



THE ASSOCIATION OF EXPLORATION GEOCHEMISTS

P.O. Box 523, (Metropolitan Toronto), Rexdale, Ontario, M9W 5L4 Canada

President:

K. A. Lovstrom
AMAX Exploration Inc.
P. O. Box C, Belmar Station
Denver, Colorado 80226
U.S.A.

NEWSLETTER NO. 38

Vice Presidents:

J.H. McCarthy
U.S. Geological Survey
Federal Center, MS 912
Denver, Colorado 80225
U.S.A.

JANUARY 1982

L.G. Closs
Geology Department
Colorado School of Mines
Golden, Colorado 80401
U.S.A.

PERSONAL COLUMN

Information on Association Members is received from around the world. To keep your fellow members informed of your latest moves send a brief summary to the Rexdale office.

Secretary:

R.G. Garrett
Geological Survey of Canada
601 Booth Street
Ottawa, Ontario K1A 0E8
Canada

N.J.G. Graham has been recently appointed as Exploration Manager of Cluff Mineral Exploration (Zimbabwe) Ltd., based in Salisbury, Zimbabwe.

Treasurer:

I. Thomson
Ontario Geological Survey
77 Grenville Street
Toronto, Ontario M5S 1B3
Canada

A.R. Reid recently left Energy Fuels Nuclear and joined Anaconda Copper Company as the geochemist in the Exploration Research Group. He remains based in the Denver area.

Councillors:

1981-82
G.H. Allcott
L.A. Clark
W.K. Fletcher
S.J. Hoffman
S.E. Kesler
P.K. Theobald

A MESSAGE FROM THE PRESIDENT - K.A. Lovstrom

Continued growth has long been a major objective of the Association. Accompanying this growth must come new blood with new ideas and energy. Historically, election to Council has been the avenue along which to direct new dedicated members, together with the continued efforts of incumbent Councillors.

1981-83
R.C. Armstrong
E.H.W. Hornbrook
R.E. Lett
A.W. Rose
D.D. Runnells
F.M. Smith

A Committee of Council was established this past fall to nominate New Executive Officers and Ordinary Councillors for 1982-1983. Contained in this newsletter are the Executive appointments and Councillor nominations for election in May. During the past several years approximately one quarter of the Membership voted to elect Councillors to your Association. I find this a bit disturbing considering that over half our membership resides in North America. I, therefore, encourage all Voting members of the Association to review the list of nominees and vote in this year's election. A strong Council with membership support will certainly contribute to our continued growth.

Australian Regional Councillor:
R.H. Mazzucchelli

European Regional Councillor:
G.H.W. Friedrich

Best wishes for 1982.

Southern Africa Regional Councillor:
G.L. Coetzee

Brazilian Regional Councillor:
R.J.P. Brim

ADMISSIONS COMMITTEE REPORT

The following persons have been accepted for Membership in the Association by Council. The Association is pleased to welcome the new members.

VOTING MEMBERS

- Austria, V.B. Geologist, New Brunswick Dept. of Natural Resources, Fredericton, New Brunswick, Canada.
- Both, R.A. Reader in Economic Geology, Dept. of Economic Geology, University of Adelaide, Adelaide, S.A. Australia.
- DuToit, M.C. Senior exploration geochemist, Phelps Dodge Mining, Uppington, South Africa.
- Franceschi, G.A. Geologist/geochemist, U.N.O.T.C., Ouagadougou, Upper Volta.
- Gresens, R.L. Professor of Geological Sciences, University of Washington, Seattle, Washington, USA.
- Hoffman, E.L. Manager, Analytical Services, Nuclear Activation Services Ltd., Hamilton, Ontario, Canada
- Pride, D.E. Associate Professor, Dept. of Geology and Mineralogy, The Ohio State University, Columbus, Ohio, USA.
- Tordiffe, E.A.W. Lecturer in Geochemistry, Dept. of Geochemistry, University of the Orange Free State, Bloemfontein, South Africa.
- Young, R.D. Head of Metals Exploration, Billiton Indonesia, Jakarta, Indonesia.

