

Canadian Geoscience Education Network Annual General Meeting
1:00 p.m. – 5:00 p.m., May 21, 2013
Millennium Library, Buchwald Room
Winnipeg, Manitoba

Present: Charly Bank, Mark Fenton, Kate Grapes Yeo, Barbara Green Parker, Fran Haidl, Beth Halfkenny, Lesley Hymers, Sarah Laxton, Godfrey Nowlan, Eileen Van der Flier-Keller, Christy Vodden, Janice Williams, Jeff Young

Note: The CGEN annual meeting was again abbreviated to a half-day, following the model set at the 2012 meeting in St. John's. This year, unfortunately, it had to be held in advance of the teachers' workshop, so we were unable to do a debriefing. The main focus of the annual meeting was, as a result, the priorities identified at the last meeting and setting new ones for the coming year.

AGENDA ITEMS/SUMMARY OF DISCUSSION

Changes/additions to agenda, review of 2012 AGM action items and approval of minutes (all)

There were no changes to the agenda and the 2012 minutes were approved as written. They are posted on the CGEN website at <http://earthsciencescanada.com/cgen/index.php?page=minutes-of-meetings>, which includes an archive of meeting minutes back to 2000.

All actions arising from the 2012 meeting were completed, with Godfrey Nowlan noting that he still has a supply of promotional postcards for the Careers in Earth Science website should anyone need some.

(Action: All. Promotional postcards, available in French and English, can be ordered from Godfrey at Godfrey.Nowlan@NRCan-RNCan.gc.ca)

Report of outgoing President and introduction of 2013-2015 Executive (Charly Bank)

Charly, in his concluding remarks as CGEN President, said that he remains deeply impressed by the volunteer commitment that keeps CGEN alive, and how many valuable education and outreach initiatives are put on by CGEN members across the country. He applauded the many CGEN achievements over the past two years, notably the website renewal led by Godfrey (<http://earthsciencescanada.com/cgen/>) and the exciting new EarthLinks feature developed by Miriam Vos-Guenter. (<http://earthsciencescanada.com/earthlinks/>).

He thanked his fellow Executive members, and welcomed Eileen Van der Flier-Keller as the new CGEN President. In addition to Eileen, the 2013-2015 CGEN Executive includes Lesley Hymers as Vice-President, Christy Vodden remaining as Secretary-Treasurer, and Charly becoming Past-President.

Introductory comments by new President (Eileen Van der Flier-Keller)

Eileen commented how pleased she was to take over the presidency of CGEN, which she described as a "cool group of people doing amazing things." She thanked Charly, Christy and Godfrey for the great job they had done over the past two years, Laura Clinton and Beth Halfkenny for co-chairing EdGEO so successfully, and Jeff Young for putting together a wonderful education/outreach program for the Winnipeg conference.

Report of the Secretary-Treasurer (Christy Vodden)

See Appendix 1 for the detailed financial report for 2012-2013. Christy reported that as of April 30, 2013, the CGEN bank balance was \$11,411.11 (\$10,761.11 for general CGEN activities and \$650 held for the geoheritage project – these are speaker's fees donated by members of the Ottawa-Gatineau

Geoheritage Project to be used in support of their activities). CGEN was reimbursed for the two Canadian Geological Foundation (CGF) grants for which it had provided bridge funding. The geoheritage project, led by Al Donaldson, is now completed. The careers website project, led by Godfrey Nowlan, is just finishing year two of three.

CGEN received a generous contribution of \$1,000 from the Canada Prize Foundation, which has generously provided this level of support annually for the past seven years. Outgoing funds covered expenses incurred by the Secretariat (office and website), catering for the 2012 St. John's meeting, support for one regional meeting in Saskatoon, and bridge funding for the two CGF grants. Although the financial report shows the CGEN bank balance standing at \$11,411.11, the active balance is actually about \$4,500. The remainder is earmarked for outstanding cheques, commitments and bridge funding of the Year 3 of the CGF grant for the careers website (this will be reimbursed once all invoices are submitted to CGF in 2014).

Christy also noted that the previous year's financial report contained an incorrect total, and tabled the revised 2011-2012 financial report (see Appendix 2). She reported that the CGEN membership continues to hover just under 500, with 493 members (last year there were 490). Additions to the membership were matched almost equally by deletions.

Outreach/education at national geoscience conferences

Winnipeg 2013 (Jeff Young): Jeff thanked CGEN members for all the help and advice they had offered in support of his program. He indicated that participation numbers in the workshop could be as high as 37 teachers, noting that a registration fee of \$60 was being charged to ensure teachers turned up. The handling of these fees had created an issue, and he urged that future workshops institute a policy that all registration fees go straight to the workshop organizers, rather than through the GAC registration system. This would give the organizers the cash they need to book essentials such as catering and buses. Beth Halfkenny and Charly Bank strongly supported this recommendation, indicating that they had both encountered headaches because of this policy when they were organizing the education programs in Ottawa (2011) and Toronto (2009). Beth offered to draft a letter and a best practices statement to be included in the GAC "how to organize the conference" manual (the so-called "red book.") She will send these drafts to previous organizers, who had encountered problems because of this, for comment prior to forwarding it to the GAC via the CGEN President. (*Action: Beth Halfkenny. Once letter and best practices statement are reviewed by past organizers and Jeff Young, she will send them to Eileen Van der Flier-Keller to be sent officially from the CGEN President to the GAC*)

In terms of other funding for the workshop, Jeff had been successful in getting a Canadian Geological Foundation (CGF) grant of \$14,000, saying that this had been a good recommendation from previous organizers. He noted that the timing of the application is critical, in that funding of CGF grants is made once a year in May, so he had had to have his application in for the 2012 funding cycle (the deadline for applications each year is March 31, see: <http://www.canadiangeologicalfoundation.org/>). Given that CGF grants can only be reimbursed once all the invoices have been paid and submitted to CGF, it was fortunate that the University of Manitoba was able to provide bridge funding.

Other events in the Winnipeg education/outreach program are:

- A one-day First Nations Geoscience Forum, sponsored by Vale, designed to bring together Indigenous Elders and earth science professionals to "share perspectives and explore the design of Earth science outreach and teaching programs."

- A free public lecture by James T. Teller, University of Manitoba, “The drowning and draining of Manitoba from Lake Agassiz to today.”

