

# apatite

(for information!)



Newsletter of the Association of Professional Geoscientists of Ontario

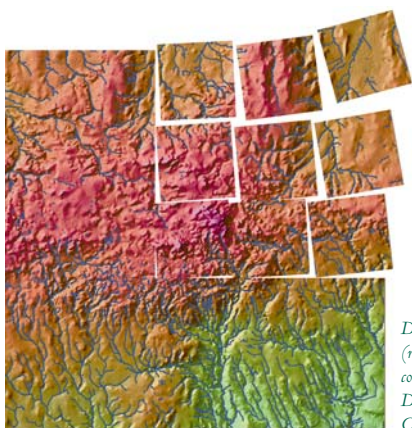
Number 1 December 2001

www.apgo.net

We've given the association's newsletter a new name and a fresh look to mark the beginning of APGO's registration of professional geoscientists.

If you refer to your geology dictionaries, "apatite" is defined as: "a mineral,  $\text{Ca}_5(\text{PO}_4)_3(\text{OH},\text{F},\text{Cl})$ , found in igneous rocks, especially pegmatites\*, and in metamorphosed limestones. Varieties form bones and teeth. It is the main source of phosphates".

The "other" meaning you're already familiar with... We think this name has both humour and relevance to the newsletter, and that you'll find the new look a happy change.



Depiction of central region (red) of the Oak Ridges Moraine is courtesy of the Terrain Sciences Division, Geological Survey of Canada

## More Inside

Minister approves final regulations page 2

APGO weighs in on  
Oak Ridges Moraine page 3

Canadian group studies  
national registration page 4

Mobility agreement with Quebec  
under discussion page 4

Calendar of events page 4

The way the association works page 5

A barrier-free Act page 6

Answers to your questions about National  
Instrument 43-101 page 6

NI43-101 - are we seeing results? page 7

In the news page 7

\*Pegmatite. A very coarse-grained igneous rock having a grain size of 3 cm or larger, with crystals occasionally reaching a metre or so in length; very rarely, lengths of some 10 metres or so have been recorded.

## President's message

### It's time to join

by Bill Pearson

Welcome to the first APGO newsletter.

As the end of 2001 approaches, APGO is pleased to announce the release of membership application packages and the first registration of professional geoscientists.

The Complaints and Discipline Regulation is expected to be available this month for public consultation. The final proclamation of the *Professional Geoscientists Act, 2000* will likely be in mid-2002, about two years after the Act passed. As this chapter in APGO closes, we are starting a new and exciting one — building the membership of our new professional association.

continued on page 2

## Ontario helps fund association

The Ontario government has given \$25,000 to help the Association of Professional Geoscientists of Ontario (APGO) as it begins registering new members, Northern Development and Mines Minister Dan Newman announced recently.

continued on page 2

## APGO vision for the future

**Mission:** To serve the public by regulating, enhancing and providing leadership in the practice of the profession of geoscience in Ontario.

**Vision:** To be the leader of the geoscience profession for the benefit of society.





## It's time to join

*continued from page 1*

The theme for our second annual meeting, scheduled next May, is "Excellence in Professional Geoscience." Raising the bar is an important goal of professional registration and this meeting will highlight the work to develop best practice guidelines in major areas of geoscience practice.

Building professional pride is also important. A key objective of our association is to inform the public about geoscience. As the association grows, this will become more and more important. In 2002, APGO Council will develop programs to accomplish this objective. To be successful, we need you to get involved.

I recently attended the annual meeting of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) held in Richmond, B.C. Representatives from all provinces attended, giving a national focus to the meeting. I was impressed at how the recognition and standing of geoscientists in the APEGBC has significantly increased.

The same is happening here in Ontario as APGO works closely with PEO on issues of mutual interest and concern. For example, we made a joint presentation to the legislature on Bill 56, a bill about the standards for the environmental assessment and cleanup of contaminated sites.

The operations of AGO will be wrapped up by the end of this year. I cannot say enough about the tremendous support of AGO members. Thank you all very much!

Throughout the many ups and downs I could always count on the strong support of the geoscience community. The APGO councillors and executive will work hard to represent you as we develop a world-class professional geoscience association.

