



Mining Matters Annual Newsletter 2018



Respect
Explore



Discover



Educate



Message from the President and CEO



Dear Friends and Colleagues,

I am pleased to share exciting news and highlights from this past year. **Mining Matters** has continued to work on several new initiatives, which I am proud to announce have seen much success.

We get particularly excited to see girls embrace Earth science and encourage them to pursue a related career. Our new partnership with the Girl Guides of Canada, Manitoba Council has resulted in the compilation of age-appropriate Earth science activities and the creation of the first geoscience badge!

Our latest original publication is the fifth in a series of *Mining Makes It Happen* posters. *Music from the Earth* connects metals and minerals to musical instruments, from the earliest drum beat to modern arrangements.

Over 2,000 students have participated in our *Rocks + Kids = Opportunities* program since it was first introduced in 2017 and our environmental activities that discuss topics such as water filtration, reclamation, soil erosion and more, have reached hundreds of students in our *Mining Rocks* Earth Science Programs for Indigenous communities.

Furthermore, our annual fundraising events: the **Mining Matters Hockey Tournament**, the *Diamond in the Rough Golf Classic* and our *Rock Cycle Ride for Minerals Education* each had great turnouts this year.

I am thrilled to see such tremendous support from industry and community members who have contributed to the growth of **Mining Matters** through donations, grants, sponsorships and in-kind support. As we approach our 25th anniversary of the introduction of our first classroom resources, I am grateful that our organization is supported by such a strong, committed group, and honoured that you have chosen to share in our mission.

I would like to take this opportunity to thank our Board of Directors for their time and expertise. It is my pleasure to extend a warm welcome to MaryAnn Crichton, Managing Director, Investment and Business Planning and Senior Partner at Hatch, as a new member of our Board.

Our dedicated staff have been hard at work to get educators and students excited about Earth science. I am grateful for their energy, enthusiasm and commitment to bring knowledge and awareness about our industry. Together we have reached over 46,000 students, teachers and members of the public this year.

I hope you enjoy reading about our incredible programs, projects and future plans.

Thank you for your support!

A handwritten signature in black ink that reads "Patricia Dillon".

Patricia Dillon
President and CEO
Mining Matters



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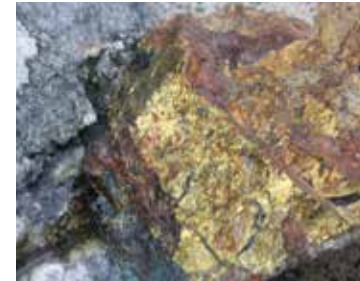
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Courtesy of TerraX Minerals Inc.

HIGHLIGHTS

6

New activities about metals developed



2,000+

Educators reached with **Mining Matters** curriculum-linked resources

1,905

Individuals reached through our Indigenous Communities Education and Outreach Programs

46,000+

Total individuals who enjoyed Earth science activities in schools, camps, conventions, conferences and public events across Canada *

28,000+

Students reached through our Teacher Training and School Programs*

700,000+

Teachers, students and members of the public reached since inception in 1994*



* estimated



New Metals Activities

A series of new activities about metals was launched last winter. The six lessons teach students about a variety of topics, including the physical properties of metals, how to extract metal from ore, understanding their crystal structure and how to heat and treat metals.

These activities allow students to take on the role of a metallurgist as they use scientific instruments to investigate the properties of metals and experiment with samples. Using engaging and hands-on methods, the activities promote awareness of how our buildings, energy systems, transportation, and even our clothing, rely on metals extracted from the Earth.

Lesson 1 – Investigating Minerals

Students investigate the physical and chemical properties of minerals through a variety of tests: acidity, density, fluorescence, hardness, heat conductance, magnetism, electrical resistance and streak.

Lesson 2 – Extracting Metal

Students try copper plating and explore one of the last stages of copper extraction.

Lesson 3 – Investigating Metals

Students investigate the properties of metals: density, hardness, magnetism, their reaction to oxygen, electrical resistance and heat conductance.

Lesson 4 – Deep Inside

Using models, students go deep inside to analyze and understand the crystal structure of metals.

Lesson 5 – Treating and Working Metals

Students experience the impact that simple processing can have on metals. They see how work hardening makes it stiffer or less ductile, how heating makes it more ductile and how quenching makes it more brittle.

Lesson 6 – Making with Metals

Students use different types of metal foil, wire and disks to create their own sculpture and learn how metals are used to make everyday items.

Thank you to William McCombe, P.Eng and Senior Metallurgist of Hatch, for providing technical expertise in support of this project.



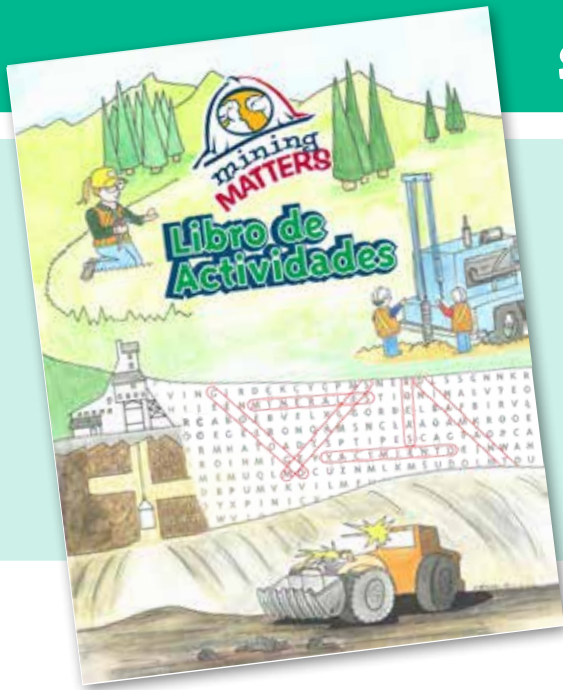
Translation to Indigenous Languages

Mining Matters is working on translating a selection of resources into Inuktitut, Inuinnaqtun, Cree, Ojibway and Oji-Cree, to strengthen its education, community, industry and government partnerships and expand program reach.

Funding for translation has been generously provided by Crown-Indigenous Relations and Northern Affairs Canada and the Ontario Ministry of Energy, Northern Development and Mines.

Mining Matters has previously translated posters in our *Mining Makes It Happen* poster series into Cree, Oji-Cree and Ojibway. To request copies, contact us at info@miningmatters.ca.

Spanish Activity Book



After receiving multiple requests to provide Spanish resources, we had our popular resource translated for our Spanish-speaking stakeholders.

Packed with puzzles, crosswords and games, the *Mining Matters Activity Book* is designed to introduce individuals to mining-related vocabulary and educate them about the various steps and processes involved in the mining cycle.

Mining Matters is excited about the translation of this book and hopes to appeal to an even wider audience. **Mining Matters** would like to thank Goldcorp Inc. for their generous support of this important initiative. Thanks to Servicio Geológico Minero Argentino (SEGMAR) and Lundin Gold Inc. for donating additional language and technical expertise.



Music from the Earth

Mining Matters will soon unveil the newest addition to our *Mining Makes It Happen* Poster Series. *Music from the Earth*, the fifth in the series that highlights the role that minerals play in our daily lives, explores the use of minerals, metals and elements in the creation of musical instruments, performances and audio engineering. The poster features a range of instruments, including percussion, brass, woodwinds and strings, as well as electronic devices and the Earth materials that are used in their manufacture. **Mining Matters** would like to thank SGS Canada Inc., Canadian Heritage and the Québec Mining Association for their support of *Music from the Earth*.



