

CSEG Foundation 2015 Annual Report

Report from the Foundation Chair

Larry Herd, Foundation Chairman

This year the Foundation, experienced the effects of the market downswing, as did many organizations in the earth sciences field. What was to be a break-even budget year is expected to wrap up with a deficit, which will have the effect of reducing our overall asset account by roughly \$96,000. With our asset base being so strong, the Foundation Board of Directors specifically elected to continue funding the programs that the Foundation supports in spite of reduced income so that our services to the public and specifically our students were not adversely affected. The Board will continue to monitor our financial situation and make prudent budgeting and fund allocation decisions while ensuring the continuation of our core programs. This will likely mean continued deficit budgeting for 2016 and perhaps the following year, until the industry recovers from the current market troubles.

Who we are:

The CSEG Foundation is a *registered Canadian organization* – the charitable operating arm of the Canadian Society of Exploration Geophysicists. It was initiated in 2003-04 as the brainchild of several CSEG Past Presidents and received charitable status in 2006. It is managed by an independent Board of Directors, is closely aligned with the CSEG and is ultimately controlled by the CSEG. The **Mission** of the CSEGF is: *to encourage and support scientific, educational and charitable activities that benefit geophysicists through the solicitation of contributions aimed at promoting the development of geophysical knowledge, education and public awareness.*

When the Foundation attends public events, career fairs, conferences for university students, high school science teachers and career counsellors, we strive to make the public more aware of geophysicists' contribution to the well-being of Canadian society. We convey to educators, students and the public our key role in not only the petroleum and mining industries but also in environmental engineering and the mapping of natural hazards. The scientists and support persons in the CSEG are ethical and conscientious stewards of the environment. They help to find and develop the resources essential to our daily lives.

The Foundation is a volunteer-run organization with only a small staffing overhead. Funding to support the Foundation's activities comes from generous donations from the public, members, corporate sponsors and the CSEG itself. Thanks to all who have contributed to this year's success through either your volunteer time or your financial support.

2015 Board of Directors: (names in **bold** are Directors; *designates a CSEG past-President) Each Director's term is nominally three years and candidates may be nominated either by the membership or through a nominating committee.

Larry Herd* (Chair), **Perry Kotkas*** (Past Chair and Secretary), **Mike Clement** (Treasurer), **Susan Thomson** (Assistant Treasurer) **Annette Milbradt** (Finance), **Marian Hanna** (CSEG Rep.), **Dennis Ellison** (Outreach Chair), **Andreas Cordsen** and **John Boyd*** (Fund Development Co-chairs), **Brian Emmerson** (Scholarships Chair), **Sean Contenti** (Travel Grants and Learning Subsidies Chair), **Helen Isaac** (Communications), **Mauricio Sacchi** (Director-at-Large), Don Lawton (CSEG Distinguished Lecturer Chair), Jim Racette (CSEG Managing Director), Alyssa Middleton (CSEG staff).

This year's highlights

- Foundation assets grew in excess of \$2M thanks to the generous donations of our members and corporate supporters.
- For the 2015 budget year, the Foundation Board elected to reallocate \$12,000 of the annual operating funds to specifically support programs for unemployed members.
- Outreach/University Student Outreach (USO) continued to support students in universities and high schools, and to inform educators and the public at large about geophysics and the CSEG. Outreach is the Foundation's largest group and accounts for about half of our operating budget. Outreach sent representatives with informational displays and handouts to teachers' conferences, science and physics conferences, career counsellor's conferences, and career fairs.
- We continue to support post-secondary education and students. From 72 applications for university **scholarships**, the Foundation awarded 15 scholarships to students at eight universities across Canada. In addition, one scholarship was awarded to a student at a technical institute, and three scholarships were awarded to high school students entering university in the fall of 2015.
- The Foundation provided **travel grants and learning subsidies** to help Canadian undergraduate and post graduate students take courses and attend conferences, seminars and geoscience field trips. In 2015, \$11 000 in funding was provided to assist over 60 recipients in support of travel or registration in events during the 2015 calendar year.
- Our 2015/2016 **Distinguished Lecturer** is Dr. Mauricio Sacchi, who is giving his talk entitled "New and not-so-new applications of low-rank matrix and tensor completion to seismic data processing" at various universities and institutions across Canada and in Alaska, wrapping up in April, 2016.
- By connecting with our **Ambassadors and University Student Outreach Programs**, we continued to host receptions at a number of lectures and provide information on CSEG membership to students and CSEG members across Canada.
- The **Geophysical Industry Field Trip** (GIFT) took over 40 students from eight different universities to various host companies, where they learned more about operations, processing, interpretation and other elements of applied geophysics.
- The fifth **Earth Science for Society** (ESfS), partnered with APEGA, CSPG and CWLS, which has many CSEG members on the organizing committee, hosted over 650 members of the public and over 1,350 junior high school students from 11 schools.
- **Seismic in Motion for Students**, run jointly with the CAGC, took more than 200 high school students to the Waiparous area to spend a day seeing all of the aspects of seismic field operations, learn about job opportunities, and hear how we minimize environmental impact.