*Bill Pearson is the president and executive director of APGO.*



## Register with APGO

*By now, all AGO members should have received their application packages to become registered professional geoscientists. If you haven't already sent in your application, complete it today!*

- \* Ask your school(s) to send APGO your transcripts.
- \* Find three referees to verify your work experience.
- \* Write the professional practice and ethics exam if you have not written the equivalent in another jurisdiction. There is a deferral period for the exam until March 31, 2003. More information about the exam will be available soon.

*Once you are designated as P.Geo., you will become eligible to be a qualified person under National Instrument 43-101. Being registered will be a legal requirement when the Act is proclaimed, most likely in mid-2002. It may soon be a requirement for environmental practice as well. If you did not receive an application package or have questions on how to fill it out, please call APGO at: 416-203-2746, or e-mail us at [info@apgo.net](mailto:info@apgo.net).*



## Minister approves final regulations

Northern Development and Mines Minister Dan Newman announced the approval of the final regulations governing membership registration in the Association of Professional Geoscientists of Ontario (APGO) in October.

"This development, along with many other government initiatives announced in the past year, supports a strong and healthy mining investment climate that favours exploration and job creation in Ontario's mining industry," Newman said.

"Our professional status will inspire public confidence and empower the association to promote skill and integrity among our members," said Bill Pearson, president of the association.



*Minister Dan Newman*



## Ontario helps fund association

*continued from page 1*

*"We are committed to promoting the highest professional standards among geoscientists," Newman said. "Public health and safety will be enhanced as geoscientists conducting environmental investigations also maintain the high standards."*

*The association became the governing body of the geoscience profession in Ontario with last year's passage of the Professional Geoscientists Act 2000. Under the Act, Ontario geoscientists who meet the prescribed qualifications and abide by the code of ethics will be formally recognized as professional geoscientists.*



## APGO weighs in on Oak Ridges Moraine

### apatite is published four times a year by:

APGO  
 8 King Street East, Suite 400  
 Toronto ON M5C 1B5  
 Tel: (416) 203-2746  
 Fax: (416) 864-1675  
 Email: info@apgo.net  
 Web: www.apgo.net  
 We welcome your letters to the editor. Please forward your letters to the editor, care of Marilyn Barton at APGO, mbarton@apgo.net. Please include your full name, telephone number and city.  
 The Professional Geoscientists Act, 2000 established the Association of Professional Geoscientists of Ontario (APGO) as the self-regulatory body for professional geoscientists. When the Act is fully proclaimed, APGO will govern the practise of professional geoscience in Ontario.

### APGO Council

Bill Pearson, *President*  
 John Bowlby, *Vice President*  
 Neil Westoll, *Treasurer*  
 Velasquez Spring, *Secretary*  
 Adriana Benoit  
 John Buckle  
 Andy Cooper  
 Michael Cosc  
 Greg Finn  
 Sandra Garafolo  
 Maureen Jensen  
 Scott McLean  
 Arsalam Mohajer  
 Ken Petersen  
 Richard Puntis  
 Bil Stiebel  
 Steven Usher

*Interim Executive Director:*  
 Bill Pearson  
*Interim Registrar:*  
 John Bowlby  
*Manager, Administration:*  
 Marilyn Barton  
*Registration Assistant:*  
 Melinda Semikiw  
*Editor:* Colleen Mellor  
*Design:* Diane Mellor

The APGO recently told the provincial government's Oak Ridges Moraine Consultations group that the association supports the process to identify and protect environmentally sensitive areas of the Oak Ridges Moraine. APGO also supports the Ministry of the Environment's program to study and map groundwater resources in Ontario.

In response to the Ministry of Municipal Affairs and Housing invitation for comments on its consultation document, *Share Your Vision for the Oak Ridges Moraine*, this fall, APGO submitted recommendations developed by its environmental committee.

The association's brief noted that proper management of the Moraine "must be based on good science." APGO recommended that experienced scientists and engineers form a multidisciplinary advisory committee to provide independent scientific and engineering advice to the proposed Oak Ridges Moraine Legacy Trust.

APGO noted that the responsibility of scientific mapping and studies should be given to the Ontario Geological Survey (OGS) because of its expertise.

"We would respectfully suggest that the scientific geoscience mapping of the Moraine is really only the beginning, and that an important part of the Vision that has not been addressed is the continued scientific mapping of the Moraine by qualified geoscientists," the brief said.

