*"

The Gold Lake Mine was a small operation. Discovered in 1867, but not developed until the mid-1890s, it only ever produced a few dozen ounces of gold from a handful of shafts (Fig. 1). Installation of a boiler was part of this first development effort, and it was during testing of the boiler that the accident occurred.

When I first visited the mine in 1997, by coincidence almost 100 years to the day following the explosion, I found a few foundations and some quartz debris at the very southeast corner of Gold Lake (Fig 1). I also came upon the remnants of a boiler and, 30 m to the south, the boiler's firebox. Now overgrown, both pieces were extensively damaged (Fig. 2). The twisted condition of the firebox particularly shows the power of the explosion. In addition, the surrounding area is strewn with twisted pieces of metal, including many fragments of boiler pipe showing steam-pressure ruptures (inset in Fig. 2). The accident site seems to have been left essentially as it was following the 1897 explosion. Government reports show no formal record of this accident and the loss of three men. Times really have changed.

George O'Reilly

Figure 1. (L) *Air photo showing the location of the Gold Lake Mine and position of the 1897 boiler accident relative to the mine workings.* ***Figure 2. (R)*** *Photo of the boiler firebox showing extensive damage. The inset is a photo of a ruptured pipe from the boiler, showing clear evidence of the steam explosion.*

New Mineral Resource Land-use Interactive Web Mapping Application

A new version of the Mineral Resource Land-use Atlas (MRLU) interactive web mapping application is now available on the branch web site. This is the sixth web mapping application that the Geoscience and Mines Branch has recently released on new servers and with current interactive map-server technology.

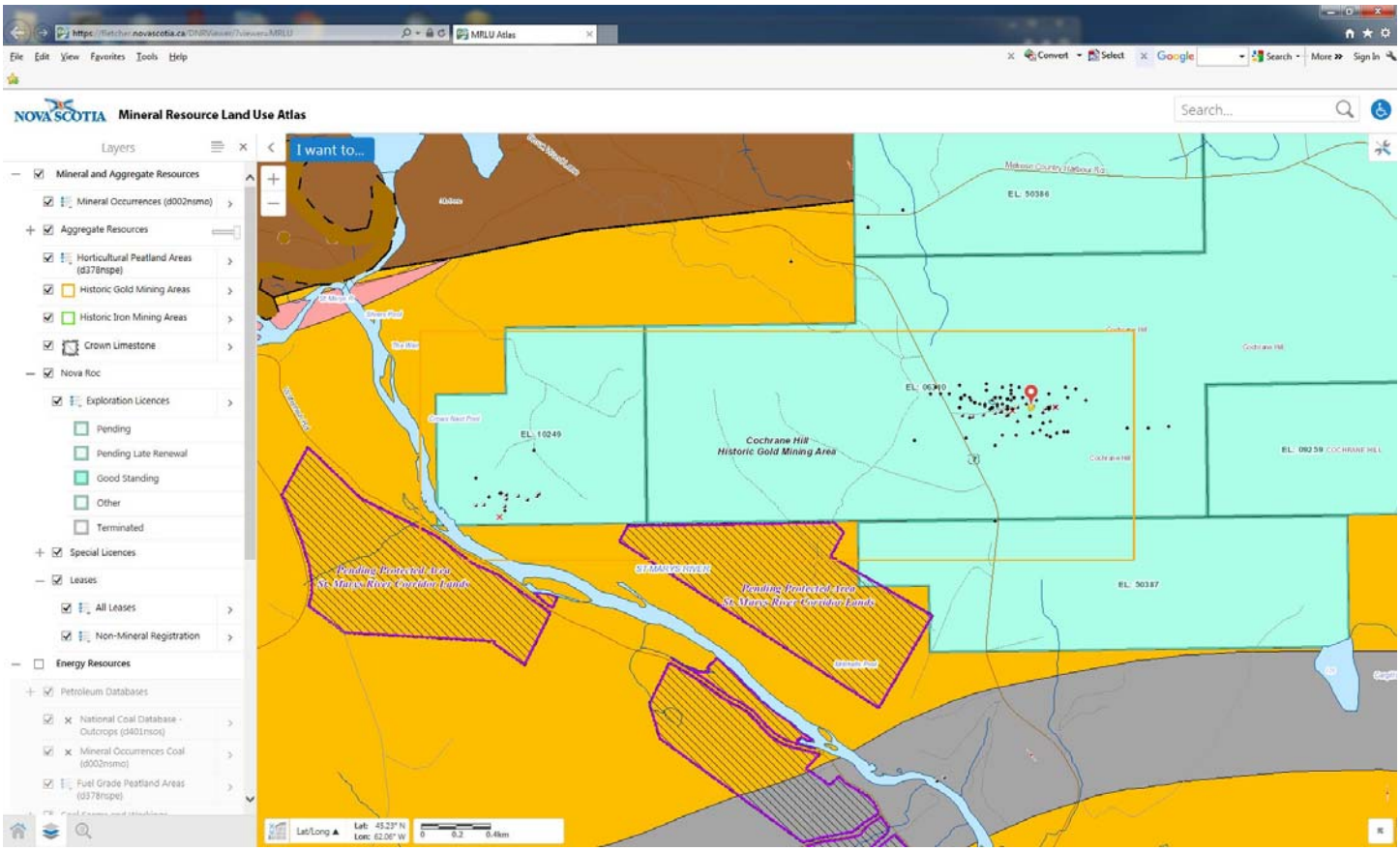
The MRLU application was modelled after the MRLU Map Atlas published in 2000 (Open File Map ME 2000-004) by David Hopper, Fred Bonner and Brian Fisher. The atlas consisted of 98 maps (scale of 1:50 000) that covered the entire province. A second version of the map atlas and a digital product were published in 2002 with revised base layers and the latest version of the Restricted and Limited Use Land Database. The first version of an MRLU online interactive map application was released in 2004 and has been running since then. In 2014 the old map service behind the MRLU application generated nearly 124,000 maps.

