

Canadian Geoscience Education Network Annual General Meeting
5:00 p.m. – 7:00 p.m., Friday, May 23, 2014
University of New Brunswick
Fredericton, New Brunswick

Again this year, the CGEN Annual General Meeting had to be abbreviated, so the focus was on priorities, issues and highlights of CGEN and its affiliated groups. Because of the excellent attendance at the meeting, two thematic items proposed for discussion were held for a future meeting. They were: 1. Are we meeting CGEN member needs? 2. Marketing and communications strategy to promote CGEN, its resources and website.

Present: Diane Baldwin, Charly Bank, Katherine Boggs, John Calder, Kevin Cameron, Mark Fenton, Beth Halfkenny, Fran Haidl, Martha Hild, Lesley Hymers, Andy Kerr, Robert McNaughton, Katherine O'Connell, Toon Pronk, Eileen Van der Flier-Keller, Christy Vodden, Miriam Vos-Guenter, Sheila Watters, Janice Williams, Jane Wynne, Graham Young

President's report (Eileen Van der Flier-Keller)

Eileen thanked the CGEN Executive, leaders of CGEN's core projects, and everyone involved in the website revamp for their efforts over the past year. She noted that CGEN's success is the direct result of the commitment and generosity of everyone who volunteers so much of their time and passion to make wonderful things happen.

She reviewed her activities over the past year (see Appendix 1) and reported that her major focus for the coming year would be fundraising. With the Geological Survey of Canada dropping all of its educational materials from its website, CGEN is making a concerted effort to collect and preserve the Geoscape series on its website, and this requires some level of funding support.

Report of the Secretary-Treasurer (Christy Vodden)

See Appendix 2 for the detailed financial report for 2013-2014. Christy reported that as of April 30, 2014, the CGEN bank balance was \$12,645.61 (includes \$412.86 for the Ottawa-Gatineau Geoheritage Project). Of this, \$7,200 is committed to cover the final year of a three-year Canadian Geological Foundation (CGF) grant for the careers website project. This money will be reimbursed to CGEN by CGF in early 2015.

Incoming funds included \$1,000 from the Canada Prize Foundation, which has generously provided this level of support annually for the past eight years, and a \$3,500 grant from our parent body, the Canadian Federation of Earth Sciences. Outgoing funds covered expenses that are detailed in the financial report.

Report of the CGEN web master (Miriam Vos-Guenter)

Miriam, who led development of the EarthLinks site and maintains it, volunteered to become the CGEN web master last summer. Since that time she has worked through several bugs and made improvements (see Appendix 3 for her full report). With the redesigned CGEN website (<http://earthsciencescanada.com/cgen/>), new members now

self register and at the same time can sign up for email notifications when new items are posted on the CGEN blog newsletter.

Miriam reported that existing members had been advised by email from Christy that they had to register for the blog notifications, but response has been fairly low – of 516 CGEN members, only 139 have subscribed. More effort is required to encourage members to use these new communications channels, and Miriam will be working with the CGEN Executive on this in the coming year. Also, for the future, she plans to expand EarthLinks to include YouTube videos, useful apps, and materials linked to Aboriginal traditional knowledge and to geoheritage.

Action: If you have not subscribed to the CGEN newsletter, please do so at <http://www.cgenarchive.org/cgen-newsletter>. Don't forget to reply to the confirming email to complete the subscription. Also, send in suggestions of materials that would work on EarthLinks, especially under the new subject areas, using the form at <http://earthsciencescanada.com/earthlinks/index.php?page=contact>)

Members' reports

Alberta Geological Survey (Mark Fenton)

Mark reported that the AGS is in transition and being merged with a larger organization (the Alberta Energy Regulator), but that interest in outreach is stronger than in past years. He noted the success of two geowalks co-hosted with the Edmonton Geological Society, and the encouraging news that a new museum building for the Royal Alberta Museum slated for opening in 2017 will have a natural resources wing.

Canadian Geological Foundation (Jane Wynne)

Jane reported that she has been renewed as CGF Secretary for another four years, and that she planned to bring samples of products resulting from CGF grants to a future CGEN meeting to show the range of projects supported. There was discussion about the difficulties caused to some grant recipients by the CGF rule that requires all invoices prior to paying out the grant, but Jane indicated that this was unavoidable as this requirement was written into the CGF governance documents.

The CGF grants selection committee met the day after the CGEN annual meeting, and Jane sent along the following summary of their deliberations: The committee reviewed 32 applications for new grants. The total of all requests was \$478,757.45, and the amount available for disbursement was about \$230,000. The committee recommended that 26 grants totalling \$233,995 be awarded for 2014, including four multi-year grants. The bulk of the grants (23) came from the Jerome H. Remick III Endowment Trust fund, with two from the Thayer Lindsley Endowment Trust Fund and one from the GAC Endowment Fund. The full list is at http://www.canadiangeologicalfoundation.org/?page_id=236

Carleton University outreach (Beth Halfkenny)

The annual teachers' summer workshop continues to be well-received and well attended – the 2014 workshop, to be held in June, has 20 participants registered including nine

teachers, three new employees of Mining Matters for professional development, and a representative of the Ontario Stone Sand and Gravel Association. The other major initiative of Carleton's Earth Science Department is Explore Geoheritage Day, which Beth runs each October. The 2013 event had nine sites staffed mainly by university students and members of the Ottawa-Gatineau Geoheritage Project.