Representing the experts who develop and carry out groundwater exploration, development, protection and management programs, APGO made the following recommendations to protect groundwater resources:

- \* Water resources studies should recognize the interdependence of the hydrologic cycle through integrated assessment of surface and groundwater resources on a watershed basis;
- \* Groundwater aquifers should be mapped, current usage assessed, aquifer water quality and sustainable safe yield determined, recharge areas

and discharge zones delineated, and groundwater resource protection and management plans implemented;

- \* The contribution of groundwater in sustaining springs, wetlands and base flow in streams and rivers should be considered in assessing aquifer water supply demand and supply issues associated with development;

- \* The permit-to-take-water system should be managed on a watershed basis and consider both surface

and groundwater withdrawals in watershed water budget management;

- \* The public is educated about the sensitivity of groundwater resources to pollution and the need to establish land use restrictions in certain areas to protect groundwater;

- \* The Qualified Person (QP) concept should be applied to groundwater studies. A QP would be a licensed professional geoscientist or engineer trained as a hydrogeologist and having a minimum of five years relevant experience. Licensed professionals are subject to a complaints and discipline process and are accountable to the public.

In response to the consultation document, the Ministry heard from more than 400 individuals or groups. More than 2,000 people attended meetings and 165 stakeholders took part in the workshops.

Minister Chris Hodgson recently announced a comprehensive plan to protect water resources and natural features on the Oak Ridges Moraine. "The plan would protect wellheads, cold water streams such as those running into Lake Simcoe and all kettle lakes on the Moraine," Hodgson said. "It would require innovative stormwater management practices to protect sensitive recharge areas and prohibit technologies that cause rapid infiltration of stormwater into groundwater."



www.apgo.net

*Chromostereo DEM enhancement of the Greater Toronto Area. The Oak Ridges Moraine is the east-west elevated ridge (red), across the centre of the image.*

*Image courtesy of Geological Survey of Canada*





## Canadian group studies national registration

After successfully establishing the Inter-Association Agreement on Mobility, the Canadian Council of Professional Geoscientists (CCPG), with the Canadian Council of Professional Engineers (CCPE), continues to study the potential implementation of national registration.

“There’s a strong intention to come to a solution for this,” says Bill Pearson, president of APGO. National registration would mean that for an extra fee, registered professional geoscientists across Canada could work anywhere in the country without having to apply for another provincial licence.

The mobility agreement, implemented in June, enables geoscientists who move from one of the signing jurisdictions to another to be more readily accepted provided he or she is in good standing with the home association. The mobile geoscientist will still have to apply for a licence in the new province. Signatories are British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick, Northwest Territories, Newfoundland and Ontario.

In addition to studying national registration, the CCPG is looking at an incidental practice program similar to what lawyers have. It would allow a geoscientist to work for a short time in another province without applying for a licence.



## Mobility agreement with Quebec under discussion

An agreement with the Ordre des Géologues du Québec (OGQ) will allow Ontario geoscientists to practice in Quebec under the transitional period in the Quebec Act, says APGO president Bill Pearson. The agreement allows AGO members up to February 1, 2002 and APGO members after that, to practise in Quebec until August 22, 2002.

Pearson says that APGO is discussing a mobility agreement with Quebec and hopes to have something in place when the transitional period in Quebec ends.

Quebec’s act to register geoscientists passed on May 31, 2001 and became effective August 23, 2001.

## Calendar of events

**March 10 - March 13, 2002**  
**The Prospectors’ and Developers’ Association of Canada’s International Convention and Trade Show, Metro Toronto Convention Centre.**

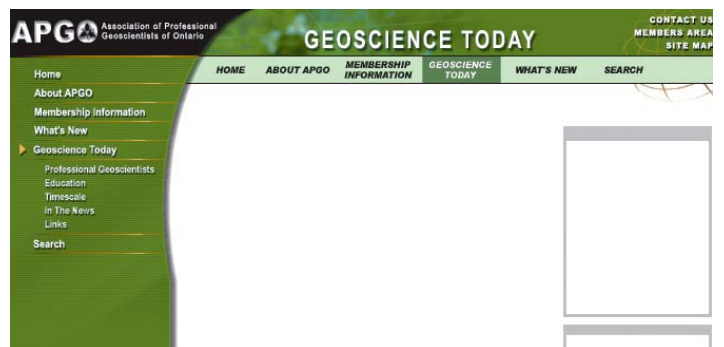
**May 8, 2002**  
**Association of Geoscientists of Ontario Annual General Meeting, 4 p.m., followed by the President’s Reception.**