Teacher Workshop and Quarry Tour

A partnership with Demix Agrégats in Laval provided teachers with a unique professional development opportunity to obtain **Mining Matters** curriculum-linked resources and explore an aggregates operation first-hand.

The in-class workshop consisted of five modules based on mineral identification, matching minerals to the products in which they are found, the mining and rock cycles and careers in the minerals industry. Participants received a map of active mines in Québec, which put into perspective just how many deposits are currently being mined. They learned that several important metals used in our everyday lives are mined in Québec. This information can now be passed onto their students.

Teachers then visited Demix Agrégats, a division of CRH Canada, Laval Quarry. Many were impressed by the size of the equipment: the front-end loaders, 50-tonne haul trucks and conveyor belts. Two CRH employees, Simon Kalala, Production Engineer and Sébastien Vadeboncoeur, Environmental Coordinator, led the quarry tour. The group observed sedimentary bedding, learned about the formation of limestone deposits and received information on the importance of health and safety at Demix Agrégats.

Participants demonstrated excitement towards using **Mining Matters** resources in their classroom. Many also expressed an interest in applying for grants for field trips that are available through the **Mining Matters** Field Trip Subsidy Program.

For information about how to book your own Teacher Training Workshop, please visit MiningMatters.ca.



Mining Rocks in Whitesand First Nation

For the third summer in a row, **Mining Matters** travelled to Whitesand First Nation to deliver a *Mining Rocks* Earth Science Program. Whitesand is situated 235 kilometres from Thunder Bay, which is home to many companies involved in the minerals sector.

Due to such a large mining presence near the community, Maurice Machendagoos from Whitesand thought **Mining Matters** programs would be of value to the youth in his community. "After searching and looking for information on the program I felt that it might be good for our youth to learn about what is on the program agenda and they might get interested in the jobs available," said Machendagoos. *Mining Rocks* Earth Science Programs teach youth about various topics related to rocks, minerals, metals and mining, including what non-renewable materials are used for, how they are extracted and the diverse careers in the minerals industry.

Machendagoos was first introduced to **Mining Matters** by a former Whitesand employee who attended a training session for the Stewardship Youth Rangers – another group with whom **Mining Matters** works. Machendagoos says that it was his hope that the program would pique the interest of youth in the community towards a career in mining.



Three years later, **Mining Matters** has now facilitated activities pertaining to rocks and minerals to 45 youth in the community. Machendagoos looks forward to more visits. "I'm trying to get all of our youth to experience these kinds of workshops to expose them to all kinds of jobs and careers that are out there," he says. "I like the way they deliver the program and get all the youth involved. I also participated in a couple of the sessions, which I found were constructive and hands-on. I believe the youth enjoy these kinds of sessions because they really get involved with each other."

Mining Rocks Earth Science Programs are offered as part of the Indigenous Communities Education and Outreach Programs. *Mining Rocks* provides an exciting educational experience in a camp or classroom setting, tailored to the audience and unique needs of the community. Frequently, participants engage with industry professionals which can also include mine and exploration site visits. Over the last year, **Mining Matters** delivered 45 *Mining Rocks* Programs in 23 locations across Canada.

Mining Matters would like to thank Crown-Indigenous Relations and Northern Affairs Canada, Canadian Geological Foundation and Natural Sciences and Engineering Research Council for their generous support of our Indigenous Communities Education and Outreach Programs.



Our Work in the North

In 2017-2018 **Mining Matters** made several visits to northern Canada to provide educational programs and facilitate community engagement in Yukon, Northwest Territories and Nunavut, as well as Nunavik, the northern third of the province of Québec.

In late September, **Mining Matters** travelled to Yellowknife where we delivered student programming about rocks, minerals and careers in the mining industry at Range Lake North School. Students from the school also participated in a field trip led by geologists from TerraX Minerals Inc., who took the students on an informative hike at Ranney Hill Geological Interpretive Trail. Students learned about the geology of the area and how to examine rocks using geological equipment. This program

was made possible thanks to the support and funding provided by the Government of the Northwest Territories, Department of Industry, Tourism and Investment (GNWT ITI), TerraX Minerals Inc. and the Northwest Territories and Nunavut Chamber of Mines.

In November 2017, **Mining Matters** attended the Yellowknife and Yukon Geoscience forums where we engaged with industry stakeholders and delivered teacher workshops

to provide educators with resources to use in their classrooms. Later in the winter, we participated in the Qikiqtani Teachers' Conference in Iqaluit, as well as the Northwest Territories Teachers' Association Conference in Yellowknife. We provided workshops, information and resources to formal and informal educators.

In March, **Mining Matters** travelled to Salluit, Québec to deliver a *Mining Rocks* Program in conjunction with an environmental forum hosted by Glencore Raglan Mine.

Mining Matters delivered hands-on activities as part of a Mining 101 Workshop for intermediate and secondary students. The students worked alongside scientists and Raglan Mine employees to build water filtration systems using household materials; competed in the *Headframe Challenge*, which required them to build headframes capable of lifting marbles using only straws, construction paper and masking tape; made jewellery out of amethyst and copper wire and tried their hand at soapstone carving.

In the spring, **Mining Matters** had the privilege of travelling back to the Northwest Territories, in partnership with the GNWT ITI, to deliver workshops in the five communities of the Sahtu Region – Norman Wells, Fort Good Hope, Tulita, Colville Lake and Déline. The program, reaching over 100 young Canadians, featured a discussion led by Valerie Gordon, Community Relations Advisor for GNWT ITI, about careers in the minerals industry.

Mining Matters also raised public awareness during Northwest Territories Mining Week celebrations in Yellowknife, where we participated in the Resources and Energy Development Information (REDI) Session hosted by the GNWT ITI. Here we engaged student groups and the public with interactive activities used to demonstrate the importance of mineral resources in today's society.





Ring of Fire Partnership

2018 marked the seventh anniversary of a very successful partnership between **Mining Matters** and the Ontario Ministry of Energy, Northern Development and Mines (MENDM). Community events and educational programs were held in 15 locations including the First Nation communities of Nibinamik, Constance Lake, Ginoogaming, Fort Albany, Kashechewan, Fort Hope, Attawapiskat, Neskantaga, Aroland, Webequie, Long Lake #58, and the towns of Kapuskasing and Hearst. A mix of summer camps and school programs delivered in English and French provided an introduction to the fundamental concepts of Earth science and the mining industry.

In 2019, the **Mining Matters** Ring of Fire Program will expand to include the First Nation communities of Deer Lake, Keewaywin and Sandy Lake.

Mining Matters thanks MENDM for their valued long-standing partnership in mineral resources education.

"I liked testing the properties [of minerals] because I learned that minerals can conduct electricity."

– Aroland Student, Female, Grade 7, Age 12

"I enjoyed the mapping and cookie mining activities. The hands-on learning made me fully understand mining. The facilitators know their field really well."

– Aroland Teaching Assistant, Female

"I appreciate what you do (teaching students about the importance of mining)."

– Hearst Participant, Female, Age 14



Indspire Helps Students Soar

In MacLean's Magazine, December 26, 2017, Indigenous communities advocate Darcy Lindberg wrote that 2018 will be the year of Indigenous youth. This will be, he says, "not because that's when they'll only now start doing impactful things, but because Canada will observe the amazing things they've already been doing, every day."

Indspire believes the same thing, extending it to all ages. The group is an Indigenous-led national charity that educates, connects and invests in Indigenous people. Their vision is to enrich Canada through Indigenous education and by inspiring achievement.

In March, over 900 high school educators and their First Nation, Inuit and Métis students attended Indspire's Soaring: Indigenous Youth Career Conference, in Winnipeg, Manitoba. At Soaring, students explored post-secondary options through campus tours, engaged in career workshops and an interactive tradeshow, and learned about Indspire's bursaries and scholarships.