AFFILIATE MEMBERS

- Broadbent G.C. Geologist with C.R.A. Exploration, Tasmania, Australia.
- Burke, K.E. Geochemist, Geological Survey, Paramaribo, Suriname.
- Fawkes, M.S. Project geologist with Seltrust Mining Corp., Kalgoorlie, Australia.
- Gavin, B. Geologist, E.K. Lehmann & Associates, Minneapolis, Minn. USA.
- Harpley, D.P. Geologist/Hydrologist, Dames & Moore, Johannesburg, South Africa.
- Maurette, B.J. Sales Representative, Chemex Labs, (Alberta), Calgary, Alberta, Canada.
- Moore, S.P. Exploration geologist with Nufuels Corp., Corpus Christie, Texas, USA.
- Myers, J.J. Exploration geologist, Marathon Resources, Denver, Co. USA.
- Silva-Muriel, J.R. Head Section Geochemistry at Industrial Minera, Mexico, S.A.
- Thomas, R.D. Geologist, Callahan Mining, Reno, Nevada, USA.

STUDENT MEMBERS

- Jaacks, J.A. Graduate student at the Colorado School of Mines, Colorado, USA.
Zuker, J.S. Graduate student at the Colorado School of Mines, Colorado, USA.

AUSTRALIAN ACTIVITIES - R.H. Mazzuchelli

An informal luncheon meeting of AEG Members and other interested persons was held during the recent 5th Australian Geological Convention in Perth. Of the 18 people present, 10 were from outside Western Australia. Future activities of the AEG in Australia was the main topic of discussion, and it was suggested that the AEG should hold a Regional Meeting in Perth in May 1983.

The Australian Geoscience Council finally came into being with an inaugural meeting in Adelaide on 11 September 1981. The AEG has been well represented throughout the formative stages of this organisation which owes its existence, in large measure, to the efforts of Gerry Govett and Jock Gilfillan. Fittingly, Gerry was appointed Vice President on the First Executive. The AEG is entitled to be represented by one member on the Council (normally the Australian Regional Councillor) but it is comforting to know that Gerry Govett will also be present wearing his other hat as a nominee of the Geological Society of Australia.

MAJOR EARTH SCIENCE PROJECTS IN CANADA

The Canadian Geoscience Council, on which the Association is represented by Bill Coker of Gulf Minerals Canada, Toronto, is soliciting new major earth science projects for funding in the 1980's.

Briefly, any project(s) should be applied to geoscience problems in Canada, and have a long-term benefit to Canada, it should also involve as many discipline groups as possible and combine the efforts of University, Government and Canadian industry geoscientists. Furthermore, the project(s) should adopt new approaches, not previously tried elsewhere. An example of such a project is Project Lithoprobe, being planned by the Canadian Lithosphere Committee.

Any group of geoscientists interested in preparing a proposal should contact:

Dr. J.P. Greenhouse,
Executive Director CGC
Dept. of Earth Sciences
University of Waterloo
Waterloo, Ontario N2L 3G1

The closing date for submissions is March 1, 1982.

NOMINATIONS FOR COUNCIL

Nominations for Council have been made to fill six vacancies which will arise at the next Annual General Meeting in May 1982. Ballots have been prepared and distributed to the Voting Membership. Results of the vote will be tabulated at the AGM, after which the new Councillors will be announced. It is important that Voting Members cast their ballots as soon as received. The ballots must be returned to the Association's permanent office in Rexdale (Toronto) by May 1, 1982, from there they will be transferred to Saskatoon for the AGM on May 13, 1982.

NEW EXECUTIVE FOR THE ASSOCIATION

At the Council Meeting held on December 14, 1981, members of the new Executive were elected for the year 1982-83.