**May 9, 2002**  
**Second Annual General Meeting of the Association of Professional Geoscientists of Ontario. Theme is “Excellence in Professional Geoscience”. Special guest luncheon speaker - The Honourable Dan Newman, Minister of Northern Development and Mines.**



## Visit [www.apgo.net](http://www.apgo.net)

Visit the new APGO Web site at [www.apgo.net](http://www.apgo.net)! It’s an exciting new site that will provide comprehensive information to readers on how to become a licensed professional geoscientist in Ontario. The site also fulfills APGO’s obligations to the public to provide information about the association and what geoscientists do.





## The way the association works

APGO has finalized the association's by-laws. The by-laws set out how the association operates; the fees and dues for members; the rules for the certificate of registration and the seal; the committee structure and the election process.

Council and the members have control over the by-laws and can change them through a voting process, unlike the *Professional Geoscientists Act, 2000* and regulations, which can only be changed through the legislature and the minister overseeing the Act, respectively.

**By-law 1** describes how association meetings are conducted, the duties of the council members, how committees are established and operate, the management procedure for association funds and property, and how amendments to regulations and by-laws are made. It also notes that the association will be a member of the Canadian Council of Professional Geoscientists, paying annual dues and appointing a representative to it.

**By-law 2** explains the application fees and annual dues of the association. For example, the application fee for a certificate of registration, a certificate of authorization or transfer from another association is \$175 + GST. Practising members pay \$275 + GST a year for membership dues. Annual dues for the certificate of authorization vary depending on the number of practitioners. A sole-practitioner enterprise pays \$125 + GST; a two-practitioner enterprise pays \$225 + GST; and an enterprise with three or more practitioners pays \$325 + GST. Fees and dues are subject to change.

**By-law 3** details the rules for the certificate of registration and the member seal. Professional geoscientists sign, date and apply their seals only to a final copy of a drawing, figure and/or report. The original, kept by the member who holds responsibility for it, is the master document. A final report is signed, sealed and dated on the signature page of the document.

**By-law 4** spells out who needs a certificate of authorization, how to apply, the certificate's content and how it's displayed. Holders of these certificates must have professional liability insurance.

**By-law 5** details the additional designations for members: honorary member, geoscientist-in-training and student.

**By-law 6** explains how the association appoints the Registration Committee, the committee's terms of reference and the process of appeal. The process for appeal of the Registration Committee decision will be outlined in the *Guidelines and Procedures Manual*.

**By-law 7** identifies the standing committees of Council: executive committee, finance committee, nomination committee, non-member appointment committee, insurance advisory committee, governance committee and a professional practice committee. The by-law outlines the make-up and terms of reference of each committee.

**By-law 8** sets out how elections proceed. The elected Council will be composed of 20 councillors, including: the president; the vice-president; the past-president; two members appointed by the Lieutenant Governor in Council; four non-member appointees; five members elected from the regions, four members elected from the membership-at-large; and the chair of the Council of University Departments of Geoscience of Ontario (CUDGO) or a designate who is a member of CUDGO.

The regions are Northwestern, Northeastern, Southwestern, Central and Southeastern and are defined by postal code areas.

The present transitional Council is considering holding the first election in spring of 2003. In the meantime, next May, the Council will appoint a new vice-president, as the current vice-president, John Bowlby, takes on the role of registrar full-time.

View the complete by-laws for the Association of Professional Geoscientists of Ontario (APGO) on the Web site: [www.apgo.net](http://www.apgo.net)





## **A barrier-free Act**

APGO is proud of its barrier-free Act, says Bill Pearson, the association president. Of all of the associations that require applicants to have at least one year of experience that is Canadian, APGO is the only one that will also recognize experience outside of North America that is considered by the Registration Committee to be equivalent to Canadian experience.

“We’re open-minded, we work in the global community and we don’t want barriers,” says Pearson. Many geoscientists work internationally, so this attitude is natural, he says.