In the big picture, **the CSEG Foundation's ongoing success** is attributable to several things:

- A strong and varied-experience Board of Directors, a good set of Governance procedures and advice and input from experienced and engaged members.
- Outstanding volunteers, some who have contributed for many years and some who are brand new, creating a dynamic mixture of experience, enthusiasm, energy and new ideas.
- Excellent financial support from our donors, including a number of very significant individual donations (please see our Donor Recognition List in the April 2015 Recorder).

Foundation Finance Committee Report

Mike Clement – Treasurer and Director

Susan Thomson – Asst. Treasurer and Director

At the end of 2014, the Canadian Society of Exploration Geophysicists Foundation (CSEGF) approved a breakeven budget for 2015. It has been a difficult year for fund raising and sponsorship on all levels within the CSEG and the CSEGF due to the unprecedented downturn in oil and gas revenues of our corporate members and the effect that has had on our individual members. It was also recognized early in 2015 that the CSEG would not be able to provide the CSEGF with the expected \$88,000 in funding.

That being said, the CSEGF has managed to maintain their bottom line on their balance sheet from the end of 2014 to the end of Q3 2015 to a small loss of approximately 1 percent. This is due in part to the CSEGF investment with the Calgary Foundation being particularly robust. In 2015, the CSEGF board approved an additional investment of \$90,000.00 to the Calgary Foundation, adding to the initial investment of \$500,000.00 made in 2013. As of September 30, 2015, that investment value is now \$731,697.41. In 2015, the Foundation has been able to maintain all of the programs that were funded in 2014.

Every month, the CSEG Foundation's finances are overseen by the CSEGF financial team and the CSEGF accountant and approved by the board. The financial policies and processes are well defined and strict protocols are followed. Our assets have been distributed over many GIC's to maintain insurability by the CDIC. The Investment Policy, originally approved by the Board in 2014, was updated in 2015. This policy has guided the Foundation's investment choices. It sets out financial objectives and guidelines for risk, targets, and investment mix that best protect the Foundation's funds.

Pending final audit, the Foundation's total assets at yearend are sitting at just over \$2,000,000. As of September 30, 2015, the CSEG Foundation has long term funds distributed over 11 GICs and a managed fund at the Calgary Foundation. Previous years' audited financial statements are available on the CSEG website: <http://cseg.ca/foundation/about-the-cseg-foundation>

At the time of this report, projections for the 2015 are: Total budgeted revenue of \$137,911.19, total budgeted expenses of \$224,462.57, total net unbudgeted revenue of (\$9,692.55), resulting in net revenue of (\$96,243.20).

The CSEG Foundation Board is in 2016 budget discussions in Q4 2015 and, when finalized, the budget will be forwarded for final approval by the CSEG Executive. Due to the current state of the economy, overall budget levels and programs funded may be reduced. The CSEG Foundation will continue to exercise fiscal prudence during this economic downturn.

I would like to acknowledge and thank Susan Thomson, the incoming Assistant Treasurer, for her invaluable contributions since coming on board in July, Annette Milbradt for her experience and wisdom with all things Foundation, Jim Racette and Alyssa Middleton for their help and support in the CSEG office, as well as Spryng Kubicek, our accountant at Associations Plus, and Murray Hunter, our auditor for their work and their guidance.

Foundation Fund Development Committee Report

John Boyd, Co-Chair and Director

Andreas Cordsen, Co-Chair and Director

In a difficult year for both corporations and individuals, new donations were understandably less than in previous years. We continued to receive support however, and on behalf of the Board of Directors and all of the students and CSEG members who benefited from Foundation programs, we thank all of you who have contributed to the Foundation.