J. Howie McCarthy of the U.S. Geological Survey, Denver, has been elected to the position of President of the Association.

L. Grahan Closs of the Geology Department, Colorado School of Mines, has been elected First Vice-President.

Robert G. Garrett of the Geological Survey of Canada, Ottawa, has been elected Second Vice-President.

Ian Thomson of Placer Development Ltd., Vancouver, has been re-elected to the post of Treasurer of the Association.

Ray E. Lett of Barringer Magenta Ltd., Rexdale, has been elected to the position of Secretary of the Association.

ANNUAL GENERAL MEETING 1982

The next Annual Genral Meeting of the Association will be held in conjunction with the 9th I.G.E.S. in Saskatoon. The meeting will be held immediately after the last technical session on Thursday, May 13, 1982. The Agenda for the AGM is as follows:

1. Minutes of the 1981 Annual General Meeting.
2. Matters Arising.
3. Nomination of Scrutineers for the Ordinary Councillor ballot.
4. President's Report.
5. Secretary's Report.
6. Treasurer's Report and Appointment of Auditors.
7. Admissions Committee Report.
8. Introduction of the 1982-83 Executive.
9. Announcement of Ordinary Councillor Elections.
10. Any Other Business.
11. Adjournment.

The President, K.A. Lovstrom, will deliver his address immediately following the adjournment of the meeting.

GOLD '81, VANCOUVER 1981

Council's decision to distribute a copy of the Gold'81 proceedings to all 1982 members of the Association was announced in last September's Newsletter.

Thanks to the hard work of the editor, Al Levinson, the Vancouver Organizing Committee, authors and critical readers the book is ready for printing. The University of Chicago Printing Department made the most attractive offer to the Organizing Committee, and printing is scheduled for mid-February. It is hoped that distribution of the 210 page hardcover volume containing 13 papers will begin in March 1982.

Should Association members wish to purchase a second copy prices are Can.\$13, and Can.\$18 (or US \$ equivalents) respectively for orders received before or after February 12, 1982. Cheques etc. should be made payable to Gold'81 and a self addressed mailing label forwarded with the order to:

Gold'81
c/o Cordilleran Section GAC
P.O. Box 398, Station A
Vancouver, B.C. CANADA V6C 2N2

FUTURE MEETINGS

9TH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM - May 12-14, 1982, Saskatoon

Registration forms were mailed to all members in mid-September. The Organizing Committee have received 70 papers for the 45 available presentations and the difficult task of programme selection is in hand. In terms of half day sessions the following are the themes: geothermal and hydrocarbons, uranium, lithogeochemistry, recent submarine sulphide deposits and their fossil equivalents, and two general sessions.

Please remember the March 15, 1982, pre-registration date, after that registration is \$15 more expensive. Also, if you are interested in any field trips you should register immediately as some are filling up fast.

10TH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM - August 28-September 2, 1983

Helsinki

The Helsinki symposium promises to be an exciting occasion as it will be the first joint meeting of the two international organizations committed to furthering exploration and applied geochemistry. The Scandinavian Geological Surveys are, through Alf Bjorklund, general chairman of the organizing committees, at the Geological Survey of Finland, organizing both the 10th I.G.E.S. and the 3rd Symposium on Methods of Geochemical Prospecting. The Symposia on Methods of Geochemical Prospecting are sponsored by the Working Group on Geochemical Prospecting of the International Association of Geochemistry and Cosmochemistry. Their first meeting was in Ostrova,

Czechoslovakia, 1979, and their second in Irkutsk, USSR, last September. The move of the I.G.E.S. biennial meetings to odd numbered years to avoid clashes with the International Geological Congresses, and the European locale, made such a joint meeting both feasible and attractive.