Jeff concluded by saying how valuable the advice had been that he had received from organizers of previous years’ programs, and indicated that he planned to contact the organizers for the 2014 program in Fredericton. (*Action: Jeff Young to contact Dave Lentz to discuss issues and challenges faced in organizing the Winnipeg program and to share his recommendations*). See Appendix 3 for Jeff’s final report on the outreach/education program.

Fredericton 2014 (Dave Lentz): Unfortunately Dave, who is Co-chair of the 2014 conference, was unable to join the meeting as he had planned. He will keep CGEN informed of the program being developed for this meeting next May, and where CGEN members may be able to help out. [Note: the program now includes a special session “Geoheritage: The Earth’s Past, Our Future” convened by John Calder, Steven Hind and Matt Stimson: <http://www.unb.ca/conferences/gacmac2014/program/index.html> and a proposed outreach program including a one-day’s teachers’ workshop and a one-day field trip for teachers to Stonehammer Geopark: <http://www.unb.ca/conferences/gacmac2014/outreach.html>].

CGEN 2013-2015: priority setting (Eileen Van der Flier-Keller/all)

Eileen noted that this was an important annual exercise that enabled a good reality check on what CGEN was doing and what its members would find useful for it to do. Issues identified were:

- ***CGEN support for members, regional groups and adhering societies***
Lesley Hymers commented that it would be such an important addition to CGEN if a viable network of regional groups could be instituted in Canada. As it stands there are regional groups with various levels of activity in some but not all parts of the country, and this has been a discussion point at many past CGEN meetings, with no clear resolution. She suggested that one route to better coverage might be to invite regional groups to submit information to the national CGEN Executive about their activities. All agreed that the benefits would flow both ways in terms of networking and information exchange, but the reality is that regional chapters in many ways are an artificial construct: they need to be tailored to the needs of a region, and work best when there is an actual task that needs to be undertaken in an area. Mark Fenton commented that earth science educator groups in Alberta tend to be organized on a local or citywide scale, reflecting an interest by teachers in their own backyard (local fieldtrips, etc.). Kate Grapes Yeo indicated that Regina and Saskatoon regional CGEN groups meet on a purpose-driven, project-based basis, with an annual meeting held in December.
- ***CGEN and EarthLinks websites***
Godfrey Nowlan, who was the lead on the CGEN website renewal, reported that the new website will go live in June (<http://earthsciencescanada.com/cgen/>) as part of the larger Earth Sciences Canada website, which pulls together important outreach projects including the WHERE Challenge, Explore a Career in Earth Sciences and GeoVistas (<http://earthsciencescanada.com/>). The EarthLinks website will also go live in June, linked from both the main home page for Earth Sciences Canada and from the CGEN home page. EarthLinks provides an array of links to websites offering good classroom resources. It is a major accomplishment for CGEN, pulled together by Miriam Vos-Guenter over the past few years, based on many discussions with CGEN members and potential users. Eileen formally thanked Miriam on behalf of CGEN for this major contribution and Godfrey for the work he had done with the overall management of the website renewal project. In discussing the need for a dedicated webmaster for the CGEN website (previously managed by Christy Vodden and a contractor Jennifer Smith), Miriam’s name was put

forth with the understanding that this would be a paid function given the time commitment required. (*Action: Eileen to approach Miriam*). [Note: Miriam Vos-Guenter has graciously agreed to be the CGEN webmaster]. For future consideration, Janice Williams suggested it might be useful to add a SlideShare component to EarthLinks, to provide video and other visual references for teachers in a convenient uploadable program. We also discussed how to best advertise the websites (CGEN, Careers in Earth Sciences, EarthLinks) to teachers and other educators. An obvious option is through EdGEO's website and newsletter, but getting the word out in any other way is going to be important for increasing exposure and awareness. (*Action: All. Spread the word to your teacher contacts*)

- ***Increasing participation in CGEN AGM (conference call and other options)***

Charly Bank described the usefulness of the conference calls coordinated by CGEN and its parent body the Canadian Federation of Earth Sciences (CFES) in pulling together people responsible for earth science outreach in national professional associations that are members of CFES. The calls, usually scheduled quarterly over the past few years, had been a good way to exchange information and network. They had not, however, been particularly successful in engaging these professionals from member societies of CFES in CGEN. The calls, however, have not occurred regularly since the loss of a CFES Secretariat following the departure from CFES of Elisabeth Kusters. All agreed that the calls should be reinstated. (*Action: Eileen to look at scheduling these conference calls*)

Eileen Van der Flier-Keller also noted that the 2007 CGEN meeting in Yellowknife had been a watershed for CGEN, in that it pulled together a large and diverse range of people from all areas of the earth science and education communities. She suggested that we need to encourage this mix of people at all future meetings or make connections with them through this revitalized conference call program. She also recommended that we consider ways of fundraising so that we could bring more teachers to our meetings. She welcomed suggestions from the membership on ways to accomplish both these goals for increasing participation in the CGEN AGM (*Action: All*).

- ***Secretary Treasurer position***

Christy Vodden has been the Secretary-Treasurer for over 15 years and tabled her intention to step down at the end of the 2013-2015 term. CGEN noted that heartfelt thanks are due to Christy for doing such an amazing job of keeping all of our members informed and in touch over this time. (*Action: CGEN Executive to headhunt new Secretary Treasurer for May 2015 meeting*)

CGEN funding applications to Canadian Geological Foundation 2014-2015

Eileen introduced the idea that CGEN should put in a large, multi-year funding request to the Canadian Geological Foundation (CGF) to support a range of core activities including website management and promotion, increased teachers' participation in CGEN meetings, mentorship activities, etc. Problems linked to CGF funding are well known to anyone who has received their support. Their rules require that money be reimbursed to the grant applicant only after invoices showing it has all been spent have been submitted to CGF. Unless these rules are changed, CGEN would require bridge funding from some other source to cover its expenditures under any multi-year funding. Christy noted that CGEN's small bank account has, in the past, covered CGF grants for the careers website maintenance and promotion and for geoheritage. These tied up CGEN funds until such time as all expenditures were made and invoices submitted. A larger grant would be impossible to cover. She suggested that a discussion with CGF about changing their reimbursement policy be a priority for CGEN. (*Action: Eileen to discuss possibility with Jane Wynne, CGF Secretary and Carolyn Relf, CGF President*)

Reports from CGEN members, affiliates and core programs

Alberta Geological Survey (AGS) outreach (Mark Fenton): Mark reported the encouraging news that the outreach program at AGS is returning to levels not seen since Dixon Edwards' retirement, thanks to renewed support and interest from management – Mark has been asked to put in an outreach proposal. He has also built good connections with the Edmonton Science Outreach Society. This has led to a fieldtrip with the Junior Naturalists and an invitation to provide earth science content to a Grade 7 teachers' symposium in the fall. Other good news, the publication "Pebbles of Edmonton" will go to press soon.