The association requires applicants for registration to demonstrate they have four years of work experience, one year of which is Canadian experience or experience equivalent to Canadian — it could be work done in Australia, the U.K. or the U.S. As long as the applicant demonstrates that he or she meets Canadian standards, the applicant is eligible for registration in APGO.

“This is one of our crowning achievements,” says Pearson. “We are setting the pace for the profession in this country.”



## **When geology meets art**

A new art exhibition called Terrane brings together geology and art. The work is inspired by mining landscapes — the desolate places occupied by humans, yet somehow devoid of human presence when viewed at a distance, writes the artist Suzanne Nacha.

In geology, a terrane is an expanse of territory, a zone of rocks bounded by fault lines, or a region considered in relation to its fitness for some purpose.

The paintings featured in Terrane evoke eerie, desolate landscapes populated by the small, basic shapes of mining buildings and industrial equipment, says the invitation to the exhibition. “The subtle markings and rhythms that define Nacha’s nearly monochromatic, abstracted landscapes suggest the effects of geological processes and the traces of human.”

The exhibition is at the Tatar Alexander gallery in Toronto until January 9. See a preview at: [www.tataralexander.com/cur\\_exhib.asp](http://www.tataralexander.com/cur_exhib.asp)

Visit the gallery at 183 Bathurst Street, Toronto. Telephone: 416-360-3822.

## **National Instrument 43-101: questions and answers**

*The Canadian Securities Administrators have posted a comprehensive list of frequently asked questions on the Web sites of securities regulators in B.C., Alberta, Ontario and Quebec to help mining industry participants and their advisors to understand and apply National Instrument 43-101 (NI43-101).*

*The rule governs how issuers disclose scientific and technical information about their mineral projects to the public, and requires that all such disclosures be based on information provided by a qualified person.*

*The questions cover the application of the rule, details about the qualified person requirement, how an issuer applies the rule, technical reports, preliminary assessments, general disclosure questions and exemption orders.*

*You can find the answers to your frequently asked questions at:*

[www.osc.gov.on.ca/en/Regulation/Rulemaking/Notices/csanotices/43-302\\_notice\\_NI43-101\\_011019.pdf](http://www.osc.gov.on.ca/en/Regulation/Rulemaking/Notices/csanotices/43-302_notice_NI43-101_011019.pdf)



## **Committee sets analyst standards**

The Securities Industry Committee on Analyst Standards (SICAS) issued its final report entitled Setting Analyst Standards. In this report, the committee tabled 33 recommendations.

The key recommendations call for mandatory disclosure of conflicts of interests for the brokerage firms and analysts, prohibition of certain relationships for analysts producing research and registration of supervisory analysts.

“We expect regulators, exchanges and industry participants will act expeditiously to implement these recommendations,” said committee chairman Purdy Crawford. “Our committee will be monitoring progress and will go as far as releasing a report card in a year’s time.”

The Canadian Council of Professional Geoscientists and the APGO submitted comments to the committee preparing the report.

To view the full report, go to [www.tse.com](http://www.tse.com), scroll down to corporate news. Then click on SICAS issues final report.





## NI 43-101— Are we seeing results?

by Jim Whyte

National Instrument 43-101 was supposed to give us better disclosure of exploration results, and on balance it has done that. All the same, we are seeing evolution and not revolution, and there's both good and bad news.

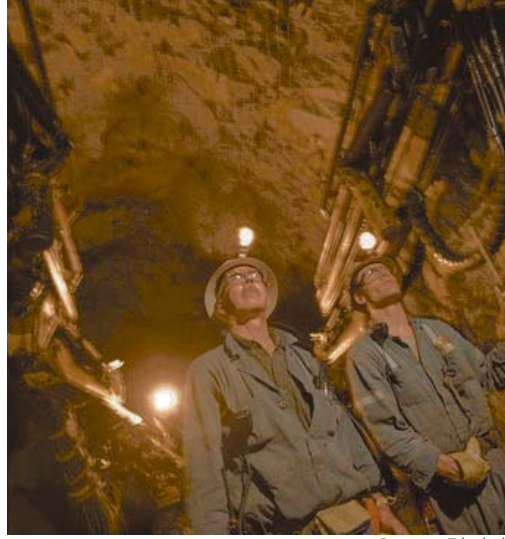
The good news is that more and more often, you see news coming from companies that brings out more complete information, presented clearly and understandably. And there seems to be a willingness to make background information that's not in the news releases available through things like company Web sites: some companies provide sections, maps, and down-hole assay results rather than just averages, and a diligent investor (or nosy mining hack) can find a lot of useful information.