At the conference, **Mining Matters** partnered with HudBay Minerals to provide hands-on activities during the interactive tradeshow. We thank Hudbay Minerals for the opportunity to contribute to the Indspire vision.

The event concluded with the Indspire Awards evening honouring Indigenous Canadians who have contributed to their communities with excellence in their talents and skills. We congratulate them all! indspire.ca/



National Indigenous Peoples Day

Mining Matters was proud to participate in National Indigenous Peoples Day in Timmins, at Mountjoy Historical Participark. **Mining Matters** partnered with Goldcorp Porcupine Gold Mines to deliver educational and engaging activities, bringing awareness to the importance of mining, minerals and Earth science.

Activities included learning about rocks of Ontario, discovering minerals by testing their characteristics and *Product Matching* – an activity where participants explore different minerals and match them to the everyday products in which they are found.

Attendees were also able to learn about the reclamation process of the mining cycle by observing before and after photos of mine sites. Over 150 individuals participated in these activities presented by **Mining Matters** and had the ability to take home a piece of polished amethyst. **Mining Matters** has partnered with Indigenous communities for more than 15 years and looks forward to many more opportunities to collaborate in the future.





Internship Highlight

The Green Jobs – Science and Technology Internship Program, funded by Natural Resources Canada and administered through the Mining Industry Human Resources Council (MiHR), provided **Mining Matters** with wage subsidies to assist youth in finding key work experience to aid in their future success. Intern, Mark Paddey is a recent graduate from McMaster University in Earth and Environmental Sciences. By combining his background in geology, with years of experience working with youth in Canada and abroad, Mark has been able to spread his passion for Earth sciences while bringing awareness to Canada’s Indigenous students about the minerals industry.

This internship has opened new doors for Mark regarding future career opportunities, helped him forge valuable connections and has given him the chance to travel across Canada while learning about some of the challenges faced by the mining industry and the communities it affects.



*“Working with **Mining Matters** has been an enlightening experience to say the least. I’ve had the incredible opportunity to see a side of Canada that few ever get to see. It’s been an exciting challenge to develop new and creative ways to engage students, while teaching them the fundamentals behind Earth science, rocks, minerals and the mining industry. I’ve had the privilege of working with a highly dedicated team, who is constantly inspiring me to challenge myself, while providing me with the resources I need to succeed.”*
– Mark Paddey, Intern, Indigenous Communities Education and Outreach Programs, November 2017 to present

*“Working with the **Mining Matters** team as an Intern provided me with invaluable work experience. As an Intern, I was able to travel to remote First Nations communities in Ontario to plan and teach Earth Science programs to youth and community members. I always felt my work was important and that I was part of a motivated and enthusiastic team. The knowledge that I gained while working with **Mining Matters** has provided me with various opportunities to advance my career in geoscience.”*
– Kendra Zammit, Intern, Indigenous Communities Education and Outreach Programs, November 2017 to March 2018

*“Working at **Mining Matters** was an amazing experience for me. It allows you to work with, and get to know, like-minded individuals from similar educational backgrounds. The networking that is available at your fingertips while working here is incredible; from going to the PDAC Convention to Gem and Mineral Shows, you are exposed to many different types of conventions, conferences and training. I gained many useful skills as an intern, which include, learning how to explain complex ideas to others, public speaking, project planning and many more. I will always be grateful for my time at **Mining Matters**.”*
– Brittany Charnley, Intern, Indigenous Communities Education and Outreach Program, October 2017 to May 2018



Summer Students Thank Canada Summer Jobs

Thanks to Canada Summer Jobs, **Mining Matters** welcomed Cindy Li and Ameerah Rashid as part of the Indigenous Communities Education and Outreach Programs team. This summer, Cindy and Ameerah delivered *Mining Rocks* Earth Science Programs in remote and rural communities across Ontario and participated in outreach events across Canada.

“I couldn’t ask for a more perfect way to spend the summer: sharing my passion for Earth science and its applications to the mining industry with people across the country. While teaching others, I was also able to learn so much about mining and Earth science from the different people I have met. I’m excited to apply my new knowledge as I continue my undergraduate studies in environmental science.”
– Cindy Li, Environmental Science, University of Waterloo

*“During my time at **Mining Matters**, I was able to apply my love for geology and the environment by teaching Indigenous youth across Ontario about these topics. This allowed me to gain unique experiences with people from remote communities and in doing so I established many valuable connections throughout the region. Overall, I gained incredibly rewarding skills that I will take with me as I pursue my graduate studies.”*
– Ameerah Rashid, Earth Science, University of Waterloo



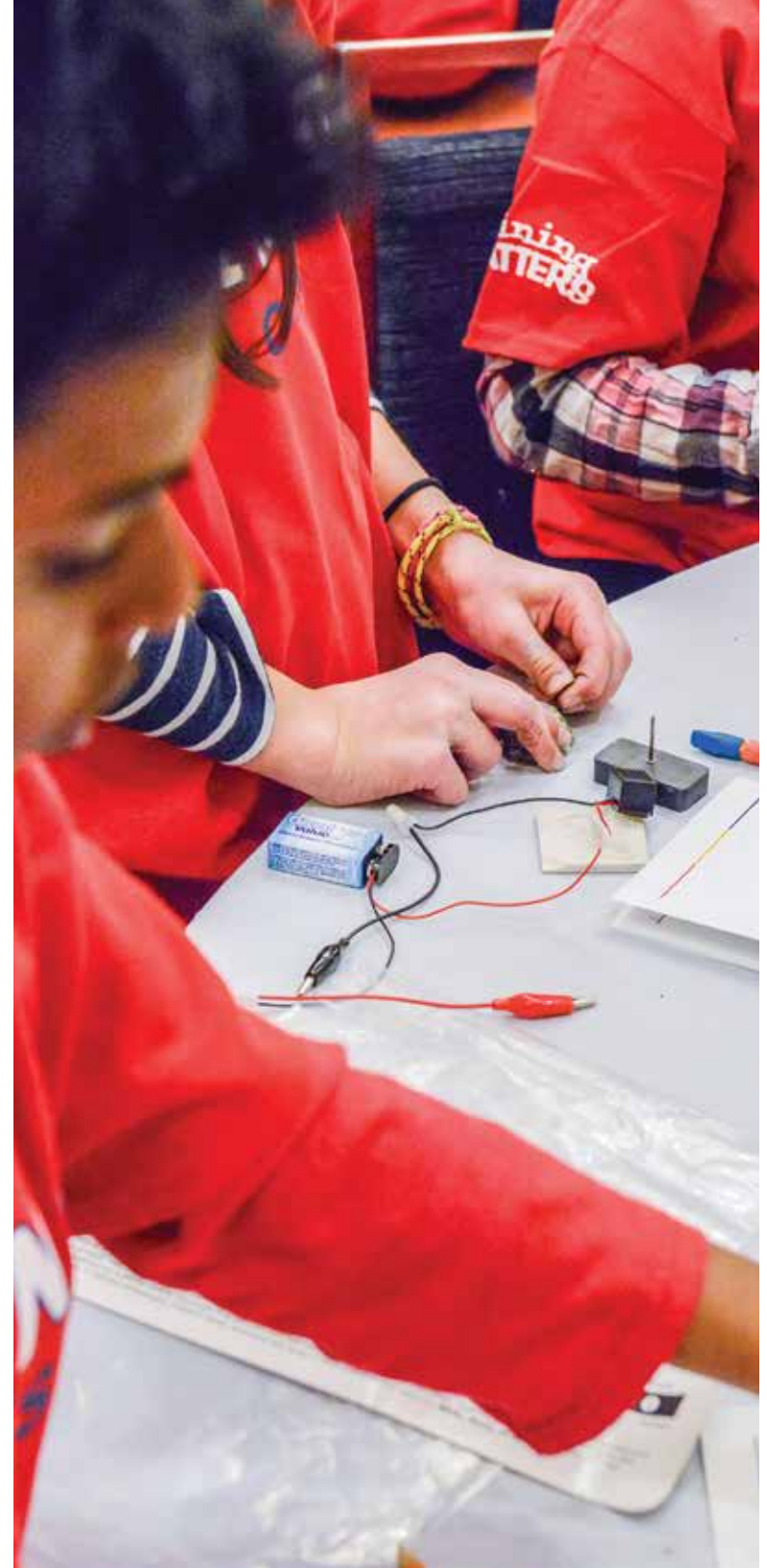
New Partnerships with DiscoverE and Frontier College