Canadian Geological Foundation (Jane Wynne, by email): Jane reported "The CGF awarded \$172,089 to 14 projects in 2012. We have received 23 applications for a total of \$196,000 to be awarded at the Grants Selection Committee meeting May 25, 2013. Projects must meet one of these criteria:

- Promote public interest in the value of geological sciences to society.
- Aim to provide training to high school teachers in the field of earth sciences.
- Further the application of geological sciences to the development of natural resources through national seminars and conferences.
- Provide career education through the preparation of booklets on geological sciences.
- Support the publication of special scientific papers involving national cooperation.
- Result in the publication of general geology textbooks, displays, videos and films emphasizing Canada and involving national co-operation.
- Involve geological societies in co-operative projects of national, long-term significance.

One wrinkle in the process is that successful applicants only receive the grant money once the project is complete - so they need to either self-fund or have the backing (a loan) from some organization to complete the project. [See discussion above under CGEN funding from CGF]. Visit the CGF website to see what projects have received funding in the past (<http://www.canadiangeologicalfoundation.org/>). Applications must be submitted by March 31 each year."

EdGEO and Ottawa outreach (Beth Halfkenny): EdGEO is co-chaired by Laura Clinton and Beth; see Appendix 4 for the EdGEO report for 2012-2013. Beth commented that recognition of the program is growing, with more enquiries coming from Quebec and new types of workshop proposals being submitted. Funding remains a challenge. The CGF grant runs out next year, and other possibilities are being researched. The new concept of having co-chairs run EdGEO has proved very successful, and Beth plans to maintain that model when a new chair is found to replace Laura, whose term is ending. [Note: Amanda McCallum agreed to become the next EdGEO Co-Chair].

Beth also runs an active program as the outreach coordinator for Carleton University's Earth Sciences Department. One of her major initiatives is Explore Geoheritage Day, held each October, during National Science and Technology Week. The 2012 event had nine sites in the Ottawa-Gatineau area staffed by geologists and a good turnout from the public. Another major initiative is an annual teachers' workshop held each summer, which is always well subscribed. A new project was to offer an open house for home schoolers. This had a very enthusiastic response, indicating a clear need from this education realm. Beth is also building good new partnerships with groups such as Let's Talk Science.

Fogo Island Geologist Residency (Paul Dean, by email): Paul reported that "The Geologist in Residence Program on Fogo Island – Geology At The Edge will be up and running this summer and fall. The first three Geologists In Residence are Andy Kerr, Jane Wynne and Sheridan Thompson. We are still seeking

applicants for 2014. Contact us at: <https://www.facebook.com/GeologyAtTheEdge>” [Note: Jane Wynne was unable to take up her residency in 2013, but plans to do so in 2014].

Four Billion Years and Counting (Rob Fensome, by email, and Godfrey Nowlan): This long-awaited book is nearing publication. Rob reports that it is in the design stage. He expects it to be available for pre-order in the fall, and out in early 2014. For more information about this project, see <http://earthsciencescanada.com/4by/>. Godfrey reported that seeking permissions to use photos from the book on the website, which will include extensive resources linked to the book, is well underway, with about 90% of the photos having received permission from their owners for this use.

Geoparks (Godfrey Nowlan): Godfrey announced that he would continue working with this project following his retirement from the Geological Survey of Canada, with funding support from Natural Resources Canada. He reported that interest in North America has really picked up, with nine Canadian communities putting together proposals for Geoparks. A site visit is planned for Tumbler Ridge, B.C. in July. For those not familiar with this relatively new (for Canada) initiative see <http://earthsciencescanada.com/cfes/index.php?page=geoparks> for general information and <http://www.stonehammergeopark.com/main.html> to learn about Canada’s (and North America’s!) first Geopark, Stonehammer, in New Brunswick. Eileen noted that this was an especially important initiative, in that it linked earth science outreach to tourism.

Geoscience Canada outreach series (Fran Haidl): *Geoscience Canada*, the quarterly magazine of the Geological Association of Canada, has been running an outreach series for many years (Fran is its current editor). She noted the latest articles by CGEN members: one by Beth Halfkenny on her experience providing a teachers workshop at Attawapiskat (Volume 39, Number 2, 2012); the other by Eileen Van der Flier-Keller on raising awareness of earth sciences through the B.C. Year of Science (Volume 38, Number 4, 2011). Two others are planned for upcoming volumes: one by Lesley Hymers on the Ontario teachers mining tour; the other by Bob Turner on the Geological Survey of Canada Geoscape outreach initiative. Fran invited other CGEN members to consider putting in an article. (*Action: All. Contact Fran at Fran.Haidl@gov.sk.ca or hfhaidl@sasktel.net*). She also noted that while some outreach articles are available publicly, unfortunately, most were available only to *Geoscience Canada* subscribers. She suggested that a formal request from CGEN to GAC for public access to the entire outreach series would probably be well received. (*Action: Eileen and Fran to discuss further as to wording and timing*)

Mining Matters (Janice Williams, Barbara Green Parker): Janice, who manages teaching training and school programs for Mining Matters, highlighted some key projects over the past year, including:

- A continued partnership with Stonehammer Geopark (Janice is giving a Mining Matters program in August and providing training to Stonehammer interpreters)
- Participation in Mining for Society (M4S) held in Toronto in early May as part of the 2013 Canadian Institute of Mining and Metallurgy convention – 3,000 educators, students and members of the public attended M4S

For the future, Mining Matters is putting on a 2 ½ day workshop “Exploring Arundel: Where geology, ecology and technology meet” in Quebec. This is a good example of “wedging” earth science into other curriculum subjects, as was identified as a priority at the Yellowknife CGEN meeting. She also thanked CGEN members for their input on the new “Power to the People” poster that Mining Matters will be releasing in time for the next school year (PDF available at: <http://www.pdac.ca/mining-matters/resources/education/mining-matters-publications/mining-matters-posters>). (*Action: All. Anyone wishing a print supply of the poster can contact Janice at jwilliams@miningmatters.ca*)

Barbara, who manages the Aboriginal education and outreach program at Mining Matters, reported on the success of a series of Mining 101 workshops put on in partnership with the Ontario government in Aboriginal communities in fall 2012. The Mining Rocks workshop program also continues to grow, with 20 scheduled for the summer. For more information, check <http://www.pdac.ca/mining-matters/aboriginal-programs>.