Another happy development is that you now see individuals and firms identified as the Qualified Person. That reassures the public that there really is a person ready to carry the can for what's been said. The experience of the Australians, whose ore-reserve and valuation codes have a similar Competent Person requirement, is that personal or corporate responsibility for the information that goes out is the hub of the wheel: JORC and the Valmin code work primarily because there is a place where the buck stops.

The bad news is not really news but, as Peter Trueman used to say, it is reality. There are laggards, companies that don't seem to be making the effort. My personal bugbear (which I know some others share) is that precious-metal resources are often expressed in gross ounces, rather than as tonnage and grade. Nor is it enough to report a gross-ounce figure with a grade — simple long division doesn't let a reader calculate back to a unique tonnage.

NI 43-101 is fairly explicit on this point, so I can only assume some people are acting as QPs without having read the Instrument. Some day, a QP may wish he had.

This is not, as some people might suppose, a problem unique to junior exploration companies. Even some gold producers, for whom grades and



Courtesy of Falconbridge

www.apgo.net

### In the news

*A recent editorial in the Northern Miner noted that “the last few pieces are falling into the jigsaw puzzle of geoscientist registration in Canada” with the passing of legislation in Quebec and Nova Scotia and approval of regulations in Ontario. “A recognized geoscience profession is one of the essentials of an efficient capital market in the mining industry. A system that ensures that earth science is done by qualified and experienced people is an important guarantor of public safety and public welfare, as well as a safeguard for the environment.”*



tonnes might be thought to be of mild interest in their day-to-day routine, seem to fall easily into this habit.

Another bugbear is how grades are reported in exploration for platinum-group metals. The Form mandated by NI 43-101 specifically says that the “individual grade of each metal” needs to be reported. It seems like common sense, too.

Both of those practices have one thing in common: the company takes data it already has (grades and tonnages, or assays for several metals) and does some simple arithmetic on them that buries information. It's less effort, not to mention better practice, to preserve the information and let the public see it.

It seems that companies that put out good information before NI 43-101 put out better information now. The others give you the impression it's just business as usual.

*Jim Whyte is editor of the Northern Miner.*



**The association  
is pleased to  
acknowledge the  
following contributors  
to the APGO  
Start-up Fund**

**Founding Patrons (\$25,000+)**



Placer Dome (CLA) Limited  
Falconbridge Limited  
INCO Ltd.  
Ministry of Northern  
Development and Mines  
Toronto Stock Exchange

**Sponsors (\$10,000+)**



CIM Toronto Branch  
Noranda Inc. Exploration  
North American  
Palladium Ltd.  
Talisman Energy Inc.

**Friends (\$1,000+)**



CIBC World Markets  
MICON International  
Normandy Mining  
Roscoe Postle & Associates  
Watts Griffiths and McOuat Ltd.  
Teck Corporation  
Southwestern Gold Corp.  
Aurora Platinum Corp.  
Canabrava Diamond Corp.  
Aur Resources Management  
Gartner Lee Limited  
Jagger Hims Limited  
Acres & Associated Environmental Ltd.  
Dillon Consulting Limited  
URS Dames & Moore Canada  
Golder Associates Ltd.

**Major In-kind Contributors**



Aird & Berlis  
Prospectors & Developers Assoc.  
of Canada

**Individual Gold (\$100+)**



Norah (Nean) Allman  
James Beechinor  
John Bowlby  
Bruce Bodden  
Philip Brown  
Donald Bubar  
John Buckle  
Joseph Campbell  
Bill Clarke  
Andrew Cooper  
Michael Cosec  
David Creasy  
Derek Erickson  
Stanley Feenstra  
William Fitzgerald  
Donald Ford  
Sandra Garofolo  
John F. Gartner  
Kenneth Goff  
Robert Gorman  
Kenneth Grace  
Rick Greenly  
Wayne Jackman  
Maureen Jensen  
Brian King  
Michael Knuckey  
David Legault  
Ivan Lieszkowszky  
John Mayman  
David McAuslan