At **Mining Matters**, we always look for new ways to introduce students to rocks, minerals and mining. When we partner with other educational programs, customizing our unique kits and hands-on learning materials for their wider audience, we are thrilled to be able to inspire even more students than we can reach with our own resources. This year, **Mining Matters** partnered with two outstanding educational organizations to provide activities that were implemented in their exciting summer camps across northern Canada.

The DiscoverE program, run by the University of Alberta's Faculty of Engineering, delivers engaging summer camps incorporating math, science and engineering activities to youth across Alberta, British Columbia, Saskatchewan and the Northwest Territories. In 2018, in addition to their Edmonton campus summer camps, their teams delivered 74 off-campus camps, travelling to Aklavik, Fort Providence, Inuvik, Saddle Lake, Sturgeon Lake, Tuktoyuktuk, Cold Lake, Alexis First Nation, Fort McMurray, Wabasca, Whitefish (Goodfish), Yellowknife, Augustana, Fort Chipewyan, Fort Vermillion, Fort McKay, Janvier, Hinton, Jasper and East Prairie Settlement. Many of the camps included **Mining Matters** customized kits for their youngest campers, which featured fossils, geologists' tools, and activities such as building minerals out of Lego. The kits were packed with enough rock and mineral-based activities to entertain and inspire students for a whole day.

Mining Matters also partnered with Frontier College, a Toronto-based literacy organization that runs Summer Literacy Camps across Canada to prevent summer learning loss and to provide science, technology, engineering and math (STEM) activities. **Mining Matters** kits enriched the STEM component of the camps, giving camp counsellors new materials to work with and helping youth practice their reading and writing skills while learning about rocks, minerals, metals, mining and the environment. A total of 95 different **Mining Matters** activity plans were used across the camps, including popular activities like building an underground mine model, breaking geodes, testing the properties of minerals, learning about aquatic ecosystems, creating a model of the Earth's structure and completing the word puzzles found in the *Mining Matters Activity Book*. Youth in twelve First Nations communities—in British Columbia, Alberta, Saskatchewan, Manitoba and New Brunswick—benefitted from the inclusion of our kits.

The DiscoverE and Frontier College initiatives reached 1,048 young people. We are confident these two partnerships significantly increased awareness of Earth science and mining in Canada.





Thank you to our PDAC Education Program Partners:

AMC Mining Consultants, Association of Professional Geoscientists of Ontario Education Foundation; Boart Longyear; Carleton University; Geo Labs; Geosoft Inc.; Laurentian University; Noront Resources Ltd.; Ontario Ministry of Energy, Northern Development and Mines; Overburden Drilling Management; Port Colborne High School; SGS Canada Inc.; Thunder Bay Community Economic Development Commission; University of Toronto; University of Waterloo Earth Sciences Museum

PDAC Convention 2018

The theme of the 2018 Teachers' Day Event was "Big Data in Mineral Exploration, Mining and Education" and focused on the role that data's exponential growth, availability and use play in mineral exploration, mining and education. The event included plenary and concurrent hands-on learning sessions, focused on mineral exploration, geoscience, expert industry and education presenters, an elementary *Deeper and Deeper Workshop* and a secondary workshop that debuted our new activities about metals. Teachers' Day participants also had access to the Trade Show where they toured exhibits promoting the latest technology, products, services and global mining jurisdictions.

The Junior Day Program involved 60 enthusiastic grade 4 students, teachers and parents from Agnes Taylor Public School, in Brampton. Students visited the Trade Show and participated in a series of hands-on Earth science

and mineral resources on learning activities that focused on minerals and rocks, optical properties of materials, natural resources in Canada and the properties of metals.

The Senior Day Program included 80 high school students in grades 9 through 11 and teachers from Dr. Norman Bethune Collegiate Institute in Scarborough. Activities included *The Core Logger Basics*, focusing on exploration geology; *Optical Properties of Earth Materials* focusing on fluorescence, phosphorescence and physics; *What's Where? Why There? Why Care*, focusing on the types and location of natural resources in Canada and their uses and *Properties of Minerals and Metals*, new activities that make the connection between the physical properties of metallic minerals and manufacturing.



Exploring Together: Field Trip Subsidy Program

The best way to learn about Earth science is to see it in action. Every year **Mining Matters** offers a Field Trip Subsidy Program to help teachers take their students on unique field trips to stone, sand and gravel, mining and geoscience venues. The subsidy helps cover entry fees and transportation costs to these locations.

These field trips help students make the connections between what they are learning in class and the real world. They see where some of the things they use every day come from and are exposed to a wide variety of career opportunities.

Last year **Mining Matters** provided subsidies to help 19 schools across the country. Trips included visits to museums, science centres, quarries, conservation areas and tours of local areas of geological significance. Last year alone, 912 students and 85 teachers and adult chaperones benefitted from the subsidy.

After a trip to Scenic Caves in Collingwood, Ontario, Luanne Nobel, a grade 4 teacher said, "This trip helped students appreciate the properties of rocks, recognize different types of rocks and recognize examples of erosions. Students returned from the trip excited about their geological adventure. This will inspire their continued excitement and interest in this area of science."

Mining Matters would like to continue to help schools access these fantastic trips, and to increase the number of students provided with hands-on, real life exposure to the world of rocks, minerals, metals, mining and geoscience. Please consider becoming a sponsor of the Field Trip Subsidy Program.



Thank you to our Field Trip Subsidy Program Sponsors:

Argo Gold Inc.	Midland Exploration	Transition Metals Corp.
Donald Bubar	Northern Shield	Tri Origin Exploration Ltd.
Kesselrun Resources	Red Pine Exploration Inc.	
Marathon Gold Corp.	Ressources Sirios	

Mining Matters Far and Wide!