The new MRLU application provides the public, land-use planners, geotechnical firms and groups involved in community economic development with a single georeferenced compilation of information related to mineral resource land use at a reasonably detailed scale. This application displays the location and distribution of mineral and energy resources, and related activities. The information also includes environmental geology and geohazards that relate to land-use and environmental planning.

Along with a new application, many of the layers within the MRLU application have been augmented. This includes 30 restricted, conditional and limited-use lands that are important to mineral resource interests. These include provincial and national parks, wildlife areas, sanctuaries and reserves. These same layers will have utility in other areas of land-use planning, such as municipal planning and economic development.

The team developing the new applications has designed a common ‘look and feel’ to help users navigate through these complex databases. Continuing improvements to all applications will be introduced whenever possible, so expect this technology to evolve in the future. The new MRLU application is found on the Geoscience and Mines Branch interactive maps page: http://novascotia.ca/natr/meb/geoscience-online/maps-interactive.asp.

Jeff Poole, Sonya Cowper and Brian Fisher



An example of the interface for the new Mineral Resource Land-use Atlas. In this case the Cochrane Hill gold mining area is shown with drillholes, mineral occurrences and abandoned mines, along with current exploration licences, bedrock geology and protected areas.

Mining Association Holds "Yes, We're Open" Conference

The Mining Association of Nova Scotia (MANS) completed a report in August 2015 about how the mining industry, both here and elsewhere, views Nova Scotia as a place to invest. The report, *Sorry, we're closed: how the province's reputation in the global mining industry is costing Nova Scotians jobs*, includes interviews with dozens of industry leaders and provides examples of policy issues that, if resolved, would send a signal to the global mining industry that Nova Scotia is open for business.