Newfoundland and Labrador outreach (Amanda McCallum via email): Amanda reports that “In the 2011-2014 Strategic Plan, the Newfoundland and Labrador Department of Natural Resources committed to advancing outreach practices to support industry growth. Public knowledge and perceptions of the mining and energy sectors are important factors as the province works to increase development. The department is working towards developing a comprehensive Resource Education and Public Outreach Strategy to focus on greater outreach to the general public, communities, and specific stakeholder groups to share information about current and future developments and their anticipated impacts on the province's economy, environment and people.”

Ontario Mining Association (OMA) (Lesley Hymers): Lesley reported on the success of the third mining tour in 2012 in Sudbury and North Bay, which introduced 32 Ontario teachers to all aspects of the mining cycle. The 2013 program will be expanded to offer a second tour in Timmins. She noted the value of OMA's growing partnership with Let's Talk Science and the success of the contest “So you think you know mining” despite the Ontario teachers' strike action during the submission period (the same number were received as in past years) and how the contest had received its first Aboriginal entries. Detailed OMA report attached as Appendix 5.

Saskatchewan outreach/education (Kate Grapes Yeo): Kate reported that the Saskatchewan CGEN regional chapter is still going strong. It has met annually for many years, and this year's was a joint Regina/Saskatoon meeting. Of particular interest, there is a new high school course on earth science in the Saskatchewan Grade 12 curriculum, currently being piloted, and the regional chapter was really involved in the development, providing core information and activities. Kate also noted the Association of Professional Engineers and Geoscientists of Saskatchewan has posted videos with engineers and geoscientists talking about what their career is like, the challenges and the rewards (<http://www.apegs.sk.ca/Default.aspx?DN=472>). See Appendix 6 for report.

University of Toronto outreach (Charly Bank): Charly reported that the U of T Earth Science Department continues to engage students and the public, with four science talks put on by staff at public libraries. They also held their first EdGEO workshop last summer. He noted that their educational outreach efforts had been curtailed by the Ontario teacher's strike action during the past year.

University of Victoria outreach (Eileen Van der Flier-Keller): Eileen reported on a longitudinal study of early participants of the Education Lab on earth science provided to pre-service teachers since 2005. The good news was that those who took it were still interested in the earth sciences, and if they had teaching positions were using the resources and activities. The bad news was that many of them did not go on to complete their degree and others were not teaching science. She suggested that we might need to rethink connections with the pre-service level, in terms of long-term value for money and time expended on the education labs. The university continues to have an active program of teacher ProD workshops and classroom visits in which several earth science undergraduate students participate.

Yukon Geological Survey outreach (Sarah Laxton): Sarah reported a successful Geoscience Day (part of the Yukon Geoscience Forum) with public events and school visits. Connections to seniors' groups were added this year, expanding the reach of the event. Mining Week activities built on the success of the previous year, and there was a more than doubling of students involved (200 versus 90 the previous year).

For the future, a field trip to Watson Lake for Grade 12 students is planned and a Yukon highway geology map is being considered. Full report attached as Appendix 7.

Timing for next meeting

The next CGEN annual general meeting will be held during the geoscience conference Fredericton 2014 (May 21-23, 2014). The date will be announced shortly.

Christy Vodden
Secretary-Treasurer, Canadian Geoscience Education Network

October 30, 2013

**Canadian Geoscience Education Network
2012-2013 FINANCIAL REPORT**

Balance at last report (as of April 30, 2012) \$6,287.67 (1)

Incoming funds:

Reimbursement CGF, geoheritage grant, June 2012	\$4,520.00
Reimbursement CGF, Careers website, year 1 of 3, June 2012	\$6,750.00
Canada Prize in support of CGEN activities, February 2013	\$1,000.00
*Transfer, remainder geoheritage grant to CGEN general account	\$1.89
Interest (May 2012–April 2013)	<u>\$0</u>
Sub-total incoming:	+\$12,271.89 (2)
Total (1 and 2):	+\$18,559.56

Outgoing payments:

1. CGEN core activities/administration

Vodden, website, office expenses, catering AGM	\$609.28
Fleiva, CGEN logo design	\$772.80
Smith, website updates	\$75.00
Haidl, regional meeting support (Saskatoon)	<u>\$127.35</u>
Sub-total:	-\$1,584.43 (3)

2. Payments reimbursed by Canadian Geological Foundation

(a) Careers website: redesign & promotion: grant = \$7,200 (year 2)

Market Zone, advertisement, Cdn. Counsellor, fall 2012 issue	\$1,017.00
Sabean, Terra Factum Consulting, website maintenance	\$1,020.00
Market Zone, advertisement, Cdn. Counsellor, spring 2013 issue	<u>\$805.13</u>
Sub-total:	-\$2,842.13 (4)

(b) Geoheritage: website & promotion: grant = \$4,520 (remainder = \$2,721.89)

Mississippi River Power Corp., geoheritage park signage	\$2,720.00
*Remainder transferred to CGEN geoheritage account	<u>\$1.89</u>
Sub-total:	-\$2,721.89 (5)
Total outgoing (3,4 and 5):	-\$7,148.45

BALANCE as of April 30, 2013 = \$11,411.11

- Balance includes \$650 held for geoheritage project, with an outstanding cheque of \$140.91 against that amount = \$509.09
- CGEN balance has an outstanding cheque of \$91.88 and two commitments: CGF careers website grant to Market Zone for three more ads in 2013 Cdn. Counsellor \$805.13 each totalling \$2,415.39 and Secretary-Treasurer expenses ~ \$750 = ~\$3175) = ~\$7,500 (~ \$3,000 has to be maintained as bridging funds for the 2012-2013 CGF grant for the Careers website project).
- **Active balance = ~\$4,500**