"We are pleased to be ongoing supporters of Mining Matters and the terrific work they do, including raising positive awareness of the resource industry by informing students, supporting educators, and promoting careers in the industry. We view our support of Mining Matters as part of a long-term strategy to raise positive awareness about the resource industry that is not only important to our business, but also critical to the economic success of our resource-rich country." —Glen McFarland, Senior Partner, UHY McGovern Hurley LLP

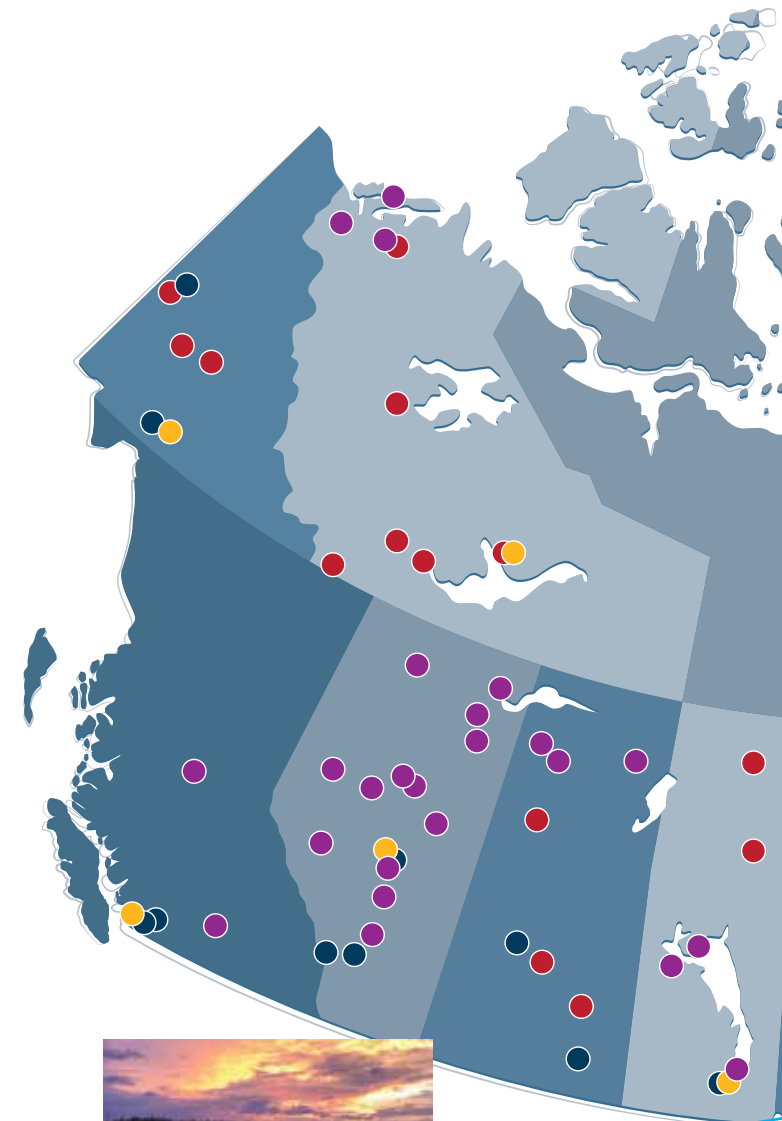
"Mining Matters has proven to stage events worthy of support from all those who collect a fee or make a living in the mining sector. Whether it be a full corporate sponsorship or the mere purchase of a ticketed event, there is a level for all to support! I am no longer involved in the sector after many years yet still enjoy supporting such a worthy cause through St Patrick's Parade Society enjoying the Hockey Tournament and Golf Tournament. Our industry needs to find and support worthy causes such as Mining Matters." —Shaun Ruddy, Chair, St. Patrick's Day Parade

"From someone who grew up in Sudbury and has been involved in the mining industry most of my life I am happy to support a group that helps get children from across the country involved in the industry from such a young age." —Matthew Strain, Director of Forestry and Specialty, Totten Insurance Group —Resource Division

"The Business Development Directorate within Crown-Indigenous Relations and Northern Affairs Canada is pleased to continue to support The Mining Matters Program. The delivery of Mining Rocks Earth Science Programs to Indigenous youth, educators, community members in First Nations communities and non-Indigenous communities is important and key to their success." —Rebecca Weisgerber, Program Officer, Crown-Indigenous Relations and Northern Affairs Canada

"BMO Capital Markets is delighted to be a long-time sponsor of Mining Matters to support its efforts in bringing knowledge and awareness of Canada's geology and mineral resources to students, educators and the general public. For almost 25 years, Mining Matters has been reaching students at an early age, educating them about the importance of the mining industry in Canada. The modern world simply cannot function without metals and mining – Mining Matters' grassroots work is critical for generating broad support for the industry." —Ilan Bahar and Jamie Rogers, Managing Directors and Co-Heads, Global Metals & Mining Group BMO Capital Markets

"Kinross is pleased to sponsor Mining Matters programs to help students, educators and the public appreciate Canada's geology and mineral resources. In a fun and creative environment students learn about the importance of mining as an industry, the range of future career options, and the positive impact mining can have on communities. The great work of Mining Matters is helping to develop the next generation of industry leaders." —Maria Rodmell, Director, Community Relations, Kinross Gold Corporation



Nibinamik First Nation,
Summer Beaver, ON
Mining Matters has travelled to
Nibinamik for the past seven years, since
the beginning of our Ring of Fire program.



- Teacher Training and School Programs
- Indigenous Communities Education and Outreach Programs
- Outreach Programs
- Partnership Programs

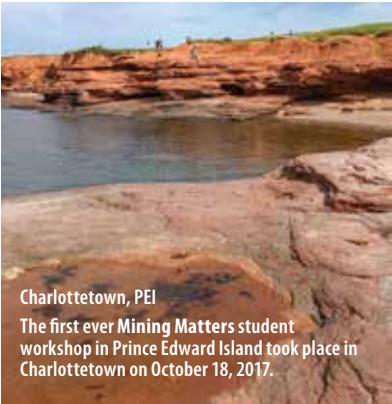
“What the kids liked about your program is everything. They enjoyed every activity you guys did especially when we made our fossils. It was a great learning experience for them. Thank you for coming and we hope you guys can come visit us again next year.” –*Krystal, Neskantaga First Nation*

“Mining Matters programming was delivered to over 100 Indigenous youth nationwide at the Outland Youth Employment Program. The programming was interactive, engaging and relevant to the day-to-day lives of the participants. After completing the program, participants had a new understanding and appreciation for the importance of mining. Many of the participants have expressed a keen interest in pursuing a career in the mining sector. Thank you Mining Matters for a well thought out and expertly delivered program!” –*Sarah Ambroziak, Outland*

“The mining industry is once again at a critical juncture - market demand is slowly returning and the entire industry is beginning to plan for yet another cycle of investment and growth. We have a golden opportunity to challenge conventional wisdom and rethink what is the best way to deliver metals and minerals to our global consumers. Our collective future relies on exceptional, diverse teams to develop better ideas that are smarter, more efficient, and innovative.

We must ensure that future generations of miners, engineers, and scientists will be able to solve our sector’s toughest challenges. We know that our children’s future aspirations are defined early in their schooling, so want to connect with them early. Our support of Mining Matters is key to achieving that goal.” –*John Bianchini, Chairman and Chief Executive Officer, Hatch*

“OceanaGold is a responsible mining company that vehemently believes that to operate a sustainable and successful mining operation, the strong endorsement of communities and other stakeholders is required. Earning this endorsement takes time and commitment from all parties and requires open and respectful communications. At the heart of these communications is the proper education and understanding of the benefits and impacts of any operation, often at the grassroots levels. Mining Matters provides a unique and critical touchpoint as an impartial third-party in communities that have mining activities. Their robust curriculum has equipped countless children and other stakeholders the opportunity to learn about our industry. We are happy supporters of their mandate and the high calibre of professionals who make a real difference.” –*Sam Pazuki, Vice President, Investor Relations, OceanaGold Corporation*



Charlottetown, PEI
The first ever Mining Matters student workshop in Prince Edward Island took place in Charlottetown on October 18, 2017.

Thanks to our Contributors!

Precious Metals



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Registration Number: 88775 6435 RR0001



Rocks + Kids = Opportunities

Mining Matters is giving back to its community. In early 2017, **Mining Matters** introduced a new program called *Rocks + Kids = Opportunities* for schools in neighbourhoods facing socio-economic barriers in the Greater Toronto Area. The program is free of charge and is designed for students to gain interest, knowledge and perspective in the sciences while exploring potential careers in Earth science, geology and mining.