The themes for oral presentations will be: litho-geochemistry, new approaches, till geochemistry, and non-lithological factors affecting geochemical patterns. The possibility of a special session on bio-geochemistry is being investigated. Poster sessions on reconnaissance geochemistry, statistical methods and analytical techniques is also being planned. Eight pre-and post-symposium geological and geochemical field trips are being planned for Scandinavia, Greenland and possibly the USSR.

The first circular will be mailed in April, 1982. All Association members will receive copies. Any further details are available from:

Dr. A. Bjorklund
General Chairman of the Organizing Committees
Geological Survey of Finland
SF-02150 Espoo 15
FINLAND

PROSPECTORS AND DEVELOPERS ASSOCIATION - 50TH ANNIVERSARY - March 7-10, 1982, Toronto

Many of our Canadian members will be familiar with the P & D, the 1982 meeting may surpass all previous events. This meeting offers a unique opportunity for explorationists to gather prior to the 1982 northern hemisphere field season to discuss matters of common interest. In the formal papers I understand that there will be one paper tracing the early history of geochemical prospecting in Canada.

Further details from:

The Prospectors and Developers Association
159 Bay Street, Ste. 219-220
Toronto, Ontario
CANADA M5J 1J7

GOLD'82 - May 24-28, 1982, Salisbury

This symposium is being organized by the Geological Society of Zimbabwe, with the support of the Geology, Metallurgy and Mining Subs-Committee of the Scientific Council of Zimbabwe.

The five sections cover the distribution of gold in crustal rocks, its transport, mineral deposit types and gold exploration. The program includes both pre-and post-symposium field excursions. Copies of the first circular are available from:

The Organizing Secretary, Gold'82
Institute of Mining Research
P.O.Box MP 167
Mount Pleasant, Salisbury
ZIMBABWE

GEOCHEMICAL EXPLORATION IN DEEPLY WEATHERED TERRAIN - June 15-18, 1982, Perth, Australia

This four day short course/workshop will cater for geochemists and geologists who wish to be trained in, or become familiar, with CSIRO geochemical approaches to minerals exploration.

Topics will include: processes involved in the development of secondary haloes, multi-element path finder geochemistry in laterite terrain, water as a prospecting medium, the volatiles He and Hg, Pb isotopes in exploration, and mathematical treatment of multi-element data.

Inquiries and requests for the first circular should be sent to the course convenor,

Dr. R.E. Smith,
CSIRO
Div. of Mineralogy,
P.O.Box Wembley,
W.A. 6014
AUSTRALIA

PROSPECTING IN AREAS OF GLACIATED TERRAIN, 1982 - August 23-27, 1982, St. John's

The fifth symposium on prospecting in areas of glaciated terrain is being held at St. John's, Newfoundland, the first occasion the meeting has been held outside of Europe. The event is being sponsored by the Geology Division of the Canadian Institute of Mines and Metallurgy at the invitation of the IMM, London.

Two days of technical papers on geophysical, geochemical and geological exploration techniques in areas of past or present glaciated are planned. The remaining three days will be taken up with field trips in the St. John's and Deer Lake areas. The visit to Deer Lake in Central Newfoundland will include visits to some of the base metal deposits of the region.

For additional information and the first notice write to:

Peter H. Davenport
Newfoundland Dept. of Mines and Energy
P.O.Box 4750
St. John's, Newfoundland
CANADA A1C 5T7

1984 MINI SYMPOSIUM

The Symposium Committee is soliciting for suggestions of venue and/or offers for hosting the 1984 Mini Symposium in North America.

Please send any suggestions to,

Dr. L. G. Closs,
Dept. of Geology
Colorado School of Mines,
Golden, Colorado, USA 80401

A LEXICON OF EXPLORATION GEOCHEMISTRY

This is a reminder to have another look at page 2 of the September 1981 Newsletter, No. 37. So far the Toronto office has had very little response to Ian Thomson's offer to coordinate a multilingual lexicon. Those of you with bi- and multi-lingual experience - your help is needed to help us all in communicating geochemical concepts. This is a unique opportunity for the Association to express its international base in over 50 countries, don't let us miss it.