Christy Vodden
Secretary-Treasurer
May 18, 2013

**Canadian Geoscience Education Network
2011-2012 FINANCIAL REPORT**

Revised, May 18, 2013, incorrect total (marked **), all other figures were correct

Balance at last report (as of April 30, 2011)	\$30,735.47
<u>Incoming funds:</u>	
CFES contribution in support of CGEN activities, Dec. 2011	\$3,500.00
Canada Prize in support of CGEN activities, February 2012	\$1,000.00
*Transfer, remainder of GSC grant to CGEN general account	\$117.77
Interest (May/11 – April/12)	<u>\$0</u>
Total incoming:	+\$4,617.77
Sub-total:	+\$35,353.24
<u>Outgoing payments:</u>	
<u>1. CGEN core activities/administration</u>	
Earth Sciences, Carleton Univ. for 2011 teachers' workshop	\$500.00
Bogdon, replacement cheque for 2010 workshop support	\$50.00
Vodden, office, catering & administration charges	\$478.43
Smith, website update, Oct. 2011	\$100.00
Haidl, Sask. regional meeting	\$186.26
Smith, website update, March 2012	\$100.00
Wynne, BC regional meeting	\$167.64
Service charge, TD	<u>\$1.00</u>
Sub-total:	-\$1,583.33
<u>2. Careers videos (from GSC grant of \$20,000 received 2010-2011)</u>	
Career Crate, video production deposit	\$9,345.00
Career Crate, completion of videos	\$9,529.23
Sabean, coordination, editing, implementation	\$1,008.00
* Remainder transferred to CGEN general accounts	<u>\$117.77</u>
Sub-total:	-\$20,000.00
<u>3. Payments reimbursed by Canadian Geological Foundation</u>	
<u>(a) Careers website: redesign & promotion: grant = \$6,750</u>	
Market Zone, advertisement, Cdn. Counsellor, fall 2011 issue	\$866.25
Fleiva, website design & updates	\$448.88
Sabean, website maintenance	\$670.00
Market Zone, advertisement, Cdn. Counsellor, spring 2011 issue	\$932.25
Fleiva, redesign/printing 30,000 postcards	<u>\$2,766.75</u>
Sub-total:	-\$5,684.13
<u>(b). Geoheritage: website & promotion: grant = \$4,520</u>	
Aylsworth, website registration and annual fee 2011-2012	\$174.81
Tunley, website design	\$813.60
Aylsworth, website annual fee 2012-2013	\$30.00
Elm Printing, publicity bookmark for new website	<u>\$779.70</u>
Sub-total:	-\$1,798.11
Total outgoing:	-\$29,065.57**
<u>BALANCE as of April 30, 2012</u>	<u>= \$6,287.67</u>

(Note: balance includes \$650 held in CGEN account for geoheritage project)

Reimbursement requested from Cdn. Geological Foundation (\$11,270)

Christy Vodden

Secretary-Treasurer

May 17, 2012 (revised May 18, 2013)

Outreach Program Report **Jeff Young (Department of Geological Sciences, U. Manitoba)**

A geoscience education and outreach component has been part of the program for the GAC-MAC joint annual meeting for at least the past seven years. The program at Winnipeg 2013 consisted of:

- The Geoscience in Our Lives Public Lecture entitled The drowning and draining of Manitoba: from Lake Agassiz to today by Dr. James T. Teller, Professor Emeritus at the University of Manitoba.

- A Special Session entitled First Nations Geoscience that brought together First Nations elders with professional geoscientists and educators.

- A two day EdGEO Teacher Workshop and Field Trip.

Outreach Program Committee

Jeff Young (University of Manitoba) chaired the outreach program. Other committee members included Bill Mandziuk (University of Manitoba), John Murray (Manitoba Innovation, Energy and Mines) and Linda Murphy (Manitoba Geological Survey). Matt Demski (M.Sc. student, University of Manitoba) and Sam Lewis (B.Sc. student, University of Manitoba) provided additional help prior to, and during, the meeting.

Geoscience in Our Lives Public Lecture

Dr. James T. Teller, Professor Emeritus at the University of Manitoba, delivered the Geoscience in Our Lives Public Lecture. The lecture was held at 7:00 p.m. on Wednesday, May 22nd in the Presentation Theatre at the Winnipeg Convention Centre. About 75 people attended the lecture and ranged from conference registrants to the general public. The Clayton H. Riddell Faculty of Environment, Earth and Resources at the University of Manitoba sponsored the lecture.

Special Session: First Nations Geoscience

A special session that was part of the technical program entitled First Nations Geoscience was held on Thursday May 23rd in a second floor meeting room. The session was attended by up to 50 people representing First Nations, professional geoscientists and educators. The objectives of the session was to share perspectives and explore the design of Earth science outreach and teaching programs and to better understand how Earth science education is currently delivered.

The session started with presentations from three elders and a smudge ceremony. The elders delivered their understanding of First Nations science applied to the Earth. Two aboriginal speakers following the elders spoke on First Nations history colonial to recent times and the merging with western science. The final two speakers summarized two recent projects used in the minerals industry, which looked to develop necessary skills in First Nations communities. One-hour breakout learning circles were scheduled for both the morning and afternoon sessions, but were cancelled due to a lack of time. The Canadian Geoscience Education Network (CGEN) sponsored the special session and Vale committed to financial sponsorship of the special session about two weeks before the conference.

Teacher Workshop and Field Trip

The EdGEO Teacher Workshop was held on Friday, May 24th, the last day of the GAC-MAC joint annual meeting. The field trip was held on Saturday, May 25th. These days were selected after consultation with Manitoba Education and Literacy. Manitoba Education and Literacy distributed two advertising flyers promoting the workshop and conference activities to 800 recipients (schools, consultants, etc) and sent out additional email targeting science consultants at the school division level. Workshop registration was \$60.

