



# THE ASSOCIATION OF EXPLORATION GEOCHEMISTS

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

## NEWSLETTER

### NO. 49

September, 1984

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*Southern Africa Regional Councillor:*  
**G.L. Coetzee**

*Brazilian Regional Councillor:*  
**R.W. Lewis Jr.**

### 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 and please indicate that this information is intended for the newsletter.

Kim H. Esbensen has joined the Norwegian Computing Center as a research scientist where he will liaise between areas of geology and statistical data analysis. He can be contacted at the Norwegian Computer Center, Box 335, Blindern, N-0314, Oslo 3, Norway.

William J. Pincus has resigned from FMC Corp. Denver and is currently occupied as a private consultant involved in mineral exploration and economic studies. He can be contacted at 2734 West 35th Avenue, Denver, CO. U.S.A. 80211

### THE PRESIDENT'S MESSAGE - - - Bob Garrett

The last few months have seen many of us in the field and travelling, and for the Executive and Association Office it is the quietest time of year. However, this year, as you will read in the Newsletter there has been some important activity.

For many years now the education and training of exploration and applied geochemists has been a major concern to those active in the profession. However, the fact remains that most of the exploration geochemistry surveys undertaken in industry are done so by mineral explorationists and geologists who have had little or no formal training in exploration geochemistry. Not that formal training is everything, but it does help to inculcate the principles behind our science and make the potential practitioner aware of the successes, and pitfalls. Council has been active in two areas, firstly a distinguished lecturer series, and secondly on the matter of short courses about which I hope I shall have more news later this year. The idea of a distinguished lecturer

series has been discussed for many years now in Council, finally under Norm Lavery's direction we are going to have a trial series in North America. The lectures are targeted on universities with economic geology courses, where many of the future geochemical practitioners are now being trained. If the initial series is judged to have been successful we will continue, both in North America and, we hope, in other parts of the world where the Association is active.

The International Geological Congress was held in Moscow, U.S.S.R., in August and it provided the opportunity for a continuation of the discussions that commenced between the Association and the Working Group on Methods of Geochemical Prospecting of the IAGC at Helsinki last year. We are making progress on several projects on the geochemical "finger-prints" of different ore deposit types and a multilingual lexicon. The lexicon is an important project for those geochemists involved in international work, it will also provide a focus for the clearer and more concise definition of terms in our mother tongues. An effort which would not be remiss as different terms quite clearly mean different things to different people if you listen to people talking at our symposia.

During the summer Council received a formal proposal from the French organizing committee for the 12th IGES. I am happy to report to you that Council accepted the proposal for a joint meeting with the IAGC Working Group in Orleans in the spring of 1987. Dr. E. Wilhelm of the BRGM is chairman of the committee, and I am sure you all join with me in wishing him and the committee every success in their undertaking.

I would like to close by urging you to participate in your Association. The committees and working groups need members. If we all do a little we will all do a lot. Lastly, we are asking for nominations for Councillors for the 1985-87 term. It is your opportunity to put forward the names of geochemists who could contribute to the Association and profession, and our opportunity to get new blood into Council. Your participation helps keep the Association dynamic and relevant.

I wish you every success in your work, and look forward to being able to give you more news of our activity in December.

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ADMISSIONS COMMITTEE REPORT

Names of the following candidates have been recommended by the Admissions Committee and have been approved by Council. According to the Association's by-laws the names of candidates are to be published for consideration by the membership. If you wish to comment on any candidate, please do so in writing to the secretary within 60 days.

At the last Council Meeting 14 Voting Members (listed below), 87 Affiliate Members and 14 Student Members were approved by Council. A list of these Affiliate and Student Members will be published in our next Newsletter.

VOTING MEMBERS

- Allen, M.S. (Transfer) Geologist with U.S.G.S., Arvada, Colorado, U.S.A.
- Amor, S.D. (Transfer) Geochemist, Sherrit Gordon Mines Ltd., Lynn Lake, Manitoba, Canada.
- Alnahdi, F.A. Head of Geochemistry Department, King Abdulaziz University, Jeddah, Saudi Arabia.
- Bill, E.A. Geochemist with the Geological Survey of Zambia, Lusaka Zambia.
- Dunkley, P.N. Geochemist with the British Geological Survey, Overseas Division, Keyworth, Nottingham, England.
- Friberg, R.S. Consulting geologist, self employed, Reno Nevada, U.S.A.
- Johnson, M.D. Geologist, Homestake Mining Corp., Reno, Nevada, U.S.A.
- Hellman, P.L. Senior Geochemist, Minerals Division CSR Ltd., Sydney, New South Wales, Australia.
- Maassen, L.W. Geochemist, Los Alamos National Laboratory, Los Alamos, New Mexico, U.S.A.
- Maybin, III, A.H. Chief of Mineral Resources, South Carolina Geological Survey, Columbia, South Carolina, U.S.A.
- Northrop, H.R. (Transfer) Chemist/Geochemist, U.S.G.S., Denver, Colorado, U.S.A.
- Plant, J.A. Senior Principal Scientific Officer, British Geological Survey, London, England.
- Tan, Li-P. (Transfer) Professor of Exploration Geochemistry, King Abdulaziz University, Jeddah, Saudi Arabia.
- Tucker, J.D. (Transfer) Production geologist, Mobil Uranium/Minerals, Alice, Texas, U.S.A.