There was discussion about creating a national geoheritage day, and Beth offered to provide advice and tips to anyone interested. In her experience, the event works best in the Ottawa-Gatineau region as a pop-up event, because of the permits and waivers required by the National Capital Commission for any of the sites used in their jurisdiction. There was consensus that Beth's model could work well in other regions of the country, and CGEN members are encouraged to consider it for their area.

EdGEO (Beth Halfkenny)

Beth reported that Amanda McCallum had agreed to be the new EdGEO co-chair, but that Laura Clinton would remain involved in an advisory capacity. The past year (April 1, 2013 to March 31, 2014) was one of growth for EdGEO, with 18 workshops attended by 411 teachers – double the numbers for the previous two years. This success brings with it the pressing challenge of finding the money needed to support this increasing interest.

EdGEO benefitted from a generous three-year grant from the Canadian Geological Foundation, but this is in its last year. A new grant is being applied for, and new sponsors are being looked at. The EdGEO newsletter has been reinstated after a hiatus of three years, and it will be used as a fundraising tool. It is posted on the website (<http://www.edgeo.org/>), along with a large number of classroom resources (see Resources tab, Bringing Earth Science to Life and Putting the Earth into Science). Beth encouraged everyone to check out these resources, and to use and promote them to teachers in their circles. Eileen Van der Flier-Keller announced that CGEN was giving EdGEO a \$3,000 grant for 2014.

Geoheritage national initiative (John Calder)

John, one of the organizers of the full-day geoheritage session at the conference, reported that it had been very well attended. He explained that he is trying to set up an informal national working group to develop a list of top Canadian geoheritage sites. He needs input from museums, universities and the geological surveys. The mechanism for discussion and action is still in the works, but may include a Facebook page and conference calls. The list, once created, could be promoted by CGEN as a resource for educators. He gave as an encouraging example Quebec's *Sites géologiques exceptionnels* project (http://sigeom.mrn.gouv.qc.ca/sge/classes/I5101_accueil), which has already vetted over 60 sites that will eventually be proclaimed by the provincial government as such. Miriam offered to post or link to any resulting geoheritage materials on EarthLinks.

Action: Anyone interested in participating in this national project contact John at jhcalder@gov.ns.ca.

Geoparks (Godfrey Nowlan via email)

Godfrey reports that Canada's (and North America's!) first Global Geopark, Stonehammer Geopark in southern New Brunswick, has flourished since its formation in 2010 and is receiving support from both the federal and New Brunswick governments as well as from local corporations. It will be hosting the 6th International UNESCO Conference on Global Geoparks in September 2014.

His report also notes that the Canadian National Committee for Geoparks was very busy in 2013 with three communities applying for Geopark status. Tumbler Ridge, British Columbia, is farthest along in the process. Two UNESCO assessors will visit in June and if their assessment is successful, Tumbler Ridge could join the Global Geoparks Network in late 2014. The proposal for the Bonavista Peninsula in Newfoundland has resulted in a site visit by two members of the Canadian National Committee, and their report is under consideration by the proponents who expect to make a formal application to UNESCO and the Global Geoparks Network in 2014. The third proposal received from Percé, Quebec, is in negotiation for necessary revisions. There has also been interest from many other Canadian groups representing possible proposals for Mont St. Pierre, Quebec; Wells Gray Provincial Park area, British Columbia; Sudbury, Ontario; Cabot Head, Ontario; the Regional Municipality of Wood Buffalo, Alberta; Mount Cabox area, Newfoundland; and Charlevoix, Quebec.

Geoscience Canada (Fran Haidl)

Fran is the outreach editor of the Geological Association of Canada's journal, Geoscience Canada. She encouraged CGEN members to submit articles to her about their projects and initiatives. Jane Wynne suggested Fran review the annual list of Canadian Geological Foundation grants to find some potential story ideas to follow up with the grant recipients.

Action: Anyone interested in preparing an article should contact Fran at Fran.Haidl@gov.sk.ca to discuss.

Mining Matters (Janice Williams via Skype)

Janice reported that Mining Matters continues to engage teachers and students near and far, from New Brunswick to the Yukon, with classroom resources that teach students about the importance of metals, minerals, mining and the careers available. Highlights of the past year included Mining Matters participation in the CIM Mining for Society (M4S) show, May 10-13, 2014, with close to 3,000 participants (general public, local students and teachers) being exposed to Mining Matters programming. Seven activities were facilitated across five pavilions with information and hands on activities about rocks and minerals, mining processes, mining in everyday life and careers. Mining Matters materials were also included in teacher and student bag, and Janice indicated that their participation was appreciated, and the materials and activities were very well received.

Mining Matters also took part in the 2013 Eureka! Festival, a three-day celebration of science for all ages, held each June in the old port of Montréal. Last year, June 12-14, it attracted a record-breaking 85,770 visitors. Students, their teachers and the general public

spent anywhere from two hours to the full day conducting scientific experiments, demystifying technological innovations, and exploring careers in science and technology. Of note, Mining Matters now has a satellite office in Montréal.

Mount Royal University (Katherine Boggs)

Katherine reported that Mount Royal's Earth Science Department is trying to get a high school geology course going in Edmonton. Two teachers are keen, but there are not enough interested students so far.