Last year *Rocks + Kids = Opportunities* programming exceeded expectations as 43 workshops were delivered, reaching 1,054 students across 21 different schools.

These educational workshops motivate students to work together to understand the minerals industry through interactive activities run by the **Mining Matters** team. Classroom teachers are given a list of activities, from which three are selected and facilitated with the students. Activities range from identifying minerals by testing their properties to learning about the different rock types and how they form. *Rocks + Kids = Opportunities* was recognized as part of the 2017 Toronto District School Board (TDSB) Partner Appreciation Celebration.

The program has received positive feedback not only from the TDSB but from students and teachers alike. **Mining Matters** is grateful for the support and excited to continue educating students in this way.



Mining Matters thanks Kinross Gold for their support of *Rocks + Kids = Opportunities*.

STEM Camp Partnership

In summer 2017, **Mining Matters** spent two weeks delivering programming to over 1,300 children and youth attending STEM Camp programs in Southern Ontario. Our workshop focused on the use of minerals and metals in the manufacturing of wind turbines.

It also featured activities that tested physical properties to distinguish between metallic and non-metallic minerals. Participants competed in an Engineering Design Challenge to build a wind turbine and see if theirs could produce the most energy. As part of the Challenge, the participants had to consider how different choices made during the construction process would affect the efficiency of the wind turbine, including number of blades and motor position.

What's WHERE and Why Care?

Mining Matters partnered with libraries in Calgary, Charlottetown and Moncton during National Science Literacy Week, September 17 to 23, 2018 offering "What's WHERE and Why Care" Workshops that engaged youth ages 9 to 14 to work collaboratively to identify properties of Earth science materials and understand where and how these resources form. The goal of the workshops is to enhance skills in science literacy, numeracy, teamwork, technology use and problem solving. Topics included: Metallic and Non-Metallic Minerals, Renewable and Non-Renewable Resources, Minerals of Canada, Provincial Geology, Product Matching, Amethyst Jewellery Making and Explore for More Career Exploration.

Funding was provided by Natural Sciences and Engineering Research Council of Canada (NSERC).



Girl Guides of Manitoba Take on the Geoscience Aware Challenge

The Geoscience Aware Challenge was created for the Girl Guides of Canada, Manitoba Council through a partnership between **Mining Matters**, Girl Guides of Manitoba, the Government of Manitoba, the Canadian Geoscience Education Network and Women Who Rock. This new initiative explores a series of Earth Science Literacy Principles through more than 30 hands-on learning activities. Guides, ranging from Sparks through to Rangers, earn their Geoscience Aware Challenge badge by completing a requisite number of activities.

The Earth Science Literacy Principles the Guides will explore are:

- Earth is an ancient planet
- Earth has a fascinating geological history
- Earth is a diverse system of rock, water, air and life
- Earth's people and mining are interconnected
- Earth's mineral resources require our care
- Earth has way more to explore
- Geoscience rocks



In April 2018, **Mining Matters** delivered a training workshop to 40 Guide Leaders to prepare them to implement the Challenge with their groups. Plans are underway for a second workshop that will support the first cohort of Guides, to complete the Challenge. The Challenge officially launched in Fall 2018.

groundWORK 2018

The 2018-2019 edition of the groundWORK newsletter provides educators with a wealth of information including articles, updates and resources. Articles feature the element cobalt, including its historical and modern uses, and robotics, as a technology. Professional learning programs are highlighted, including the 2019 PDAC Convention Education Program and the Mineral Resources and Mining Education Tours. A crystal growth activity is featured for junior students and a metals investigation hands-on learning activity, aimed toward senior students is included. New education and classroom resources are described and learning opportunities like the Field Trip Subsidy Program and WHERE Challenge are promoted.

WHERE challenge

Sponsored by Teck

What on Earth is in Your Stuff? And WHERE on Earth Does it Come From?

The WHERE Challenge is a national contest through which students showcase their knowledge of mineral and petroleum resources in creative ways. WHERE simply stands for **W**ater, **H**azard, **E**nergy, **R**esources and **E**nvironment which represent the fields in which geoscientists work. The challenge is to choose a common item and discuss the minerals that are used in the making of this item. In addition, students must present where these minerals can be found and explain how they are used in the product. Winning entries from last year's contest discuss the uses of nickel (in scissors, pots and pans) and crude oil in plastic (used to make keycaps).

The annual contest provides students between the ages of 9 and 14 the opportunity to learn more about mineral resources and helps them understand how rocks and minerals are an integral part of our lives.

The 2017-2018 WHERE Challenge received entries from all the major regions of Canada, except the territories. There was a significant increase in participation from students in the Atlantic Provinces, which can be attributed to the educational workshops that were delivered in these locations. In total, 667 students submitted a combination of videos, poems, storybooks and other literary, media or graphic design entries that explain the use of minerals in everyday items.

WHERE Challenge workshops reached more than 1,200 new students with information about the importance of rocks, minerals, metals and mining in everyday life. Workshops consisted of engaging hands-on activities that aimed to generate excitement and curiosity in youth regarding the Earth's non-renewable resources.

The WHERE Challenge also reached the public through social media posts on Facebook and Twitter as well as by handing out postcards at public events.

Mining Matters would like to thank the 36 judges across Canada who helped assess and evaluate the entries. A special thanks to Canada's largest diversified resource company, Teck Resources Limited, for supporting the WHERE Challenge through a three-year sponsorship.

The 11th annual WHERE Challenge launched on September 17th, 2018 in conjunction with Science Literacy Week and will run until March 7th, 2019. There are over \$10,000 in cash prizes to be won. To learn more about the WHERE Challenge and to enter the contest, visit earthsciencescanada.com/where/. If you would like to be a judge, please visit MiningMatters.ca.



The poster features the 'WHERE challenge' logo at the top, with 'Sponsored by Teck' and the 'Mining Matters' logo below it. The central text asks 'What on Earth is in your stuff?' and 'WHERE on Earth does it come from?'. It includes several images: a girl taking a selfie, a group of children on a bicycle, a person working on a laptop, a person playing basketball, and a group of children around a globe. At the bottom, it says 'Discover the science around you!' and 'MiningMatters.ca'. Logos for 'Science Literacy Week Workshops Presented by NSERC CRSG' are at the very bottom.

Water • Hazards • Energy • Resources • Environment

Museum Partnerships

Over the past year, **Mining Matters** continued its partnership with various museums across Canada in an effort to bring Earth science education to a wider audience. Here are some highlights:

Redpath Museum

Mining Matters joined efforts with geoscientists at the Redpath Museum in Montréal for a full day of professional development. Teachers received in-service training on **Mining Matters** classroom resources and participated in a field trip to learn about Montréal's building stone and explore the geological features and history of Mont-Royal.

Canada Science and Technology Museum

Last year, the Canada Science and Technology Museum recognized Patricia Dillon as a *Superhero of Industry*. Her superpowers included "Infinite Wisdom: Trusted leader of mining organizations"

and "Mind Control: Can instantly make people understand geology." Since then, **Mining Matters** continues to partner with the museum.

During Family Day weekend, **Mining Matters** travelled to Ottawa to join the Cool Science Saturday event at the Canada Science and Technology Museum. Staff facilitated activities that teach kids about the properties of minerals and their uses. Volunteers from Carleton University's Department of Earth Science also helped out at the **Mining Matters** booth.



In addition to learning about different minerals, visitors connected their use in everyday life through an activity called *Product Matching*. Visitors learned about the importance of reclamation through a matching game that shows images of mines during operation and what the site looks like after the mine is closed.

Mining Matters would like to thank the Canada Science and Technology Museum for inviting us to participate in such a fun and educational event.