CALENDAR OF COMING EVENTS

The following calendar of forthcoming Symposia and Meetings on topics directly or indirectly related to exploration geochemistry has been compiled to aid members in planning for these events. If you are aware of any meetings not listed in the Calendar please write the Association's office with information.

October 1 - 5, 1984

Remote Sensing of the Environment (18th International Symposium), Paris, France (Environmental Research Institute of Michigan, P. O. Box 8618, Ann Arbor, MI 48107, U.S.A.).

October 29 - November 2, 1984

Exploration Geochemistry Symposium Rio de Janeiro, Brazil, Technical and Scientific Committee for Geochemistry, Box 2432, Rio de Janeiro, RJCEP 20,001, Brazil .

November 5 - 8, 1984

GEOLOGICAL SOCIETY OF AMERICA (Annual Meeting), Reno, Nevada, U.S.A. (S.S. Beggs, Geological Society of America, P.O. Box 9140, 3300 Penrose Place, Boulder, CO 80301 U.S.A.).

November 15, 1984

Workshop of Computer Applications, Holiday Inn Harbourside, Vancouver, British Columbia, Canada (See page 6 for details.)

November 19 - 23, 1984

12th WORLD MINING CONGRESS, New Delhi, India (Organizing Committee Institute of Engineers, 8 Gokhale Road, Calcutta 700 020, India).

December 2 - 6, 1984

SOCIETY OF EXPLORATION GEOPHYSICISTS (54th Annual Meeting, Atlanta, Georgia, U.S.A. (3 Hyden, SEG, Box 3098, Tulsa, OK 74101, U.S.A.).

December, 1984

NORTHWEST MINING ASSOCIATION ANNUAL CONVENTION, Spokane, WA U.S.A. (633 Peyton Building, Spokane, Washington 99201 U.S.A.).

1985

March 3 - 6, 1985

Prospectors and Developers Convention, Toronto, Ontario, Canada.

March 24 - 30, 1985

Workshop on Geochemical Exploration in Tropical Rain Forests (Manaus, Brazil. (R. W. Lewis, Rua Aguaraiaba 86, Bonsucesso - Rio de Janeiro RJ CEP 21.061, Brasil)

April 1985

PROSPECTING IN AREAS OF DESERT TERRAIN (Conference), Rabat, Morocco.  
(Conference Office, IMM, 44 Portland Place, London W1N 4BR, U.K.)

April 21 - 25, 1985

CANADIAN INSTITUTION OF MINING AND METALLURGY, 87th Annual Meeting,  
Vancouver, Canada.

April 15 - 19, 1985

Second International Symposium on Analytical Chemistry in the Exploration,  
Mining and Processing of Materials, Pretoria, South Africa. (See page 7  
for details.)

April 28 - May 1, 1985

Eleventh International Geochemical Exploration Symposium Toronto, Canada.  
(See page 6 for further details.)

July 10 - 12, 1985

FIRST CONFERENCE OF THE GEOLOGICAL SOCIETY OF TRINIDAD AND TOBAGO (W. Ali,  
c/o Geological Department, Trinmar Ltd., Point Fortin, Trinidad, West Indies).

July 27 - August 7, 1985

FOURTH INTERNATIONAL PLATINUM SYMPOSIUM, Stillwater, Mont.; Toronto, Canada,  
Sudbury, Canada (A.J. Nordrett, 4th IPS, Department of Geology, University  
of Toronto, Toronto, Ontario, Canada M5S 1A1).

July 28 - August 2, 1985

8th INTERNATIONAL CLAY CONFERENCE, Denver, Colorado. Sponsored by AIPEA  
(Dr. A. J. Herbillon, Groupe de Physico-Chimie Minerale et de Catalyse,  
Univ. Catholique de Louvain, Place Croix du Sud 1, B-1348 Louvain-La-Neuve,  
Belgium).

September 8 - 13, 1985

HYDROGEOLOGY IN THE SERVICE OF MAN (J. Day, Maclean Bld. Crownash Giffard, U.K.  
OX10 8BB)

September 15 - 21, 1985

FIRST INTERNATIONAL CONFERENCE ON GEOMORPHOLOGY; Geomorphology, Resources,  
Environment and the Developing World (British Geomorphology and Research  
Group, University of Manchester, Manchester, England, M13 9PL, U.K.).