New Brunswick outreach (Toon Pronk)

Toon reported that the New Brunswick Geological Survey does not have a dedicated outreach position, but that his job includes 5% time for outreach. He welcomed the addition of Ann Timmermans at the University of New Brunswick as curator of its geological museum/instructor, and whose job includes a strong outreach component. The program put on during the Fredericton conference, May 23, was pulled together quickly with her help, and had about 300 student and teacher participants. This *Day of Geology* included six stations providing hands-on activities on rocks and minerals (Building Blocks of the Earth), and fossils and geologic time (Time Travel). That evening, Randy Miller of the New Brunswick Museum gave a public lecture *One Billion Years in One Hour – Stonehammer Geopark*.

Northwest Territories outreach (Diane Baldwin)

Diane reported the encouraging news that the NWT Geoscience Office has hired a new outreach geologist, Landen Powell. She also noted that they were participating in a teachers' conference in September. For more details about their activities, see Diane's report appended to the minutes of the January 31, 2014 CGEN regional meeting held in Vancouver, <http://earthsciencescanada.com/cgen/index.php?page=minutes-of-meetings>.

Ontario Mining Association (Lesley Hymers)

Lesley reported that the OMA "So you think you know mining" video contest had less take up by students this year, and may be facing its last year next year. Surveys of past participants are planned to assess the long-term impact of the contest (i.e. did it influence career choices?). As well, school visits will be added as a component to make the connection more than a one-off connection. Lesley is also working to formalize networking connections with other groups and CGEN members in other cities. See Appendix 4 for detailed report.

Ottawa-Gatineau Geoheritage Project (Al Donaldson via email)

This group grew out of CGEN's Friends of Canadian Geoheritage initiative and has been active for about a decade. In addition to promoting and preserving sites of geological interest, networking is a priority. Fruitful connections have been made with the National Capital Commission resulting in the identification of significant geological sites in their public spaces, with a view to developing interpretative materials. Connections with groups with aligned interests have also been made with some interesting cooperative projects ensuing. The OGGP website has been upgraded in the past year.

[\(http://www.ottawagatineaugeoheritage.ca/\)](http://www.ottawagatineaugeoheritage.ca/). Al's report is attached as Appendix 5.

Saskatchewan outreach (Fran Haidl)

The minutes of the annual CGEN regional chapter for Saskatchewan meeting, held December 4, 2013, give details of this busy group's activities and are posted on the CGEN website at <http://earthsciencescanada.com/cgen/index.php?page=minutes-of-meetings>. Fran noted that the only update is that 20 teachers have expressed an interest in piloting the Earth Science 30 (Grade 12) course in September.

University of Toronto (Charly Bank via Skype)

Charly reported that the Geology Department offers visits with hands on activities to school groups, but the numbers are down because of his heavy workload. It is also involved in a number of activities with other groups, both on and off campus to promote geoscience knowledge and education, including the university open house during March Break, the Toronto Science Festival, a one-week camp for grade 9 and 10 students and Mining for Society.

Charly also noted that the Ontario Institute for Studies in Education is shifting its focus in training teachers from pedagogy to content, and he is hoping to see the earth sciences worked into its programs.

WHERE Challenge (Janice Williams)

The WHERE Challenge, which originated as an International Year of Planet Earth (IYPE) project, is an annual contest aimed at making students understand the integral role of earth materials in everyday items (<http://earthsciencescanada.com/where/>). Mining Matters took it on as a project at the end of IYPE. Janice reported that the future of the contest is in jeopardy owing to a decrease in the number of students participating in it, making the senior managers at Mining Matters question whether running it is the best use of their peoples' time. She tabled a detailed discussion paper outlining the issues and suggesting a new approach (Appendix 6).

Action: All. Read the discussion document and, if interested in helping with the development of the new rubrics for the Challenge, contact Janice (jwilliams@miningmatters.ca).

For the immediate future, the WHERE Challenge will go ahead, using the existing template, for one more year. During the discussion, strong support was expressed for the project, but some interesting facts came to light. Diane Baldwin reported that the WHERE Challenge is a great success in the North, but that teachers do not submit the student output. Given that decreasing participation is a factor in the fate of the Challenge, Janice would like to get hold of numbers of participants who do not submit to add to her metrics.

Action: All. If you know of groups who are using the contest as an educational experience for their students, but not submitting their output, please send this information to Janice.

Yukon outreach (Sarah Laxton, by email)

Mining Week continues to be an excellent platform for earth science outreach activities, as does the Yukon Geological Survey Open House. School connections reach all levels and take place throughout the Yukon. See Appendix 7 for detailed report.

Coming soon...

A major addition to the literature about the geology of Canada, *Four Billion Years and Counting: Canada's Geological Heritage* will be available this fall. Bulk orders (five copies and more) are available at a 40% discount off the regular price of \$39.95.

Action: Anyone interested in pre-ordering can call 1-800-646-2879 or email customerservice@nimbus.ca

Martha Hickman Hild, author of the excellent field guide *Geology of Newfoundland: Touring through time at 48 scenic sites* is working on a similar book for Nova Scotia. Stay tuned for more details.