HANDBOOK OF GEOCHEMICAL EXPLORATION - Vol. 1

Some 110 or so members have taken Elsevier up on their offer of Volume 1 of the Handbook, Analytical Methods in Geochemical Prospecting by W.K. Fletcher. By the time you will read this the closing date for the special offer, December 31, 1981, will have passed and the order will be on its way to Elsevier in Amsterdam. We do not yet know if the volume of the order marks significant interest in Elsevier's eyes. We hope it does, so that similar offers for the subsequent volumes can be made.

FROM THE SECRETARY'S OFFICE - Bob Garrett

Thank you for your response to the 1982 call for dues. Ines Filicetti in the Toronto office tells me that response has been very good - your prompt attention to the matter is a real help to the Treasurer and your Association, apart from helping to ensure the smooth delivery of the Journal to you.

For those of you whose dues we have not received, you will find a reminder notice enclosed. If you recently mailed them, please ignore the notice, if however, you mailed them more than two months ago please let the office know, with details of the methods of payment - something went wrong! As you know International Money Orders, UNESCO coupons, International Postal Orders and cheques drawn on North American banks are all acceptable. For further details, including those for paying directly to the Association's bank, please see page 6 of the September 1981 Newsletter.

Plans for the 1982 membership list are in hand. The format will be the same as for the 1980 booklet, with the addition of the year a member first joined and their membership class. This last addition is to help prospective Voting Members find Voting or Honorary Members who know of their work and would be willing to act as referees for them. Barring any computer or printing problems the new membership list, containing the names of all paid up 1981 or 1982 members, will be mailed with the March Newsletter.

One final note, many of you use the dues notice to write short notes re the Journal or publications to Ines Filicetti in the Toronto office. Could you write them on a separate sheet of paper, nothing formal is required, except to add your name and address. This would help Ines tremendously, especially at a time which is her busiest in the year.

JOURNAL NEWS - Eion Cameron

The following is a list of forthcoming papers for the Journal. They are given in the order of their transmission from the editorial office to Elsevier.

- Tessier, A., Campbell, P.G.C. and Bisson, M. Relationships of particulate trace metal speciation to grain size in stream sediments and their significance to geochemical exploration.
- Kronfeld, J. and Zafir, H. The possibility of using desert palms in hydrological reconnaissance prospecting for uranium.
- Taylor, G.F. and Sylvester, G.C. Analysis of a weathered profile of sulfide mineralization at Mugga Mugga, Western Australia.
- Rose, A.W. Mineral adequacy, exploration success, and mineral policy in the United States.
- Waples, D.W. Phosphate-rich sedimentary rock: significance for organic facies and petroleum exploration.
- Zielinski, R.A. Uraniferous opal, Virgin Valley, Nevada: Conditions of formation and implications for uranium exploration.
- Miller, W.R., Ficklin, W.H. and Learned, R.E. Hydrogeochemical prospecting in the Tropical-Marine climate of Puerto Rico.
- Filipek, L.H., Chao, T.T. and Theobald, P.K., Jr. Comparison of hot hydroxylamine hydrochloride and oxalic acid leaching of stream sediment and coated rock samples as anomaly enhancement techniques.
- Dakshini, K.M.M., Roonwal, G.S. and Gupta, S.K. Heavy metal accumulation by *Vernonia Cinerea* (Linn.) Less. (Asteraceae).
- Philp, R.P. and Crisp, P.T. Surface geochemical methods used for oil and gas prospecting - a review.