To help address the issues detailed in the report, MANS planned a half-day conference – the "Yes, We're Open" conference – at which industry and government representatives could come together to discuss the report and work together constructively. The conference, held on November 19, 2015, included speakers from both industry and government, such as the Honourable Mark Furey, Minister for Business, and Frank Dunn, Deputy Minister for the Department of Natural Resources.

One of the recommendations in the *Sorry, we're closed* report, and an issue heard often during interviews with industry leaders and executives, is that Nova Scotia should lift the uranium ban. To help address the misconceptions around uranium mining, MANS brought in Jean LeClair, Director, Uranium Mines and Mills Division from the Canadian Nuclear Safety Commission to explain how uranium mines are stringently regulated in Canada.

The dialogue was constructive and helped both sides understand the issues and how to work better together. The "Yes, We're Open" conference focused on solutions and how, together, we can send the message to the global mining industry that Nova Scotia is open for business.

Sarah Kirby
Director, Government Relations and Communications
Mining Association of Nova Scotia

Nova Scotia Contributes to National Orphaned/Abandoned Mines Initiative

In 2016, an online interactive map showing the location of thousands of orphaned and abandoned mines in Canada will be launched by the National Orphaned/Abandoned Mines Initiative (NOAMI). Nova Scotia is contributing to this map by providing data on 825 such sites – mainly historical gold, coal, gypsum and iron ore mines. The Geoscience and Mines Branch compiled the data from its existing Abandoned Mine Openings database and various Open File and Economic Geology Series reports.

The NOAMI Advisory Committee consists of representatives from most provinces and territories. They meet on a regular basis by teleconference, but on July 22, 2015, members met face-to-face in Halifax on the fringes of the annual Energy and Mines Ministers' Conference. This afforded an excellent opportunity for the group to visit one of the oldest abandoned mine sites in the country and to discuss the challenges of remediating these sites. The site chosen was the gold mining district in Montague, which was mined from 1863 to 1940, located 20 km northeast of Halifax. The field trip was organized by Dr. Michael Parsons, Research Scientist, Environmental Geochemist for the Geological Survey of Canada with assistance from Ernie Hennick of the Geoscience and Mines Branch.

This site is one of thousands in Nova Scotia that are monitored and remediated by the Geoscience and Mines Branch as part of our Abandoned Mine Openings program. Members of the NOAMI committee are pictured here at the Montague site.

Patrick Whiteway and Ernie Hennick

Geoscience and Mines Branch summer student Daniel O'Brien (left) assists GSC geochemist Michael Parsons (centre) to guide members of the NOAMI Advisory Committee around the abandoned gold-mining site of Montague.

DNR Geohazard Risk Maps

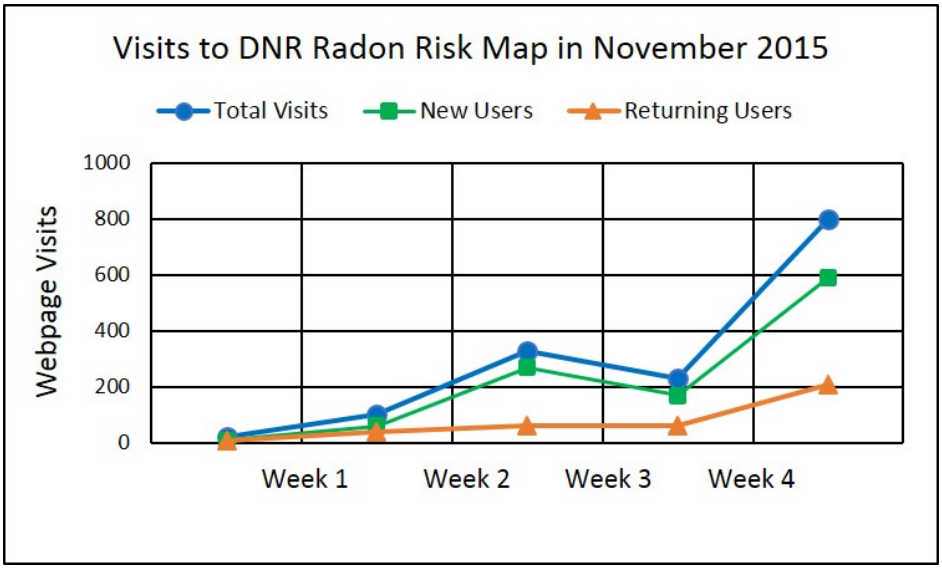
There are several naturally occurring chemical geohazards in Nova Scotia that can pose a risk to human health and the environment. Examples include radon gas, which can accumulate in indoor air; arsenic and uranium, which can migrate in groundwater and affect well water; and acid rock drainage (ARD), which can pose a risk to aquatic habitats. Radon gas is estimated to affect 11% of all homes in the province and arsenic and uranium are estimated to affect 9% and 4% of private water wells, respectively.