Next meeting: The 2015 annual meeting will be held in conjunction with the Joint Assembly in Montreal, May 3-7 (<http://ja.agu.org/2015/>). Timing and location to be determined once education/outreach plans for conference are announced.

Christy Vodden,
Secretary-Treasurer
August 20, 2014



President's Report CGEN AGM May 23rd 2014, Fredericton

Thanks:

To all of CGEN's dedicated executive and project leaders for continued great and enthusiastic work – Christy Secretary Treasurer, Miriam Webmaster, Lesley VP, Charly PP, Beth, Laura, and Amanda EdGEO, Godfrey (Geoparks, 4BY book), Janice (Where Challenge)

Accomplishments:

- “International Geoscience Education Survey” 2013 Update – thanks to all CGEN members who compiled information for their province or territory. Ollie Bonham and I summarised and entered the results and submitted the Canadian update, which is now included in the survey, and available on the IGEO website www.geoscied.org and CGEN website <http://earthsciencescanada.com/cgen/>. (Summer 2013)
- CGEN Regional Meeting Vancouver Roundup (Jan 31st 2014)
- Discussions with CSPG Scott Gardiner about a Geoscience Teachers Prize (May 2014)

Ongoing Activities:

CGEN Conference Calls: We have had several calls as needed and to discuss upcoming events and activities.

CGEN fundraising:

CGF grant application for CGEN, Careers, Earthlinks and CGEN Archive websites maintenance, development and marketing - 4 years \$8783.45 for year 1, \$6083.45 for Years 2-4 (March 2014).

Other funding sources which I intend to pursue on behalf of CGEN: NRCan for funds for the Geoscape CGEN Archive website project, and CSPG for Earthlinks development.

CFES (Canadian Federation of Earth Sciences) Council Meetings:

Attended two CFES Council meetings as Outreach Board Member, Ottawa November 16-17 2013, and Calgary April 25-26 2014.

1. CFES new tag line “*The coordinated voice for Canadian Earth Science*” and updated mission statement “To be the coordinated voice of the Earth science community in Canada, ensuring that decision makers and the general public understand the contributions of Earth sciences to Canadian society and the Canadian economy”.
2. CFES Strategic Priorities 2014-2019 (see website <http://earthsciencescanada.com/cfes/>)
 - a. Provide a coordinating role and common voice for member societies and the Earth science community in Canada
 - b. Coordinate public policy advocacy on behalf of Earth Sciences
 - c. Facilitate public awareness of Earth Sciences and Earth Science literacy
 - d. Represent Canadian Earth Sciences internationally
 - e. Provide Service to Member Societies in Particular and to the Earth Science Community in General
 - f. Coordinate support for professional and academic organisations in Canada
3. CFES activities include CGEN, Canadian National Committee for Geoparks, CanGeoRef, IUGS conference “Resourcing Future Generations” 2018 in Vancouver, co-publisher of the Four Billion Years book, National Earth Science Mentorship Medal, represented at PAGSE by Chris Burns (Partnership Group for Science and Engineering www.pagse.org – represents the Canadian science and engineering community to the Government of Canada), voice for Canadian Earth Science at AGI and IUGS.

CFES Outreach Liaison Calls: CGEN as the outreach arm of CFES, hosts these calls to connect those involved with outreach in the 14 CFES member societies. Society representatives report on activities and share information, concerns and ideas. The first liaison call this year was held on March 19th 2014, with participants from CAG -Bob Sharpe, MAC - Mark Badham, Geoscientists Canada - Ollie Bonham, GAC - Ray Lett, PDAC – Vida Ramin, CSEG – Helen Isaac (report), and Lesley Hymers and I representing CGEN. The next call will be in the fall. We have discussed inviting outreach representatives from provincial and territorial surveys.

Upcoming events:

7th International Conference on Geoscience Education September 5-9th, Hyderabad, India <http://geoscied2014.webs.com>

GSA Vancouver October 19-22nd 2014 - Mark Abolins “Involving Pre-Service and in-Service Teachers in Geoscience Research: Innovations and Strategies for Evaluating their Success” Abstracts by July 29th 2014. 3rd International EarthCache Event October 11th 2014

Roundup 2015 Vancouver – addition of a public outreach session – 3-hour session Sunday prior to Roundup. Free and open to the public – goal is to share good “mining in the community stories” kjohnston@ingold.ca

Eileen Vander Flier-Keller fkeller@uvic.ca 250 472-4019

**Canadian Geoscience Education Network
2013-2014 FINANCIAL REPORT**

Balance at last report (as of April 30, 2013) \$11,411.11 (1)

Incoming funds:

Reimbursement CGF, Careers website, year 2 of 3, July 2013	\$7,200.00
CFES grant, December 2013	\$3,500.00
Canada Prize in support of CGEN activities, February 2014	\$1,000.00
Interest (May 2013–April 2014)	<u>\$0</u>
Sub-total incoming	+\$11,700.00 (2)
Total (1 and 2)	+\$23,111.11

Outgoing payments:

1. CGEN core activities/administration

City of Winnipeg, room rental for AGM	\$91.88
Vodden, website, office, catering AGM, flight	\$697.23
Fleiva, CGEN website re-design	\$1,417.50
Fleiva, CGEN website final revisions	\$96.60
Vos-Guenter, website set up	\$247.65
Van der Flier-Keller, BC regional meeting	\$95.20
Haidl, Saskatchewan regional meeting	\$121.18
CGEN bank charges (low balance)	<u>\$3.90</u>
Sub-total	-\$ 27,714.14 (3)