RECENT PAPERS ON EXPLORATION GEOCHEMISTRY

This list comprises titles that have appeared in major publications since the compilation present in Newsletter No. 37. Journals routinely covered and abbreviations uses are as follows: Economic Geology (EG); Geochimica et Cosmochimica Acta (GCA); The USGS Professional Paper (USGS PROF. P); circular (USGS CIR); and Open File Report (USGS OFR); Geological Survey of Canada Papers (GSC PAPER) and Open File Report (GSC OFR); Bulletin of the Canadian Institute of Mining and Metallurgy (CIM BULL); Transactions of Institute of Mining and Metallurgy, Section B: Applied Earth Sciences (Trans IMM). Publication less frequently cited are identified in full. Compiled by L. Graham Closs, Colorado School of Mines, Member AEG Bibliography Committee.

Alexander, R. et al. 19 . Geochemical correlation of Windalia oil and extracts of Winning Group (Cretaceous) potential source rocks, Barrow Subbasin, Western Australia. Assoc. Am. Petrol. Geol. Bull. 65(2): 235-250.

Averill, S.A. and Thomson, I. 1981. Reverse circulation rotary drilling and deep overburden geochemical sampling in Marter, Catherine, McElroy, Skead, Gauthier and Hearst Townships. District of Timiskaming. Ontario Geological Survey. OFR 5335. 276 p.

Bentor, Y.K. (Ed). 1980. Marine Phosphorites - Geochemistry, Occurrence, Genesis. A Symposium at the Xth International Congress on Sedimentology in Jerusalem, Israel. Soc. Econ. Paleont. and Min. Sp. Pub. 29. 249 p.

Bertenshaw, M.P. 1981. Hydrogeochemical indications of mineral deposits in the limestones of Derbyshire. Trans. IMM. 90: B167-173.

Beyth, M. and McInteer, C. 1981. Indications for U-Ni-Cu mineralization in the Mt. McKinley NTMS quadrangle: evaluation of hydrogeochemical and stream sediment reconnaissance data. Trans. IMM. 90: B163-166.

Boissavy-Vinau, M. and Roger, G. 1980. The TiO_2/Ta ratio as an indicator of the degree of differentiation of tin granites. Mineralium Deposita 15: 231-236.

Butler, C.L. 1981. Fire assaying for home use. Western Miner 54(10): 73-75.

Capdecemme, H. and Sauvan, P. 1981. An introduction to the present knowledge of the Rouez massive sulfide deposit: geochemical exploration results. Chronique de la Recherche Miniere. 49(458): 50-61.

Cathelineau, M. 1981. Caracterisations mineralogique, geo-chimique et structurale de l'encaissant granitique et metamorphique du gisement d'uranium du Chardon. Bull BRGM. Section II: 291-300.

- Cole, M.M. 1981. Geobotanical expression of orebodies. Trans. IMM. 90: B136-140.
- Conwell, C.N. 1981. Fine gold recovery in a placer operation. Western Miner. 54(9): 36-40.
- Davis, G.R. 1981. Geologists in the minerals industry (presidential address). Trans. Imm. 90: B93-102.
- Derry, D.R. 1980. A Concise World Atlas of Geology and Mineral Deposits. Mining Journal Books. 110 p.
- Erickson, R.L. et al. 1981. A favorable belt for possible mineral discovery in subsurface Cambrian rocks in Southern Missouri. EG 76(4): 921-932.
- Evans, D.L. 1981. Laterization as a possible contributor to gold placers. Eng. Min. J. 182(8): 86-91.
- Finlow-Bates, T. and Stumpf, E.F. 1981. The behavior of so-called immobile elements in hydrothermally altered rocks associated with volcanogenic submarine exhalative ore deposits. Mineralium Deposita. 16(2): 319-
- Fortescue, J.A.C. 1981. Environmental and exploration geochemistry. Western Miner. 54(10): 15-21.
- Fortescue, J.A.C. et al. 1981. Multidisciplinary followup of regional pH patterns in lakes north of Lake Superior. District of Algoma. Ontario Geological Survey OFR 5342. Part I. 134 p.
- Fortescue, J.A.C. et al. 1981. Multidisciplinary followup of regional pH patterns in lakes north of Lake Superior. District of Algoma. Ontario Geological Survey OFR 5342 Part II. (Information and Data Listing for Lakes Studied) 366 p.
- Fyon, J.A. and Crocket, J.H. 1981. Gold exploration in the Timmins area using field and lithogeochemical characteristics of carbonate alteration zones. Ontario Geological Survey OFR 5339. 172 p.
- Gaciri, S.J. and Ineson, P.R. 1981. Hydrogeochemical lead-zone-copper anomalies on the Isle of Man. Trans. IMM 90: B120-125.
- Gale, N.H. et al. 1981. The lead and strontium isotope geochemistry of metalliferous sediments associated with Upper Cretaceous ophiolitic rocks in Cyprus, Syria and the Sultanate of Oman. Can. J. Earth Sci. 18(8): 1290-1302.
- Gundobin, G.M. et al. 1980. Gold and silver at the late-magmatic and post-magmatic stages of the granitoid intrusions formation. Geology and Geophysics. 11(251): 133-137.