Canadian Museum of Nature

In April 2018, **Mining Matters** returned to the Nation's Capital to take part in Science by Night, hosted by the Canadian Museum of Nature. Those who visited the **Mining Matters** booth were tested on their mineral knowledge and took pictures "in" an underground mine using our photo booth.

Mining Matters also partnered with the Canadian Museum of Nature during the Canada-Wide Science Fair in May. The Canada-Wide Science Fair engages youth in science, technology, engineering and math by challenging students to invent solutions to real world issues. It is a celebration of the Nation's brightest young scientists and is attended by thousands of visitors. **Mining Matters** exhibited a booth featuring a travelling exhibit about rocks and minerals from the Canadian Museum of Nature and our unique hands-on activities.

Royal Ontario Museum

The Royal Ontario Museum has provided professional development in Earth science to our growing team and has generously provided resources in support of our education and outreach efforts. In June 2018, the **Mining Matters** team was invited to a behind-the-scenes tour of the Centre for Earth and Space collections, including minerals, rocks, meteorites and gems.

Mining Matters would like to thank Katherine Dunnell, Ian Nicklin and Beth Lymer for hosting our tour and for the donation of specimens to our education programs.

Fundy Geological Museum

In August, **Mining Matters** participated in the 53rd annual Nova Scotia Gem and Mineral Show in partnership with the Fundy Geological Museum in Parrsboro, Nova Scotia. The event attracted thousands of rockhounds from the Maritimes and beyond to this small town with a rich geological history, where families can visit the museum and tour fossil sites. **Mining Matters** facilitated hands-on activities for visitors of all ages to promote awareness of Canada's geology and the importance of rocks, minerals, metals and mining.

Quartermain Earth Science Centre

Mining Matters has collaborated with the Quartermain Earth Science Centre since February 2017 by donating teaching resources and mineral samples to the annual EdGEO Teachers' Earth Science Boot Camp that takes place in Fredericton.



The Quartermain Earth Science Centre highlights the beauty and excitement of geology in the form of exhibits, displays, programs and events. The Centre provides visitors with a geological journey through the planet's interior, seismicity, volcanism, structure, economics and evolution of fossilized plants and animals. **Mining Matters** is grateful for the partnership and happy to have continued to support the Quartermain Earth Science Centre in their efforts to equip teachers with the knowledge and tools to educate students.

Mineral Resources and Mining Education Tours

Since 2010, **Mining Matters** has been delivering tours to educators in partnership with the Canadian Ecology Centre, the Ontario Mining Association and the Canadian Institute of Mining, Metallurgy and Petroleum.

2018 marked another successful program that saw the delivery of two tours, including our first ever held as a field trip in a Conference Program; the Ontario Youth Apprenticeship Program Symposium. In this Life in a Mining Camp Tour, 14 specialized teachers from across Ontario experienced an overnight stay at North American Palladium's Lac des Iles Mine, participated in a Management Meeting and toured the underground mine, the surface operation, the exploration shack, and the mill.

The Mine Life Cycle Tour involved 22 participants from Ontario and Québec and focused on the mineral resources and mining of the Timmins Camp. Participants toured Goldcorp Hoyle Pond Underground Mine and the Hollinger Open Pit. Participants also visited geologic sites of interest in Eastern Ontario and engaged in several **Mining Matters** professional development workshops. One additional tour will be delivered in 2018 to engage teachers-in-training at Nipissing University.





Resources for Future Generations

The Resources for Future Generations Conference (RFG) took place in June 2018, in Vancouver. **Mining Matters** and the wider Earth science community were active members of the Education, Outreach and Early Career Committee and Technical Program. Ultimately, the “Education and Knowledge” Technical Program included 19 technical sessions and panel discussions, with subjects ranging from Geoheritage to Education Research. **Mining Matters** served as both a presenter and a Chair, in four sessions.

The committee also developed education and outreach programming, associated with the conference, aimed toward educators, students and the public. These elements included an Earth Science Educator Workshop, focused on sustainability and the conference themes of Earth, Minerals, Water and Energy, an Earth Science Communications Workshop and an RFG 2018 EarthCache.

The Earth Science Educator Workshop was held at the Burnaby Campus of Simon Fraser University and included topics focused on sustainability, Earth science and technology. BGC Engineering supported the delivery of the workshop, focusing their content on groundwater, groundwater modeling and virtual reality.

The Earth Science Communications Workshop was attended by 50 delegates from around the world, including countries such as Ireland and the United States. Participants discussed foundational principles, hands-on learning and strategies for effective communication in a variety of forums.

The RFG 2018 EarthCache Program was an important educational component of the conference, intended to provide both delegates and people from Vancouver with an opportunity to learn about some of the interesting and unique geological features located in the Vancouver area, through the exploration of a series of EarthCaches.

Strategic Plan

It’s always good to take stock, re-evaluate goals and update plans. In Spring 2018, the **Mining Matters** Board and senior management team undertook a strategic planning exercise to identify strategic pillars and areas of focus. We came up with a three-year plan (2019 – 2021) to guide our day-to-day work.

In addition to our ongoing education and outreach programs, we will focus on the following:

- Developing a multi-pronged approach to funding to help us achieve our mission
- Working with existing partners and developing new partners to channel resources into specific delivery models
- Implementing technology to improve and refresh our education materials
- Rebranding **Mining Matters** with a fresh look and feel, potentially adopting a new name
- Attracting and retaining staff in core functional areas and addressing turnover in program delivery roles

We would like to thank the Management Consultants from KPMG, Benjamin Burkholder, and Boden Anderson for generously donating their time and expertise.

Invest in Mineral Resources Education

Mining Matters is grateful for the contributions of many loyal supporters that have made our goals a reality. Your donation does make a difference! It provides the foundation for our important work and is critical to our ongoing vision of bringing Earth science to life.

As a charitable organization, **Mining Matters** program development and delivery are made possible only through the financial sponsorship, donations and in-kind contributions from the mineral and aggregate industries, individuals, foundations, corporations and government.

We are asking for your support, so that we may continue to provide current information about the importance of rocks, minerals, metals and mining in everyday life and the diverse career opportunities available in the minerals industry to students, educators and the public.

An official charitable receipt will be issued for contributions \$25 and greater. For more information or to donate, please contact mfraser@miningmatters.ca or call 416-863-6463 ext. 334 or donate online at MiningMatters.ca.

Donating Shares

Donating shares to **Mining Matters** may be of interest due to the considerable tax benefits that can be realized. The elimination of capital gains on stocks, bonds and mutual funds means that a contribution results in a tax receipt equal to the fair market value of your gift. Rather than being subject to tax on 50% of the gains for shares sold during your lifetime, accrued capital gains on donated shares are exempt from taxes. In effect, the tax benefit arising from your gift is superior to making cash donations.

The donation of flow through shares can produce even greater benefit, as a deduction is offered at the time of purchase and a tax credit is generated when the shares are gifted. However, rules apply to the amount of the exemption for capital gains.

Donating Cash

Cash donations to **Mining Matters** are always welcome and are eligible for the Donation Tax Credit (CDTC). In addition, for individuals who have not donated previously to charities, there is the First Time Donor's Super Credit (FDSC). This applies to cash donations and not contributing shares. The FDSC supplements the CDTC with an additional

25% tax credit for a first-time donor on up to \$1,000 of cash donations. Accordingly, a first-time donor is entitled to a 40% federal credit for donations of \$200 or less and a 54% federal credit for the portion of donations over \$200 but not exceeding \$1,000. There are also provincial tax credits, which vary across provinces. Individuals will be considered a "first time" donor if neither the taxpayer nor their spouse or common law partner has claimed the Charitable Donation Tax Credit in any of the five preceding tax years. For example, if the FDSC is claimed in 2017 then the individual cannot have claimed a charitable donation tax credit in any of 2012 to 2015.