2. Geoheritage (from \$650 held in CGEN account)

Aylsworth, Bell charge for OGGP website	\$140.91
Lafreniere, OGGP website	<u>\$96.57</u>
Sub-total:	-\$237.48 (4)

3. Careers website: redesign & promotion: CGF grant = \$7,200 (years 2 & 3)

Sabean, Terra Factum Consulting, website maintenance (y2)	\$390.00
Market Zone, advertisement, Cdn. Counsellor, May 2013 issue (y2)	\$805.13
Renaud, French translation of new website text (y2)	\$1,053.36
Fleiva, careers website re-design, English & French (y2)	\$2,793.00
Market Zone, advertisement, Cdn. Counsellor, Sept. 2013 issue (y3)	\$805.13
Market Zone, advertisement, Cdn. Counsellor, Nov. 2013 issue (y3)	\$805.13
Market Zone, advertisement, Cdn. Counsellor, spring 2014 issue (y3)	<u>\$805.13</u>
Sub-total	-\$7,456.88 (5)

Total outgoing (3,4 and 5) **-\$10,465.50**

BALANCE as of April 30, 2014 = **\$12,645.61**

- Includes \$412.86 held for geoheritage project.

- Commitments on this balance include CGF careers website (three more ads in 2014-2015 Cdn. Counsellor \$805.13 each totalling \$2,415.39), with total commitments for CGF bridging funds to cover \$7,200 grant = \$4,784.61; Secretary-Treasurer and AGM expenses ~ \$700; and Webmaster expenses/honorarium TBD.
- **Active balance = ~\$6,000**

Christy Vodden
Secretary-Treasurer
May 19, 2014

**CGEN and EARTHLINKS WEBSITES
2013-2014 PROGRESS REPORT
CGEN AGM Annual General Meeting May 24, 2014**

Submitted by Miriam Vos-Guenter (*webmaster*)
(earthsciencescanada.com/cgen/ and earthsciencescanada.com/earthlinks/)

Launch of Websites

In late June and early July of 2013 the new **CGEN** and **EarthLinks** websites went live. After solving some issues with the username and password for the CGEN Members page an email announcement was sent out to our 500 members. Since last July there have been approximately 50 new registrations. An equal number have been removed or updated. The total number of members is currently 516.

The EarthLinks website had some minor grammatical errors and incorrect links at launch time but these were corrected fairly quickly with the help of the developers. This website will be updated twice each year to ensure that links remain current.

The **goals for 2014-2015** are to expand the YouTube video selections and to add two new topics under CGEN's Favorites: "Useful Apps" and "Aboriginal Traditional Knowledge and Outreach".

Bumps in the Road

During the fall of 2013 a number of significant issues surfaced.

1. The new websites were designed to be relatively static rather than dynamic so certain types of changes and updates would require developer input and cost.
2. Christie Vodden was having difficulty emailing newsletters to such a large number of members due to spam limits on the CGEN email account. Each newsletter required 5 or 6 days to mail out to the entire membership.
3. Godfrey Nowlan brought the disappearance of the Geoscape websites to everyone's attention and raised the issue of archiving CGEN documents.

Eileen van der Flier-Keller, Godfrey and I met to discuss these issues. It was decided that I would create a **CGEN Archive** website (www.cgenarchive.org/) to address all three issues. This sub-web would house important documents and allow us to post newsletters via an RSS feed or blog format. This new sub-web would also provide us with more flexibility than the main website and additional features such as social media links, a mobile view and password protected pages can be activated if needed. A simple search function is already available. To accommodate multiple contributors, and to ensure that future executive members could easily take over the archived materials and newsletter, I also created a CGEN Gmail address and Dropbox account.

Christy quickly embraced the Newsletter blog and members were encouraged to subscribe via email. Together we vetted the email list for errors. There are currently 139 newsletter subscribers. Some members (17) have yet to verify their subscription.

Action Plans

- Marianne Quat is in the process of collecting as many Geoscape documents as possible. I will begin posting them on the archive website as soon as they become available.
- Recent newsletters are already being archived and Christy hopes to post some of the more important past newsletters as part of the newsletter archive.
- To meet our 2014-2015 goals a plea for suggestions will be included in future newsletters. We will also be asking for suggestions on how to increase the number of newsletter subscribers.

Canadian Geoscience Education Network- 2014 Annual General Meeting Ontario Mining Association Education and Outreach Activity Report

Existing Programming

Teachers' Mining Tour

- Fully sponsored mineral resource development cycle and Earth science instructional development program, open to Educators across Canada
- Two tours planned for summer 2014
 - July 28-August 1: 5 days of programming held in Mattawa, Sudbury and North Bay
 - August 18-August 22: 5 days of programming held in Mattawa, Timmins and North Bay
- Content has been revised to include more opportunity for teachers to focus on applications of the material to the classroom and where the content fits in the mineral resource development cycle.
- A comprehensive pre-tour reading list has been compiled that includes earth science and mining resources that will help teachers prepare for more technical content.