Many chemical geohazards cannot be identified without laboratory testing because they have no taste, odour or colour to warn of their presence. In these cases, what you don't know can hurt you. Therefore, risk mapping and public awareness are essential to protecting public health and the environment.

DNR has published a series of geohazard risk maps and continues to update and publish these in new user-friendly formats. Risk maps for sinkhole occurrence and arsenic in well water are currently being worked on, and the current trend is to publish geohazard maps in online interactive formats. DNR's radon risk map and ARD risk map are already available in this format. Interactive maps are powerful public engagement tools because they are easy to use and their interactive nature attracts attention by homeowners who are curious to see what risk levels are present in their neighbourhood.

An example of the impact of interactive risk maps combined with public outreach activities can be seen in the accompanying graph, which shows the number of visits to DNR's radon map during the month of November 2015. November is Canada's Radon Action Month and during this time there were numerous media stories about radon and public events, including one at the Halifax Central Library, which DNR participated in. The graph shows a steady increase in the use of the radon map throughout November, with a total of 1,452 sessions logged by the end of the month. Although the radon map can improve risk awareness, it is important for homeowners to follow up with radon testing and remediation to reduce radon exposure. The interactive map includes links to information on how to purchase test kits and how to find certified radon contractors for remediation work. Please visit the map here: https://fletcher.novascotia.ca/DNRViewer/?viewer=Radon.

John Drage



November 2015 was Canada's first National Radon Action Month. The number of visits to the Geoscience and Mines Branch web site to view the interactive radon risk map reflects the attention this geohazard received in the media and through public events.

Special Note

E-mail Notification
If you would like to receive an e-mail notice (with hot links) when new maps, digital products and publications are released, or when a new issue of *The Geological Record* is released, please send your e-mail address to DNR.Library.List@novascotia.ca.

Dates to Remember

March 6-9, 2016
Prospectors and Developers Association of Canada, International Convention, Trade Show & Investors Exchange, Metro Toronto Convention Centre, Toronto, ON. For more information please visit the web site: www.pdac.ca/convention.

April 21, 2016
Mining Association of Nova Scotia Annual General Meeting and Reception, Inn on the Lake, 3009 Highway 2, Fall River, NS. Members in good standing are invited to the AGM from 3-4 pm; all are invited to the reception from 4-6 pm. For more information please contact Sarah Kirby: sarah@tmans.ca.

June 1-3, 2016
Geological Association of Canada-Mineralogical Association of Canada 2016: Margins through Time, Yukon College Campus, Whitehorse, YT. For more information please visit the web site: whitehorse2016.ca/.

June 9 and 10, 2016
Mining Society of Nova Scotia 129th Annual Meeting, Marriott Halifax Harbourfront, Halifax, NS. For more information please visit the web site: http://www.miningsocietyns.ca/.

August 19-21, 2016
Nova Scotia Gem and Mineral Show and Sale, Parrsboro, NS. For more information please visit: https://fundygeological.novascotia.ca/gemshow.