The CSEG Foundation assets at the end of October were \$2,010,625 and the Endowment reached \$1,548,625. We received \$112,161 from previous pledges, new donations and sponsorship for programs. The CSEG has, in previous years, made significant donations to the Foundation but we knew that would not be possible in 2015. Fortunately, our strong financial position allowed us to maintain our programs, albeit somewhat reduced and with expenses trimmed.

The Fund Development Committee met monthly and concentrated more on plans for the future than on fundraising for this year. We did solicit funds from Corporations to help finance some of our programs, but not for the endowment. We have trimmed expenses but have not made significant reductions in any of our programs, nor have we budgeted such reductions in 2016. The Directors believe that we need to maintain our programs during a downturn. We also believe that when we are ready to start soliciting donations, again we can remind potential donors that their previous donations allowed us to maintain our programs in difficult times.

We are continuing to develop a program to promote planned giving, encouraging gifts from the estates of our CSEG members. Derek Fraser, our fundraising advisor, has been very helpful with this effort. We will describe the benefits of planned giving on our website and we have set up a committee of senior CSEG members who are able to discuss it with their peers.

An effort to promote alumni support for scholarships and other university programs was launched at an alumni reception held before the Challenge Bowl at the May GeoConvention. The CSEG membership list does include most of our members' alma maters and we will attempt to collect more data through our annual renewals to help us organize alumni groups.

Scholarships, Outreach and Travel Grants all require fundraising and now the directors responsible for these programs are part of the Fund Development Committee.

Foundation Outreach Committee Report

Dennis Ellison, Chair and Director

Doug Uffen, Vice-Chair

The CSEG Foundation Outreach Committee matures and maintains relationships between the CSEG and its current members, prospective members, and university students. As per our mandate we focus heavily on developing awareness and education of the field of geophysics in these groups, as well as in grade school students and the general public. Through 2014, the CSEG Executive and Foundation continued their solid financial and moral support, allowing our many volunteers to complete successfully another full year of productive activities.

The committee's core members for the 2015 year are Dennis Ellison, Doug Uffen, Karen Chong, Stephen Kotkas, Chris Bird, Frank Ryan, Ben Consolvo, Deepi Mand, Annette Milbradt, Jeff Calvert and Alessandro Carducci.

Supporting the committee in its many initiatives is a very large group of volunteers. Thank you to those who generously gave their time and energy, making this another highly successful year for the Committee. Thanks are due also to the many companies and organizations who allowed their staff to participate in our many programs and initiatives.

Alessandro Carducci chaired **Schools Outreach** and Deepi Mand chaired **Public Outreach**. Our dedicated and enthusiastic volunteers attended over 20 career fairs and assorted exhibitions in 2015, talking to students and the public about geophysics. We took our booth all over Canada, including Vancouver, Kamloops, Kelowna, Winnipeg, Saskatoon, Regina, Canmore, Edmonton, and Toronto, as well as to many local venues in the Calgary area. With the booth we present the science of geophysics using PowerPoint presentations, interactive seismic displays and other teaching aids. Volunteers also responded to requests from schools for numerous in-school presentations.

From March 15th to 17th 2015, over 2000 students, teachers, and general public attended the fifth annual highly successful **Earth Science for Society (ESfS)** exhibition. ESfS had a strong line-up of exhibitors and over 120 volunteers contributing 765 hours to the success of the event.

From September 29th to September 30th, 2015, CSEG-F Outreach hosted over 200 high school students and teachers from multiple CBE high schools at the **Seismic in Motion for Students** field trip, where companies showcase their seismic acquisition technologies and procedures. Outreach volunteers visited the schools beforehand and briefed students about careers in geophysics, and prepared them for their day in the field. They also guided the students on-site through various field stations, including the CSEG booth. At the booth, we provided participants with an integrated overview of the various parts of the program. We continue to receive positive feedback from participants and extend a big thank-you to all the volunteers and sponsors for their generous time and financial contributions to these important and successful events.

The **University Student Outreach (USO)** committee was led by Chris Bird and Frank Ryan. This year it brought the Outreach booth to five undergraduate conferences, including the Canadian Geophysical Union's convention for the first time, attended multiple university career fairs and presented several Best Geophysical Paper awards. The USO maintained its ongoing communication with students through e-mail and regular newsletters, connecting them with the Scholarship committee and the Foundation for travel grants; organized a student area at the convention; helped to deliver GeoSkills 2015 for

university students and junior geophysicists; provided networking opportunities; and ran the annual summer student field trip (**Geophysics Industry Field Trip, GIFT**) for over 40 university students from universities across Canada.