So You Think You Know Mining Video Contest

- 116 videos submitted in the 2014 contest
 - Awards Gala scheduled for June 3 at the Royal Ontario Museum.
 - **Teachers' Academy** new addition to the 2014 judging panel
 - All Ontario Teachers were invited to join the Academy and serve as volunteer judges for the new \$2500 student award
 - Academy members are also eligible to win \$1000 in a random draw
 - The prize money is to be used to purchase video production equipment at the winning Teacher's school
- **Video Production Workshops**
 - Students and educators provided with hands-on learning focused on the creative and technical tools required to make videos, focused on building capacity in the communities and schools where they are delivered and generating submissions for the So You Think You Know Mining contest.
 - Mineral Resource Development Cycle and Video Production Workshops are delivered in partnership with Noront Resources, DAREarts and Engage Learning Systems in Red Lake and Thunder Bay in November.
 - Attawapiskat workshop rescheduled to September, in favour of delivery in a classroom as part of academic year program
 - Sudbury workshop delivered in partnership with Cambrian College
 - The decision was taken to discontinue Sudbury workshop in favour of a new location/program-a teacher training workshop, in the Greater Toronto area

Let's Talk Science Partnership

- Contributed Earth science and mineral resource development cycle content to the 2014 All Science Challenge Workbook
 - **All Science Challenge** is a science enrichment event for Grades 6, 7 and 8 students across Canada that includes a question and answer competition with a fun, hands-on design challenge.
- Discussions currently underway about how to include LTS in the 2014 Teachers' Mining Tours
 - Contribution of content, including a CurioCity presentation, developing networks with Educators and content gathering for inclusion on the LTS web site.

Kitchener Waterloo Gem and Mineral Club

- A K-W teacher participated in a recent Teachers' Mining Tour.
- As a follow up, I was invited to deliver a presentation to the club about the "Ring of Fire"
- Considering a potential partnership that would include regular contributions to the club, including the children's program

Toronto District School Board Specialist High Skills Major in Mining Program

- The formal application to the Ministry of Education was not submitted in 2013 due to the requirement that industry coop placements be secured prior to the submission.
 - Coop placements continue to be sought although there has been limited success securing them to date.
- Work continues to cultivate the relationship between industry and North Albion Collegiate Institute in the hopes that the SHSM

PDAC Convention

- OMA participated in the Mining Matters PDAC Teacher Education Program
- Supported the delivery of a Discovering Diamonds professional development workshop in partnership with other outreach liaison partners (Charly Bank, University of Toronto; Beth Halfkenny, Carleton University)

Metal Mining and Technology Sudbury (April 26 – May 3)

- The OMA participated in the MMTS, formerly Sudbury Mining Week
- Provided support to the delivery of the photography contest

New Initiatives

Survey of Stakeholders and Career Presentations

- Members of the Education and Outreach Committee and members of the wider Association are concerned that the Association is not maximizing on the value already invested in the SYTYKM contest and that the future HR requirements of the minerals industry may not be met
- As a result, two new elements have been added to the 2014-2015 workplan:

1. Connecting with previous winners of the So You Think You Know Mining video contest to gauge how the contest has influenced their post-secondary education and career path choices
2. Delivering mineral resource development cycle career presentations to 6 communities where mining is present

CGEN Member Professional Development Activities

- Plan some activities for CGEN members (field trips, museum visits, etc.) that are focused on professional development, networking and increasing membership

Friends of Canadian Geoheritage: Annual Report to Canadian Geoscience Education Network, May 2013

Annual Displays:

During the year since our report for the GAC meeting in Winnipeg, OGGP organized poster displays for Pinhey's Point Riverfest (Aug. 11), Ottawa Gem and Mineral Show (Sept. 21, 22) and Ottawa Heritage Day at City Hall (Feb. 14). Once again, our on-site Ottawa Geoheritage Day event in collaboration with Carleton University (Oct. 23) attracted considerable interest (one or more geoscientists and geology students remain present from 10 am to 3 pm at eight prime geosites).

Additional events, talks, geotours:

June 2, 2013. **Geotour of Pinhey Sand Dunes**

Aug. 14, 2013. **Probus Club, Ottawa-Rideau Valley** - The Dependence of Biodiversity on Geodiversity PowerPoint deck retained on line:
<http://www.probusorv.org/13.08.07Donaldson.pdf>

September 27, 2013. **Almonte Lecture Series** - Geoheritage of Eastern Ontario

April 2014. **Geotour of Shirleys Bay** for Boy Scout Group and parents

April 27, 2014. **South March Highlands and Carp Hills Geoheritage Event, Kanata** - One Billion Years in One Day. Talk was followed by two nearby excursions

May 4 2014. **Jane's Walk for New Edinburgh and Rockcliffe** - Geology component for stops on this, one of many annual spring tours in honour of renowned urbanist Jane Jacobs

Website:

OGGP Committee Luc Lafrenière took on the task of upgrading our website. He has done a great job! Check it out: <http://ottawagatineaugeoheritage.ca>

Continuing Projects:

With financial support from Lanark County Tourism, OGGP provided assistance for completion of the new James Wilson display in the Perth Museum. A brochure prepared the previous year that describes a nearby outdoor display of rocks is now available online:
http://www.perthtourism.ca/uploads/1/6/1/3/16138712/perth_geohistory_booklet.pdf

OGGP helped to establish an outdoor Geotrail for the Bonnechere Museum in Eganville. Within walking distance of the museum, it is complementary to the rock and indoor fossil display prepared the previous year, again with financial support from Lanark County Tourism (indoor posters and outdoor signage).