The Teacher Workshop was held in the Millennium Room on the second floor of the Winnipeg Convention Centre. There were 38 teachers in attendance. About 60% were grade four teachers and about 40% were grade seven teachers. In the morning all the teachers attended a single session focusing on rocks, minerals, Earth structure and

the geological history of Manitoba. In the afternoon two different programs were delivered to reflect the differences in the science curriculum between the two grade levels. A final presentation of the day was given to both groups that connected Earth sciences to society and resources. The workshop facilitators included:

- Charly Bank (Senior Lecturer, University of Toronto)
- John Danko (Teacher, Argyle Alternative School)
- Beth Halfkenny (Curator and Outreach Coordinator, Carleton University)
- Lesley Hymers (Environment and Education Specialist, Ontario Mining Association)
- Linda Murphy (Geologist, Manitoba Geological Survey)
- John Murray (Director, Industrial Research Consortium, Manitoba Innovation, Energy and Mines)
- Godfrey Nowlan (Geologist and Paleontologist, Geological Survey of Canada)
- Erica Williams (Teacher, Riverside Secondary School, Port Coquitlam, B.C.)
- Janice Williams (Educator, PDAC Mining Matters)

Others who contributed to the success of the workshop were Mark Fenton (Senior Scientist, Alberta Geological Survey), Kate Grapes Yeo (Geoscience Education Consultant, Saskatchewan), Sam Lewis (Student, University of Manitoba) and Matt Demski (Student, University of Manitoba).

At the end of the day teachers received a teacher resource kit containing geological maps, posters, books, pamphlets, minerals, rocks and glacial sediment. Many of the resources were linked to the Manitoba science curriculum and included lesson plans and activity ideas. Free resources were acquired from the Manitoba Geological Survey, Natural Resources Canada, the minerals industry and the Department of Geological Sciences at the University of Manitoba. Additional resources were purchased from various vendors. The Canadian Geoscience Education Network (CGEN) sponsored the workshop and funding for the workshop and resource kit was supplied by CGF (Canadian Geological Foundation).

The **EdGEO Teacher Field Trip** was held on Saturday, May 25th. The field trip toured the Cretaceous rocks of the Manitoba escarpment and their relationship with the overlying Pleistocene glacial deposits. Bill Mandziuk (University of Manitoba) led the field trip. A bus was used for transportation and lunch and admission to the Morden Museum were supplied. There were 10 participants on the trip, but only 3 were teachers. EdGEO supplied funding for the fieldtrip.

General Comments and Recommendations

The geoscience education and outreach component of the joint annual meeting of GAC-MAC is a conference within a conference. It services the general public, the K-12 teaching community and geoscience educators or professionals interested in geoscience education or outreach projects.

(1) The outreach program chair is a wealth of information. Winnipeg 2013 received invaluable support from Amanda McCallum (Outreach Chair, St. John's 2012) and Beth Halfkenny (Outreach Chair, Ottawa 2011). It is suggested that the outreach program chair contact the previous chair more than one year before the conference. The outreach chair for Winnipeg 2013 was put on the email distribution list for St. John's 2012 in December 2011, but even earlier would have been more beneficial.

(2) Registration is a complex problem for the outreach program. Registration for GAC-MAC conference delegates is done online through the national GAC office starting in March. The teachers and general public were also required to use the same registration process. The national GAC office was unprepared for web registration for the outreach program. Editing of the web registration was completed in mid-March. Although staff at the national office did a great job of responding to issues throughout the registration process it is recommended that registration for outreach program activities be done locally and coordinated by the outreach program chair because:

- (a) The registration process used by the GAC is not familiar to the teachers or general public. The outreach chair was contacted numerous times on how to register. A step-by step instruction sheet was created and sent to teachers to ease registration problems.
- (b) Registration deadlines used by the GAC-MAC conference are not compatible with the deadlines needed for the teacher workshop and field trip. As an example, in order to create the teacher resource kits an accurate number of participants are needed to ensure enough materials are collected. Registration for the teachers needs to start in January and be completed by March.

- (c) Planning for catering and resources is difficult without knowing relatively accurate numbers. The number and names of registered teachers for the workshop, field trip and special session on the web database and in updated registration spreadsheets did not match. At the beginning of the conference the registration numbers for the teacher workshop ranged from 23 to 37.
- (d) The budgetary process for the outreach program is complex. The outreach program at Winnipeg 2013 used conference rooms, some audiovisual, catering and information packages supplied by the local organizing committee (LOC). The outreach committee did its own fund raising, publicity (except for the public lecturer), development of the technical program and field trip. The outreach program was also used to lever conference funding by the LOC and all parts of the outreach program were financially sponsored.

(2) The **Geoscience in Our Lives Public Lecturer** was selected by the outreach chair in cooperation with the LOC. A formal invitation was sent to the lecturer in December 2012. Advertising for the lecture was done in cooperation with the Publicity Committee a couple of weeks prior to the conference. Local organizations thought to be interested were contacted and information about the talk was widely disseminated.

(3) **First Nations Geoscience** was a special session organized to bring together indigenous Elder knowledge holders, professional Earth science educators and teachers to share their perspectives and explore the design of Earth science outreach and teaching programs. An important component of the session was breakout-learning circles. The learning circles were cancelled because all speakers exceeded their time limit and two significant technical problems that pushed back the program about 45 minutes.

Financial sponsorship from Vale is gratefully acknowledged. Unfortunately, sponsorship just prior to the conference means that little can be done with the money to ensure success of the program. At the same time there is an onus on the conference to represent the sponsorship to the participants properly. Sponsorship deadlines for specific parts of the program need to be completed at least one month prior to the conference.

(4) The **EdGEO Teacher Workshop** is a highlight of the outreach program and a significant amount of human resources go into the workshop.

- (a) CGEN members were exceptionally supportive and highly willing participants who readily volunteered to facilitate the workshop. Charly Bank, CGEN president 2013 helped coordinate conference calls and volunteers. CGEN members should be contacted early (during the previous GAC-MAC meeting or no later than September of the previous year) through the CGEN president. Although some members were not able to fully commit until the last minute a program schedule can be created and used for advertising.
- (b) CGF supplied funding for the workshop and the teacher resource kit in particular. Note that the funding proposal must be submitted by the end of March of the year previous (i.e., March 31, 2012 for Winnipeg 2013). Winnipeg 2013 received \$14,900.00 from the CGF for the workshop.
- (c) Development of the resource kit is a significant job that should be coordinated by a committee member in cooperation with the outreach program chair. We received free contributions from the Manitoba Geological Survey, Natural Resources Canada and the minerals industry. Resources necessary to complete the kit were purchased from various vendors or collected by members of the outreach program committee.
- (d) CGEN facilitators use the teacher resource kit to deliver Teacher Workshop activities.
- (e) Putting the resource kit together took a significant amount of time. The bulk of the kit should be completed at least two months prior to the workshop and facilitators notified of its content. Earlier notification will allow facilitators to streamline their presentations.
- (f) A review of teacher comments varied from good to excellent, with the most common problem identified as time management. Teachers identified both the need for a better time balance between facilitators and sticking to break schedules. Due to the interactive nature of the activities at the workshop presentations inevitably go overtime. Facilitators need to be kept on time, particularly for breaks. It is recommended that the program should have flexibility built into it to allow for time management problems.