To learn more, contact Edward Thompson at 416-366-6083 or egt@interlog.com, or Durham Sims, **Mining Matters** Investment Advisor at RBC Dominion Securities at 416-842-3086, 800-561-4468 or durham.sims@rbc.com. Both Mr. Thompson and Mr. Sims serve in a volunteer capacity with **Mining Matters**.





A Hole in One for the 12th Annual Diamond in the Rough Golf Classic

It was another day of fun, excitement and philanthropy at the 12th annual **Mining Matters** *Diamond in the Rough Golf Classic*, which took place on Thursday, June 14th at Cedar Brae Golf Club. The windy weather did not stop golfers from trying for a hole-in-one to win a trip to Los Cabos. Various themed holes, such as the Mexican Fiesta Hole and the Hawaiian Hole kept up the energy and spirits of participants all day long.

This annual event is a signature event for **Mining Matters** raising funds for educational programs about Earth science and the minerals industry.

Mining Matters would like to thank our Diamond Sponsor IBK Capital Corp. for their continued support, as well as all the other sponsors for making this another successful event.

Tee off with us next year on June 13th, 2019. For more information please contact Sarah Hahn at tournaments@miningmatters.ca.

Annual Hockey Tournament Scores Big for Minerals Education

The Annual **Mining Matters** *Hockey Tournament* took place on Saturday, March 3rd, 2018 at Scotiabank Pond, Downsview Park in Toronto. Twelve teams faced off in an exciting round-robin for the coveted trophy while raising funds for educational programs about rocks, minerals, metals and the mining industry.

After four intense and eventful games, Sprott Mining Inc. of Toronto came out on top and Senior Principal Geologist, Nathan Tribble, couldn't be happier. "Becoming this year's **Mining Matters** Champion feels great. We battled hard and had fun. The tournament brings great mining awareness to the public and we are proud to be a part of such a fabulous fundraising event," said Tribble.

Mining Matters would like to thank all the teams, sponsors and participants for making this day a great success.

Registration for the 2019 Hockey Tournament is now open. For more information, please visit MiningMatters.ca or contact Sarah Hahn at tournaments@miningmatters.ca.



Rock Cycle Ride for Minerals Education

In conjunction with the Golf Tournament was another exhilarating ride for cyclists during the 7th annual *Rock Cycle Ride for Minerals Education*. The *Rock Cycle* takes place each year in parallel to the **Mining Matters** golf tournament and challenges cyclists to an athletically demanding ride near the Rouge Valley.

Cyclists can choose from either a 40-km or 80-km route, which will take them on a scenic ride through the beautiful Rough Valley and allow them to enjoy a meal at the half-way stop in Uxbridge.

Mining Matters would like to thank our Presenting Sponsor Roscoe Postle Associates Inc. and all of the cyclists for taking part.

KPMG Soccer Tournament Brings Home Thousands for Mining Matters

More than 100 mining industry professionals came out to the 10th annual KPMG Mining Soccer Tournament. Barrick Gold Corporation took home the cup this year. Since 2009, this event has helped support **Mining Matters** and other charity initiatives.

This year, the tournament raised \$9,000 for **Mining Matters** Earth science and mineral resources education programs.

Mining Matters is grateful to all who participated and would like to give a special thanks to Lee Hodgkinson, Partner and National Industry Leader, Mining and KPMG for the continued support and commitment to creating positive change within the mining industry and the community at large.





Yukon River Quest Success!

Last year, **Mining Matters** called Glenn Nolan and Maureen Hatherley “skookum” people—skookum meaning strong, impressive, excellent, good and powerful—as they prepared for the Yukon River Quest, an annual 715 km canoe and kayak race from Whitehorse to Dawson City. Well, they did it again this year, completing the race in 69 hours, 26 minutes, placing 69th out of 102 teams. Skookum indeed!

Passionate about minerals education, they asked members of the minerals industry to support them by donating to **Mining Matters**. Our sincere thanks to all our donors who honoured their request.

Speaking of the experience, Glenn said, “Once again, the Yukon River Quest exceeded our expectations. Combining our love of canoeing, paddling an amazing wilderness river with an international field of fellow racers, and being able to raise money for such an important program such as **Mining Matters** made this race special for Maureen and myself. We are already planning and preparing for our participation in the 2019 Yukon River Quest.”

We extend our hearty congratulations to Glenn and Maureen on their incredible accomplishment, along with our thanks for their commitment to our mission.



Save the Date

March 2 – Mining Matters Hockey Tournament

March 3 – Volunteers in the Classroom, PDAC Convention, Toronto, ON

June 13 – Mining Matters Diamond in the Rough Golf Classic

June 13 – Rock Cycle Ride for Minerals Education

Volunteers Hold a Treasure

You hold a treasure. Yes, you! It’s your knowledge and passion. And we hope you might share it. Your years of experience, your enthusiasm for the industry and your willingness to inspire others; those make up the treasure that **Mining Matters** wants to bring to youth in schools. We have excellent resources and activities; what better way to complement them than with your knowledge of the mining and mineral exploration industry.

In March, **Mining Matters** will launch a new Volunteers in the Classroom Program that will help prepare you to present Earth science and mineral resource education to students. A short course being offered during the PDAC Convention will train you to implement an Industry Resource Kit. You will learn key messages, become familiarized with the components of the kit and learn how to deliver the contents, all with your personal touch. It’s a win-win situation; the kids, the industry, **Mining Matters** and of course, you. Everybody benefits. Register now for Volunteers in the Classroom and share your treasure!

Date: March 3, 2019

Time: 8:30 a.m. to 10:30 a.m. (TBC)

Location: MTCC, South Building, Room (TBC)

To register, please contact: info@miningmatters.ca

Who We Are

Our mission at **Mining Matters** is to educate young people to develop knowledge and awareness of Earth sciences, the minerals industry, and their roles in society.

Mining Matters has reached an estimated 700,000 teachers, students and members of the public since inception in 1994.

Mining Matters is governed by a volunteer Board of Directors.

Our three core educational programs are:

Teacher Training and School Programs

Bringing Earth science to life for students and teachers in classrooms across Canada

Indigenous Communities Education and Outreach Programs

Opening a world of opportunities to youth in Indigenous communities

Outreach Programs

Developing an awareness of the mining industry and sparking interest in Earth science learning in people of all ages



Welcome to New Board Member

Mining Matters would like to welcome MaryAnn Crichton to our Board of Directors. A chemical engineer with an MBA, MaryAnn is currently Managing Director, Investment and Business Planning and Senior Partner at Hatch. She has over 30 years' experience with a broad range of mining, metals and exploration companies, as well as financial institutions, private equity, pension funds, investors, industry associations and governments in support of strategy development, marketing, investment and business decisions.

MaryAnn has been a PDAC member for 23 years and joined the Board of Directors in 2017, putting her expertise to work on the Diversity and Inclusion Working Group and the Public Affairs Committee. Elsewhere in the industry, MaryAnn was on the Ontario Mining Association Board of Directors and was the Founding Chair of the Education and Outreach Committee; and served on the Mining Association of Canada Environment Committee. As a member of the Professional Engineers of Ontario (PEO), she was a founding member of the Women in Engineering Advisory Committee and of the Environmental Committee and she received the PEO Order of Honour at officer level in 1995. She is also a member of CIM, Toronto Chapter, and the Mineral Economics Society.

MaryAnn states *"I have always been a strong supporter of Mining Matters and appreciate the work they do. I am committed to promoting the resource industries to students, especially girls, encouraging them to study math and engineering."*

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