The storm sewer disaster beneath Metcalfe Geoheritage Park in Almonte (required moving the rocks aside for more than a year to allow major repair) is now history. Plans now have been approved by the local Council in collaboration with the Hydro Facility (now in charge of maintenance of the site) to re-establish the display in an adjacent area of parkland. OGGP will contribute advice on the new arrangement, and prepare a booklet comparable to the one now available for the rock display in Perth.

Sixteen large display blocks of biofilm and evaporite structures rescued from outcrops of Paleozoic sandstone within the median of Highway 417 in Kanata during a "geosalvage" operation supported by the Ontario Ministry of Transport and Ministry of the Environment were distributed, courtesy of Cavanagh Construction, to both local universities, three museums and Almonte Geoheritage Park. Allan Donaldson May 13, 2014.

OGGP is currently assisting the National Capital Commission, checking pathways within the extensive parklands under NCC jurisdiction in order to come up with key paces for descriptive signage.

OGGP continues to collaborate with Ottawa Riverkeeper to seek ways to encourage appreciation of geodiversity within and along our rivers. This summer we plan to investigate ways to contribute to revitalization of the Chaudière Falls site on the Ottawa River, recently purchased from Domtar by the Windmill Group, an environmentally aware developer.
<http://www.ottawasun.com/2014/04/22/chaudiere-development-application-filed-on-earth-day>

Allan Donaldson May 13, 2014

The Future of the WHERE Challenge

Concerns with the existing contest

1. The branding (iPod emerging / being digested by the Earth), message ambiguous
2. The career connect has been lost so as the meaning of “WHERE”
3. Website layout is not a user friendly; time consuming to navigate
4. Broad scope of medium used to deliver the message
5. Singularity of rubric; does not address the method being used to address the challenge
6. Structure of the rubric; criteria, evaluating creativity, point breakdown and application of rubric by judges
7. Number and quality of submissions; diminishing returns
8. Oversight and support of the contest

Discussion of concerns

1. While the author understands that the contest came to be during International Year of Planet Earth - IYPE and that fact may account for incorporating Earth in brand identity of the contest, overtime, it has lost its relevance. During the 2012 PDAC Convention random school children aged 9 to 16 were asked for their interpretation of the post card, few to none surmised that the iPod was made of resources extracted from the Earth nor did they know that WHERE was an acronym for Water, Hazards, Energy, Resources, Environment.

2. With the demand for workers in the field of geosciences there is no indication in the current contest that highlights the fact that WHERE represents the various disciplines or areas of studies that geoscientists work.

3. The layout of the website does not have the information readily available and seems to jump from section to section for no real purpose. It can be stripped down to house the key elements of the contest; about the contest (history, rationale, prizes available), past winners (only 1 year available to view), online registration form, and description of categories for evaluation (rubrics). All other relevant documents should be available for download. Educators do not have an infinite amount of time to peruse the web and in some regions access to internet is limited.

4. If there is not system in place to control the type of entries, then how can we ensure that the evaluation will be appropriate to the message and more important consistent. You do not evaluate a movie the same way that you evaluate a poem or a web page. While I am a supporter of differentiated instruction, the means by which the product will be evaluated needs to be relevant to the product.

5. The largest area of concern for me as an educator is the rubric design and the application of the rubric by the judge’s panel in the past. A rubric is a scoring tool that lists the criteria for a piece of work. It also articulates gradations of quality for each

criterion, from excellent to poor. When creating the assignment, it should be clear what the learning and assessment objectives are for the assignment. For instance, a rubric will change in characteristics depending on the type of assignment that is expected, visual arts (poster) versus literary assignment (story, poem). How does one judge an apple against a cherry and call it a sound assessment? Also, consideration should be given to consider **what elements of that assignment can be measured to determine success** in the objective. The current rubric *cross contaminates* select criterion. There are instances where a component is evaluated multiple times.

6. A rubric helps to define “quality work” and allows students to become more thoughtful judges about what constitutes “quality” work. It articulates the expected outcome of a learning task, either *holistically* or *specifically*. It is the scaffolding around with students creates the assignment or final product. The rubric must be applied equally to all projects. The connection of the rubric to a final “grade” on the assignment must be made clear from the beginning. Once established the point breakdown or graduation should not be altered. Doing so is equivalent to changing the rules of the game midstream. Lastly, on the topic of point breakdown and scoring, how relevant is the zero in the scoring of the submission if an entrant fails to meet the outlined expectation then their performance is poor. A zero does not apply if the student *actually* submitted an entry. For more information what a rubric is or is not as well as the types of rubrics that can be created, visit “Authentic Assessment Toolbox” <http://jfmuellet.faculty.noctrl.edu/toolbox/rubrics.html>.

7. Since the inception of the contest (IYPE 2008-09) the number of entries and the quality of submissions has steadily decreased. The same teachers, in the same regions have their students participate, but it appears that no effort taken to ensure that the purpose of the Challenge and the expectations (as outlined in the rubric) are diminishing as well. Dare I conclude that some educators are entering just because they know what their students/school will win?