- Hudson, T. et al. 1981. Geochemistry of intrusive rocks associated with molybdenite deposits, Ketchikan Quadrangle, southeastern Alaska. EG 76(5): 1225-1232.
- Ivanov, V.V. and Spomior, Yu. N. 1980. Petrographic-geochemical criteria for estimating the scales of tin-ore mineralization during preliminary metallogenic investigations. Geochem. Intern. 17(2): 148-158.
- Kesler, S.E. et al. 1981. Geology and geochemistry of sulfide mineralization underlying the Pueblo Viejo gold-silver oxide deposit, Dominican Republic. EG 76(5): 1096-1117.
- Koch, G.S., Jr. et al. 1981. Uranium resource assessment through statistical analysis of exploration geochemical and other data. EG 76(5): 1056-1066.
- Krendelev, F.P. et al. Contents and behavior of gold in natural waters of Transbaikalia. Geology and Geophysics 11(251): 85-
- Lewis, A. 1981. Ore Deposits Research. Eng. Min. J. 182(7): 68-77.
- Maksimov, S.P. et al. 1981. A new geochemical test for studying formation conditions of hydrocarbon accumulations. Intern. Geol. Rev. 23(8): 983-988.
- Mutschler, F.E. et al. 1981. Granite molybdenite system. EG 76(4): 874-897.
- Perel'man, A.I. 1980. Paleogeochemical landscape maps. Geochem. Intern. 17(1): 39-70.
- Pye, E.G. and Roberts, R.G. 1981. Genesis of Archean, volcanic-hosted gold deposits (Symposium proceedings). Ontario Geological Survey. MP 97. 175 p.
- Reimann, C. and Stumpfl, E.F. 1981. Geochemical setting of strata-bound stibnite mineralization in the Kreuzeck Mtns. Austria. Trans. IMM 90: B126-132.
- Russell, N. et al. 1981. Geology and geochemistry of the Pueblo Viejo gold-silver oxide deposit, Dominican Republic. Trans. IMM 90 B153-162.
- Rychkun, E.A. and Houlding, S.W. 1981. Mineral prospect evaluation by computer analysis and data display. Western Miner. 54(9): 20-28.
- Shifan, L. et al. 1980. Geochemical characteristics of gossan related to siderite deposits in carbonate strata, Western Guizhou. Geochimica 4: 332-343.