The USO also maintained its cooperation with other organizations to help administer events such as the Calgary Talk Series, and CSEG/EAGE's student chapter talks. The Mentorship program chaired by Nathan Fester, is in its seventh year and continued its steady growth through 2015. Workshops for both mentees and mentors were held. Not only has the program accumulated more than 60 protégé-mentor pairings between university students and seasoned professionals, but has also extended using various and innovative forms of mentorship in order to reach mentees across Canada.

We are pleased to recognize and thank **Chevron** for their generous sponsorship of 2015 student memberships, and we are searching for our 2016 sponsor. We greatly appreciate all past companies for this valuable contribution!

In order to further education outreach, the newly created Educational Resources sub-committee has created a complete online source of educational materials, lesson plans, and experiments related to the field of geophysics and directly associated with the Alberta curriculum, for the use of teachers and students

The 2015 **Challenge Bowl** subcommittee was led by Lewis Jones and supported by many volunteers, notably Stephen Kotkas and Chris Bird. The event's indefatigable host and moderator, Peter Duncan, once again navigated eight teams of competitors vying for an expenses-paid trip to compete in the Challenge Bowl finals at the 2015 SEG convention in New Orleans. Duncan's high energy style fed enthusiastic audience participation throughout the action-packed geoscience competition. Reid Campbell and Brandon Clayton of University of Manitoba won the Canadian Division and placed 4th in the finals in New Orleans.

CSEG Outreach members volunteered on the **Honorary Address (HA) committee**, chaired by Keith Millis. This year's event took place in November, with the theme Planetary Geology: Exploring Mars. Mars Exploration Rover Project Scientist Matt Golombek of the California Institute of Technology Jet Propulsion Laboratory, and Don Hladiuk, Past President of the Royal Astronomical Society of Canada were the Keynote speakers for the event. Matt highlighted the importance of understanding earth's processes and how we can apply them to Mars and other planets to learn about their history and how geoscience is used to find rover landing sites. This event took place at the Arts Commons in the Jack Singer Concert Hall.

Outreach members work with many other organizations to share outreach and education ideas and resources and to support their complementary geoscience initiatives. This collaboration has facilitated our continued expansion into B.C. and central and eastern Canada in 2015.

Helen Isaac is the CSEG Foundation Communications Director who coordinates reports regarding Outreach activities. We encourage you to read our column in the Regular Features section of the RECORDER.

We're always looking for enthusiastic and energetic volunteers interested in helping with our activities. Contact us at outreach@cseg.ca for more information.

University student and technologist scholarship recipients in 2015 were:

Recipient	Institution	Sponsor
Jennifer Adam	U New Brunswick	Pulse Data Inc
Sean Bettac	U Alberta	Hampson-Russell
Wesley Campbell	U Waterloo	CSEG Foundation and John Townsley
Fernanda Carozzi	U Alberta	Andreas Cordsen
Craig Christensen	U Calgary	CNRL
Raul Cova	U Calgary	CSEG Foundation (awarded to a University of Calgary student, following the Geoconvention Alumni Draw)
Jeremy Gosselin	U Victoria	Brian Emmerson and Talisman Energy (Part of the Repsol Group)
Nadine Igonin	U Calgary	Talisman Energy (Part of the Repsol Group)
Ayodeji Kuponiyi	U Victoria	Arcis
Junxiao Li	U Calgary	CGG
Christopher Nixon	U Alberta	Anonymous donor
Peter Oliver	Carleton U	Rob Shugg Memorial Fund
Sherry Rath	U Alberta	Athena Resources Ltd
Yana Tyomkin	U Manitoba	Marc Boulet and Cenovus Energy
Callum Walter	Queen's U	CSEG Foundation and the CSEG Ambassador Program
Nathan Rose	SAIT	CSEG Foundation

High school recipients of scholarships, entering into university science programs in the fall of 2015 were:

Recipient	Institution	Sponsor
Robyn Cameron	U Alberta	Perry & Karen Kotkas
Grace Knowles	St FX	Perry & Karen Kotkas
Lulu Lu	McMaster	Anonymous donor

Foundation Travel Grants and Learning Subsidies Committee Report

Sean Contenti, Chair and Director

Committee: Sean Contenti, Daniel Loas, Kun Guo

The role of the Travel Grants and Learning Subsidy (TGLS) program is to provide student and professional CSEG members with financial support to develop awareness, knowledge, and skills in the geosciences by supporting educational and professional development opportunities. As in 2014, Andreas Cordsen has once again supported the TGLS program through a dedicated sponsorship commitment to the CSEG Foundation. Thank you Andreas; our committee sincerely appreciates the continued generous support.