(5) The **EdGEO Teacher Field Trip** was advertised along with the other activities of the outreach program. Twelve teachers registered for the field trip but only three attended. Discussions with Manitoba Education and Literacy suggested that turnout might be much lower for weekend activities. It is recommended that (1) all teacher activities be done during the week; and (2) advertising for the field trip should be done separately and more

aggressively.

(6) Each part of the outreach program should have its own subcommittee. Considering the number of activities including the public lecturer, two days of sessions of which half of one day there were concurrent sessions, and a field trip, the workload needs to be more widely distributed. The outreach program is a conference in itself

EdGEO Report to CGEN – May 25, 2013**B. McLarty Halfkenny and L. Clinton**

This report provides an update of EdGEO operations during the last fiscal year (April 1, 2012 to March 31, 2013).

Workshops

Nine EdGEO workshops were delivered during the last fiscal year. There were two workshops in each of British Columbia, Ontario and Québec, and one in each of Alberta, Nova Scotia, and the Yukon. Total attendance was 206.

Grant Recipient	Attendance	Grant
Calgary Science Network	13	1,972.40
Carleton University	20	1,958.42
Canadian Ecology Centre	30	1,500.00
Nova Scotia EdGEO Committee (Atlantic Geoscience Society)	30	1,025.00
Québec Mines	38	525.00
Yukon Geological Survey	25	1,188.95
University of Victoria with the Mitchell Odyssey Foundation	25	975.00
University of Victoria	15	1,086.79
LEARN Québec	10	500.00
Total	206	\$10,731.56

Finances

Revenue of \$17,862.17 was secured from a \$16,000 grant awarded by the Canadian Geological Foundation, a \$1,500 grant awarded by Canadian Society of Exploration Geophysicists Foundation, and workshop refunds.

Expenses amounted \$12,218.50, of which \$10,731.56 is attributed to workshop support. The remainder of the expenses is for supplies, workshop preparation, bank fees, accounting support, Web site, postage and teleconferences.

We had money in the bank (\$11,553.91) when the fiscal year began. As of March 31, 2013 total assets for EdGEO were \$17,197.58. To date, we have approved commitments of \$7,410 for 2013/2014.

A multi-year grant from the Canadian Geological Foundation (\$48,000 over three years) was awarded to EdGEO in May 2011. Request for payment of year two will occur over the summer months.

Leadership**EdGEO Executive Committee**

Beth McLarty Halfkenny
 Laura Clinton
 Sheila-Dale Johnston
 Toon Pronk
 Jane Wynne
 Jennifer Bates

EdGEO Regional Committee

Charly Bank
 Laura Clinton
 Beth Halfkenny
 Stella Heenan
 Lesley Hymers
 Amy Nishio
 Claire Toner

Contact Information

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**Ontario Mining Association Education and Outreach Committee Activities Report
Canadian Geoscience Education and Outreach Meeting
May 2013-Winnipeg Manitoba**

1. Teachers' Mining Tour (August 6-10, 2012)

- Third annual professional development program for Ontario Teachers
 - Provides exposure to all phases of the mining cycle, mining industry professionals, Earth science and mineral education professionals, Earth science and mineral industry themed presentations, educational resource workshops and field trips.

- 2012 Program included
 - Tour of **Xstrata Nickel's Nickel Rim South Mine**
 - A presentation at the Vale Copper Cliff office, followed by a site visit to the **Vale Nickel Refinery**
 - **Sudbury Reclamation Tour** with Dr. Peter Beckett and Dr. Graeme Spiers of Laurentian University
 - Site visit to **Atlas Copco**, a diamond drill manufacturing facility
 - Site visit to a sand and gravel pit, accompanied by a prospecting activity and planning exercise
 - **Mining Matters** classroom resource workshops
 - Geological canoe trip in the Mattawa River
 - Presentations and discussions about mineral resource development cycle careers
 - **32** people participated in the Tour, including teachers, representatives from the Ministry of Education and the Toronto District School Board and from the Government of Nunavut
 - TDSB community of Rexdale currently considering adding Specialist High Skills Major in Mining

- Tour evaluations indicate that the program was again well received by teachers and sponsors
 - 2012 follow up surveys forwarded onto teachers and awaiting results

- **2013** program will include:
 - The first Tour will be similar to previous tours (located in Sudbury and North Bay, July 29th - Friday August 2nd)
 - A new second tour will include elements of previous tours but Goldcorp will host the mine site visit in Timmins (August 19th-Friday August 23rd)

2. Let's Talk Science

- Partnership Proposal has been drafted and will be vetted by the Board of Directors in September
- Opportunities include links in web sites, sector participation in the All Science Challenge, contribution of mining articles and career profiles to the CurioCity website, use of the teachers' portal to cultivate Teachers Mining Tour network.