Lindsay Edward Milton  
Phillip Moddle  
Arsalan Mobajer  
John Morton  
Paul Nicholls  
William (Bill) Pearson  
Howard Poulsen  
Norman Wallace Rayner  
Shabe Sabag  
Mohan Srivastava  
William (Bill) Stiebel  
Martin Taylor  
Rodney Thomas  
Jens Touborg  
Steven Usber  
James Whyte  
Roger Woeller  
James Wraith

**Individuals Silver (\$50+)**



Norman Brewster  
George Bruce  
Garry Bryant  
Driffield Cameron  
Douglas Cater  
Joseph Church  
Jerome Paul Chyurlia  
Yves Clement  
Michael Cugino  
John Joseph Drury  
Steven Dutaud  
William Dyck  
William Fitzgerald  
Dennis German  
Peter Grimley  
Janet Haynes-Graham  
Herwart Helmstaedt  
Johannes Hill  
Douglas Hunter  
David Hutton  
Robert Jones  
Alan Judge  
E. J. (Rik) Kristjansson  
Gary Kuehl  
Keith Lovendahl  
Larry MacCormack  
Christopher Marmont  
Michael Milner  
Philip Neville  
Niel Novak  
Irmgard Pawlowski  
Marc Rougier  
Donald Rumions  
Mihail Rusu  
Gene Shelp  
David D. Slaine  
Brian Smerdon  
John G. St. Marseille  
Phillip Thurston  
Gordon Trimble

Christopher Wägg  
Mary-Claire Ward  
Gary Williams  
Heather Wilson  
Stewart Winter

**Individuals Bronze (\$10+)**



Jeffrey Ackert  
Hrayr Agnerian  
Francis Anderson  
John Balinski  
Michael Barnes  
Ben Berger  
Michael Bitton  
Charles Blackburn  
Rick Bonner  
Peter Born  
Richard Bowen  
Frederick Breaks  
Paul Brown  
Martin Brown  
Johannes Brummer  
Chris Burn  
Rory Calboun  
Ian Campbell  
Kenneth Card  
Maurice Carter  
Lesley Chorlton  
Kevin Christian  
David W. Christie  
Charles Churcher  
Ian Clark  
Graham Closs  
Daniel Coch  
Ken Cook  
Alexandre Desbarats  
Tim Dickson  
Brian Docherty  
Peter Duckworth  
Bruce Durham  
Sulaiman Essop  
Khalid Fahmi  
Reni Farvacque  
James Franklin  
Jason Garatti  
Michael Gareau  
Robert Garrett  
Karina Gelo  
Robert Kenneth Germundson  
Bernard Guarnera  
Alan Gutbrie  
Brian Hachkowski  
Gerald Harper  
Zia-Ul Hasan  
Terrence Hennessey  
Darren Hodder  
Robert Horn  
Philip Hum  
John Hyslop  
Genci Kallfa

Ludvig Kapllani  
Robert James Kasner  
George Kent  
David Kerr  
Sherjil Ahmad Khan  
Douglas Killey  
Stephen Kistobh  
John Korezak  
Pierre Lalonde  
Valton Landrum  
Patricia Lapcevic  
Vasillaq Leci  
Daniel Leroux  
Hugh Lockwood  
David MacDonald  
John Macdonald  
Donald MacKenzie  
Scott MacRitchie  
Gail McFall  
Richard Middaugh  
Tammy Middleton  
Mark Mihalasky  
Mori Mortazavi  
Robert Lynn Moxham  
Donald Nicol  
Mario Paventi  
Rochelle Pearson  
Bernard Pelletier  
Michael Perkinis  
Donald Phipps  
Stephen Price  
Garry Pringle  
Richard Puntis  
Paul Puodziunas  
Spencer Ramsshaw  
John Reddick  
Donald Robinson  
Dean Rogers  
Paul Roos  
Ed Rose  
Roy Rupert  
John Ryder  
Graeme Scott  
Ivan Severinsky  
Reginald Seyler  
Kevin Stevens  
Gregory Stott  
Roman Tykajlo  
Oleg Valeyev  
Richard Vantfoort  
Jaak Viirland  
David Wahl  
Phillip Walford  
Neil Westoll  
David Wetmore  
Peter Whittaker  
Myron Zurawsky



Association of Professional Geoscientists of Ontario  
8 King Street East, Suite 400  
Toronto ON M5C 1B5