The TGLS committee strives to provide easily accessible funding to our applicants and to build and maintain relationships with our numerous recipients. In turn, we ask our funding recipients to provide written summaries of their educational experiences which are published in the CSEG Recorder in order to share with the CSEG community.

The growth in demand for the CSEG Foundation (CSEGF) Travel Grant and Learning subsidy (TGLS) program through the 2012 (\$8 255), 2013 (\$18 138) and 2013 (\$22 616) funding years provided the CSEGF with incentive to provide the TGLS program with a budget of \$30 000 for the 2015 funding year. This allowed the TGLS program to provide, as of this report, over \$11 000 in funding for over 60 recipients to travel or participate in events during the 2015 calendar year. We are proud to have been able to assist members of the CSEG professional community in Calgary and area through sponsorship of the CSEG Emerging Professionals Program, as well as students from the following universities:

University of British Columbia

University of Alberta

University of Calgary

University of Manitoba

The TGLS committee is focused on continuous improvement to ensure that funding is impactful, easily accessible, and our guidelines flexible enough to accommodate both individual and group applications for events in Canada, or around the world. Towards this goal, the TGLS committee is pleased to report that a previous effort, developing an online application form, has been successful and is functioning to streamline the application process for applicants. The TGLS committee has requested a budget of \$20,000 for the 2016 calendar year, and will be undertaking efforts to increase our exposure with under- and un-employed CSEG members, with a focus towards providing funding for skills maintenance and ongoing professional development.

The 2016 TGLS committee would like to continue to encourage relationships with university student groups to facilitate annual application continuity for specific events (GeoConvention, GIFT, SEG Annual Meeting, geophysical field schools). Student groups that communicate their intention to send yearly delegations to events can help to improve the predictability of the TGLS yearly budget and, consequently, make CSEGF funding amounts to groups more predictable. As well, the 2016 committee would like to forge partnerships with new and existing educational or professional development initiatives (CSEG Emerging Professionals Program, others), to reduce or eliminate financial barriers and promote continuing geoscientific and geophysical education.

Foundation Communications Report

Helen Isaac, Chair and Director

The Communications portfolio has the responsibility of coordinating CSEG website updates and connections between the Foundation and the general membership. The website updates keep the membership informed about activities such as scholarships, the mentorship program, GIFT, the Travel Grant and Learning Subsidy, and the CDL tour. The Foundation page on the website also includes information about the board of directors, all the activities we support, and annual reports and audited statements.

The Foundation communicates to the membership through personal letters and articles in the Recorder. In 2015 the Recorder published articles on student-oriented activities such as the Mentorship program, scholarships, and Outreach activities in schools, at career fairs and at the GeoConvention. We also published a major article about the Foundation and all its activities and fund-raising efforts. The article listed our donors and thanked them for their generosity. We also wrote about Fund Development and its initiatives.

All communications from the Foundation to its members are edited for content and appearance to give a consistent message. In particular, Communications works closely with Fund Development to create letters thanking donors or soliciting funds.

Canadian Distinguished Lecturer Committee Report

Dr. Don Lawton, Chair

Dr. Mauricio Sacchi, 2015/2016 Distinguished Lecturer

The Foundation operates the national CSEG Canadian Distinguished Lecture Tour, an annual event that started in 2005. Many post-secondary Geoscience departments across Canada host an industry or academic expert, who delivers a presentation highlighting topics of current interest.

The 2015/2016 Distinguished Lecturer is Dr. Mauricio Sacchi, a well-known Edmonton-based academic in the world of seismic signal processing and imaging and recipient of the 2012 CSEG Medal, the highest award that the Canadian Society of Exploration Geophysicists bestows. Mauricio is presenting his talk “New and not-so-new applications of low-rank matrix and tensor completion to seismic data processing” to various different universities and institutions across Canada and into Alaska, wrapping up in April, 2016.