Looking back, not only the number of entries decreased, but also the number of young people participating:

2008-09 → 208 entries, reach = estimated **1,000** students (Early Bird Draw - EBD))

2009-10 → *No metrics in Mining Matters database*

2010-11 → # entries unknown, reach = estimated **1,600** students (EBD, Teacher Recruitment Challenge - TRC)

2011-12 → 163 entries, reach = estimated **776** students (EBD, TRC))

2012-13 → 106 entries, reach = estimated **277** students (EBD, TRC, KINROSS sole sponsor)

2013-14 → 130 entries, reach = estimated **504** students (New logo, mailers Sept 2013 and Jan 2014 4K schools across Canada, KINROSS sole sponsor)

This decrease may be due to educators vetting projects, selecting only the “best” to submit, but this cannot be confirmed. And if these are the best entries, then something needs to be done mitigate the amount of oversight, inaccuracies and misconceptions that

plague the entries. It is very difficult to identify cause(s) as **Mining Matters** not directly in contact with schools or organisations that participate.

8. The future of the contest is in jeopardy. **Mining Matters**, Teacher Training and School Program is finding increasingly difficult to justify the allocation of funds and human resources (only 2 staff to serve a nation) to manage this contest especially with the return (participants/submissions) diminishing each year. Senior management agreed to give the contest one last run, implementing a few changes with the expectation that the numbers will turn around. If the outcome is not improved I do not know if **Mining Matters** can continue to fund/manage the WHERE Challenge.

Moving forward

A three-tier approach to remedying the situation:

1. Revisit branding and focus of contest (impacts the website and print materials)
 - a) Emphasis what WHERE means – Water, Hazards, Energy, Resource, Environment (2013-14)
 - b) Redesign visual brand (2014 Sept 2013 and Jan 2014 mailers)
 - c) Reorganise, simplify navigation of website
 - d) Randomly assign a theme each year (entries must relate to the theme)
2. Redesign the rubric to reflect only three methods of categories:
 - e) Visual Arts – painting, poster, infographic
 - f) Literary Arts – poetry, story, song writing
 - g) Media Design – video only

and prohibit the use of pre-existing web/internet based platforms that involve students populating with content only. CGEN members currently working in education, grades 4 to 12, knowledgeable in the areas of Measurement and Evaluation, Visual, Literary and/or Media Arts in are invited to get involved in the development of new rubrics. Please contact Janice Williams to voice interest (jwilliams@miningmatters.ca). It would be fantastic if we were able to get as much national representation on this committee as possible.

3. Enlist the support of CGEN members (one of the major hubs of the 10 provinces and 3 territories) in a regional hub (Toronto, Whitehorse, St. John's, Vancouver, etc.) to work with, and support educators and volunteers within schools or organisations as the expert voice to guide (a credible source of information, especially to highlight Canadian content) the production thereby correcting misconceptions and inaccuracies before the projects are submitted.

The regional *WHERE Champions* would be expected to support at least 6 schools / classes/clubs / organisations that could potentially submit 10 - 15 projects each (2 students per project; 20 – 30 student-participants). Since there time is a considerable time commitment involved, **Mining Matters** is prepared to award a honorarium of \$200.00 plus an additional \$50.00 for every 6 school / class / club / organisation the local

WHERE Champion supports (maximum 6) . *It should be noted that a CGEN member cannot be a WHERE Champion and hold a seat on the judging panel.*

J. Williams, OCT/**Mining Matters**/TTSP/May 2014



**CGEN YUKON REGIONAL CHAPTER
ANNUAL UPDATE, 2013-2014**

Contact: Sarah Laxton
Sarah.laxton@gov.yk.ca
Phone: 867-393-71876

Mining Week, Whitehorse (May 9-10, 2014)

Exploration tent-camp at Shipyards Park – open to the public
Hands-on geoscience activities for 200 students
School tours of the Whitehorse Copper Belt

Geoscience Workshop for Yukon Teachers, Whitehorse (Sept. 26, 2013)

One day workshop hosted by the Yukon Geological Survey and Mining Matters
Morning class room session and afternoon field trip

Yukon Geoscience Forum, Whitehorse

Student Tradeshow Tours
Public hands-on geoscience activities at Geoscience public day

Yukon Geological Survey Open House (March 2014)

Displays set up in downtown office to share with the public what we do
Demos and hands-on activities for public
Opportunity for public to engage with geologists

Permafrost Outreach Program, various Yukon communities (Fall 2013 and Spring 2014)

Frost tubes located at schools throughout the territory
Annual visits to meet with classes involved with program
Collaboration with Dr. Yoshikawa, University of Alaska Fairbanks

Public Talks

Various Earth Science topics at Beringia Centre
Tombstone Park – Geology Rocks weekend (August 24-25, 2013)
Interpretive geology hikes at Miles Canyon, Whitehorse (summer 2013)

School & public activities, various Yukon communities

Copper Belt Tours
High school Geology field trips
Class room presentations
Led geology activities for Kluane School's Muskrat Camp students

Yukon College school of Mining students – core logging lab at YGS Core Library
Copper Ridge Place care residents – presentation of Whitehorse Geology
Collaboration with Dept. of Environment for Canada Water Week – classroom
presentations and hands-on activities