3. **So You Think You Know Mining Video Contest**

- Contest encourages Ontario High School students to create a 2-3 minute video or 30 second commercial that describes the benefits of mining
- 2013 marks the 5th annual contest-\$36,500 prize purse available to be won
- 139 videos received
 - Same number of entries as last year-notable given the current climate in Education
 - Entries received from new schools
 - Judging is complete
 - 14 awards will be presented to winners- 12 juried prizes, plus People’s Choice and Early Bird Awards
 - Winning videos created by students from town and cities all over the
 - SYTYKM Awards Gala will be held at the Royal Ontario Museum in June
 - Winners will receive awards and cheques
 - The theme of this year’s gala is “Music” and will include a “live performance of an original piece” created by a previous double winner.
 - Guests will have access to the Tech Suite of Galleries and Mining Hall of Fame exhibit
- **Workshops**
 - February 20th
 - One-day video production workshop held at Cambrian College in Sudbury
 - Twenty students and their teacher Steven Facchini, from the Special High Skills Major in Information and Communications Technology at Bishop Alexander Carter Catholic Secondary School, participated in the workshop.
 - Students were provided with an opportunity to learn the basics of video production, to use Cambrian’s modern facilities and film equipment and to benefit from the experience of college staff.
 - Topics covered in various segments of the course included writing, planning, design and shooting and video editing along with the use of equipment.
 - The workshop was facilitated by broadcaster Dan Maslakewycz of CTV and Cambrian College.
 - As part of the workshop, SYTYKM Judge and Cambrian College Professor Jessica Grillanda delivered a short presentation on the contest and showed a winning video

4. **Mining Movie Making Youth Camp**

- In spring of 2012, OMA was approached by member company Noront Resources, a junior mining company with interests in the Ring of Fire region, requesting that we partner with them and others to deliver video production workshops in Ring of Fire Communities
- Contributed the curriculum for a 4 hour, Earth science and Mineral Resource Development Cycle workshop
- Delivered as part of the content for three, three day ***Mining Movie Making Youth Camps*** (delivered in partnership with Noront, Engage Learning Systems, DAREearts and the Ontario Mining Association
 - Three day program consists of earth science and mining education, performance arts education, and video production
 - Delivered in Webequie First Nation, Marten Falls First Nation, Long Lake # 58 First Nation
- 2013 will see an expansion of workshop program, to include a total of six workshops
 - Webequie First Nation, Marten Falls First Nation, Long Lake # 58 First Nation, and potentially new community Attawapiskat will be delivered in a three day format

- Thunder Bay and Red Lake workshops will be delivered in partnership with Teachers' Mining Tour teacher partners, and likely in a one day format like that of those delivered at Cambrian College

5. Special Education Event-PDAC Convention

- Participated in the PDAC Mining Matters Teachers' Events at the PDAC Convention

6. CIM Mining for Society

- The OMA participated in the recent M4S Show, May 2-4
- Hosted a booth in the Careers and Education pavilion, highlighting industry career options
- M4S was held in the Queen Elizabeth Building on the Canadian National Exhibition Grounds
- More than 3000 students and members of the public participated in the event, themed around the stages of the mining cycle and careers and education

7. CIM Conference

- Participated in the "Ring of Fire Showcase" on May 7th
- Participated in a panel discussion, focused on the role of partnerships to the project
- Delivered a presentation on the "Mining Movie Making Youth Camp Partnership"

8. TDSB Specialist High Skills Major

- Not much development lately, despite attempts to schedule a meetings
- Meetings will reinitiate early in the 2013-2014 academic year

9. Goodman School of Mines (Laurentian University)

- Met with Executive Director, Bruce Jago to discuss the new School and the OMA Education and Outreach Program, including:
 - Perceived priorities of OMA for a school of mines
 - Career and job resources for students that could be posted on GSM website
 - Educational tools/resources
- Shared the complete list of programs and audiences, and OMA and partner resources.

Saskatchewan Geological Society Report

Geoscape Southern Saskatchewan

We continue to receive requests for the *Geoscape Southern Saskatchewan* poster, and for Word versions of our lesson plans and additional Earth Science information via our Geoscape Saskatchewan website email address.

Spring School and Public Lecture

In 2012 the spring school/public lecture, was changed to just being a school lecture. The presentation this year was entitled “Potash: Science Close to Home, Potash Mining in Saskatchewan”, by Murray Schultz of the Mosaic Company. This year we continued to work closely with the science consultants from the various school boards and had fairly good attendance. The first talk was held the morning of Wednesday May 23rd, at Miller Comprehensive High School, and was attended by about 240 students from Regina Catholic and Prairie Valley school divisions. At lunch Mr. Schultz met with a group of high school science students from Miller High School to discuss careers in science. This was followed by an afternoon lecture at Martin Collegiate, which was attended by about 110 students from Regina Public School Division. Students at both lectures had the opportunity to look at ore samples, processed products and samples in various stages of dissolution.

Open House Public Lecture

Once again the SGS organized a public lecture in association with the Geological Survey Open House in Saskatoon. This year we were very pleased to have Greg Johnson, who presented a talk entitled “I’m just a Tornado Hunter”. This talk was co-sponsored with the Saskatchewan Mining Association (SMA) and the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS).

University Student Support/Events

The SGS provided a grant of \$100 per student for seven students to attend the Prospectors and Developers Association of Canada (PDAC) Convention in Toronto from March 3-7th. The students gave a presentation on March 30th to illustrate what they had learnt! This presentation hopefully raised the awareness of PDAC and the opportunities available at the convention, which University of Regina geology undergraduates were not previously aware of.

Report prepared by for Saskatchewan CGEN Regional Chapter meeting, December 5, 2012.

**CGEN YUKON REGIONAL CHAPTER
ANNUAL UPDATE, 2012-2013**

Contact: Sarah Laxton
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Mining Week, Whitehorse (May 10-11, 2013)

Exploration tent-camp at Shipyards Park – open to the public
Hands-on geoscience activities for 200 students
Women in Mining Career presentations
School tour of the Whitehorse Copper Belt

Geoscience Workshop for Yukon Teachers, Whitehorse (Sept. 27, 2012)

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

Yukon Geoscience Forum, Whitehorse

Student Tradeshow Tours & Photo and caption contest
Public hands-on geoscience activities at Geoscience public day

Permafrost Outreach Program, various Yukon communities (Fall 2012 and Spring 2013)

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 and Yellowknife Geoscience Forum

School & public activities, various Yukon communities

Copper Belt Tours
High school Geology field trips
Classroom presentations
Yukon College school of Mining students – core logging lab at YGS Core Library
Copper Ridge Place care residents – tour of YGS Core Library
Collaboration with Dept. of Environment for Canada Water Week – class room presentations and hands-on activities flowing glaciers and erosion by water

Jane Londero, Geology 12 Teacher, Whitehorse

From April 1-9, 19 educators from across North America spent time upon the JV RESOLUTION while she was tied up at the dock at Ogden Point in Victoria, B.C., participating in the IODP School of Rock. There were two Canadians, Sarah Thorton, a Geology Lab Assistant from the University of Victoria and Jane Londero, a Math and Science teacher from Whitehorse, Yukon.