ANNUAL GENERAL MEETING

The Association of Exploration Geochemists
will hold their
Annual General Meeting
following the last technical paper of the day
at the
9th International Geochemical Exploration Symposium
in the
Centennial Auditorium, Saskatoon, Saskatchewan
at
4:30 pm, Thursday May 13, 1982



THE ASSOCIATION OF EXPLORATION GEOCHEMISTS

P.O. Box 523, (Metropolitan Toronto), Rexdale, Ontario, M9W 5L4 Canada

President:

K. A. Lovstrom
AMAX Exploration Inc.
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ELECTION OF ORDINARY COUNCILLORS

Vice Presidents:

J.H. McCarthy
U.S. Geological Survey
Federal Center, MS 912
Denver, Colorado 80225
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Colorado School of Mines
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601 Booth Street
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Treasurer:

I. Thomson
Ontario Geological Survey
77 Grenville Street
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1981-82
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Australian Regional Councillor:
R.H. Mazzucchelli

European Regional Councillor:
G.H.W. Friedrich

Southern Africa Regional Councillor:
G.L. Coetzee

Braslian Regional Councillor:
R.J.P. Brim

Eleven Voting Members of the Association have been nominated for Ordinary Councillors for 1982-84 and 1982-83 periods. Six incumbent Ordinary Councillors will retire at the upcoming Annual General Meeting in May 1982. Consequently, Members are asked to cast six votes by erasing five names of candidates you do not wish to vote for from the Balloting List. The persons whose names are not erased from the Balloting List will each receive one vote in the Balloting.

Any Balloting List will be deemed invalid if the number of names not erased therefrom shall be more than six.

Limited information on each candidate is included on the reverse page.

Voting Members should not sign or otherwise identify themselves on the Balloting List. Place the completed Ballot in the small envelope marked "AEG Ordinary Councillor Ballot" and seal. Place this envelope in the large envelope bearing the permanent address of the Association, seal, stamp and mail to arrive in Rexdale not later than May 1st, 1982.

J.L. Wahl. Member since 1978. Five years experience in the mineral exploration industry, currently with Kerr Addison Mines. Member of the 1976 Appalachian Regional Symposium Organizing Committee and co-editor of the Field Excursion Guidebook.

Y.T. Maurice. Member since 1974. Nine years experience teaching in University, Laval, and as a regional geochemist with the Geological Survey of Canada, Ottawa. Member of the AEG Publications Committee 1978-79.

S.E. Kesler. Member since 1970. Fifteen years experience in industry and university, currently at the University of Michigan, Ann Arbor. Ordinary Councillor, 1980-82, and Chairman of the Student Prize Committee.

W.K. Fletcher. Member since 1971. Thirteen years experience in industry and university, currently at the University of British Columbia. Ordinary Councillor 1973-74 and 1979-82, member of the 5th I.G.E.S., Vancouver, Organizing Committee and co-editor of the symposium volume.

G.H. Allcott. Member since 1974. Twenty five years experience in industry and government, working for the U.S.G.S. in both Saudi Arabia and the U.S. Currently Chief of the Branch of Exploration Research. Ordinary Councillor, 1980-82, and Chairman of the Standards Committee, 1974-82.

V.J. Sopuck. Member since 1979. Five years experience in government and industry developing and applying uranium geochemical exploration methods. Currently Chairman of the 9th I.G.E.S., Saskatoon, Organizing Committee.

R.G. Jackson. Member since 1973. Seven years experience in the mineral exploration industry with St. Joseph Exploration, and latterly as chief geochemist for Sulpetro Minerals, with responsibilities for programme development.

W.G. Goodfellow. Member since 1973. Six years experience as a post-doctoral fellow and as a regional geochemist with the Geological Survey of Canada. Member of the 1976 Appalachian Regional Symposium Organizing Committee and co-editor of the Field Excursion Guidebook.

L.A. Clark. Member since 1973. Twenty five years experience in university and industry, currently chief geologist for the Saskatchewan Mineral Development Corporation. Ordinary Councillor, 1980-82, AEG representative on the Canadian Geoscience Council 1978-80, and member of the 9th I.G.E.S., Saskatoon, Organizing Committee.

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N.G. Lavery. Member since 1970. Thirteen years experience in mineral and geochemical exploration. Currently working as a Research Associate with Exxon Minerals Co., Houston, on worldwide method development problems. Member of the New Membership Committee.