October 14 - 17, 1985

GEOLOGICAL SOCIETY OF AMERICA (Annual Meeting), Boston, Mass., U.S.A.  
(S.S. Beggs, G.S.A., P. O. Box 9140, 330 Penrose Place, Boulder, CO 80301 USA)

1986

July 7 - 11, 1986

REGIONAL MEETING OF THE ASSOCIATION OF EXPLORATION GEOCHEMISTS - GEOLOGICAL SOCIETY OF SOUTH AFRICA GEOCONGRESS (see enclosed First Circular for details).

August 11 - 15, 1986

FOURTH INTERNATIONAL KIMBERLITE CONFERENCE PERTH, WESTERN AUSTRALIA  
(J.D. Lewis - Secretary, 4th IKC, Geological Survey of Australia, Mineral House, 66 Adelaide Terrace, Perth, W.A. 6000.

FUTURE MEETINGSCOMPUTERS IN EXPLORATION WORKSHOP - VANCOUVER, CANADA (Update)

November 15, 1984

The Cordilleran Section and Mineral Deposits Division of the Geological Association of Canada is sponsoring a one-day workshop on the topic of COMPUTERS IN EXPLORATION. This workshop will be of interest to all members of the mining community and especially those based in western North America. Papers will be given on topics comprising hardware considerations, management, geochemistry, geophysics, field microcomputers, mining and computer assisted drafting, information data bases and the practical use of computers in a company. Exhibition Booths are available at \$160/booth (8' x 8'). Registration (before November 1st) will be \$15.00 GAC members, \$20 to non GAC members. Application forms and further details are available from

BARNEY HERRING  
TETRAD COMPUTER APPLICATIONS LTD.  
1445 West Georgia Street  
Vancouver, British Columbia, Canada  
V6G 2T3  
(604) 685-2295

ELEVENTH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM, Toronto, Canada

April 28 - May 2, 1985

Update from W. Coker, Co-Chairman, Symposium Organizing Committee

Even though the September 1st deadline has passed please fill in and return the second circular for the 11th IGES distributed with the July Newsletter. To date we have had a good response to the circular and there is a high interest in the workshops and field trips. If you are interested in participating in these events, please complete and return the circular. The more input we have from delegates, the better we can plan an interesting and stimulating program for delegates and keep costs to a minimum. The Symposium organizing committee plan to distribute a third circular and registration material with the December Newsletter. Please note that completed questionnaires and all enquiries should be directed to:

The Organizing Committee  
11th International Geochemical Exploration Symposium  
P. O. Box 523 (Metro Toronto)  
Rexdale, Ontario, Canada  
M9W 5L4

ORGANICS AND ORE DEPOSITS

April 25 - 26th, 1985

The Denver Region Exploration Geologists Society announces its 1985 Symposium on Organics and Ore Deposits to be held from April 25th to April 26th at the Regency Inn, Denver, CO. This Symposium examines the nature, occurrence and interaction of organic matter and organisms with metallic mineralization with an emphasis on exploration, precious metals and ore genesis. Further information can be obtained from:

K. Stege  
Stege Communications  
7444 Queen Circle  
Arvada, Colorado 80005, U.S.A.  
(303) 424-0505

FOURTH INTERNATIONAL PLATINUM SYMPOSIUM

July 27 - August 7, 1985

The fourth in the series of International Platinum Symposia, sponsored by the Society of Economic Geologists, will be held in Canada and the United States in July-August 1985. The meeting will consist of three days of technical sessions, held in the University of Toronto, and succeeded by field trips. Further information can be obtained from:

Professor A. J. Nordrett  
General Chairman, 4th IPS  
Dept. of Geology, University of Toronto  
Toronto, Ontario, Canada  
M5S 1A1

SECOND INTERNATIONAL SYMPOSIUM: ANALYTICAL CHEMISTRY IN THE EXPLORATION, MINING AND PROCESSING OF MATERIALS  
PRETORIA, SOUTH AFRICA

April 15 - 19, 1985

The object of the symposium is to highlight the importance of analytical chemistry in the production of materials from the initial stages of exploration and assessment of ores to the beneficiation and, finally, to the refined product. The aim is to bring together from all over the world scientists specializing in the various fields of analytical chemistry to exchange information, to discuss progress on the analytical sciences and to explore future developments. Topics covered by the Symposium include atomic absorption spectrometry, inductively coupled plasma techniques, X-ray spectrometry and diffraction, neutron activation, ion beam analysis, wet chemistry, reference materials, analysis of nuclear materials and analysis of the environment. The Symposium should be of interest to anyone working in the fields relating to the determination of the quality of materials. Further details may be obtained from:

The Symposium Secretariat S-328  
CSIR  
Box 395  
Pretoria 0001  
South Africa  
Tel: (012) 86-9211 x 4412 (Mrs. Meyer)  
x 2077 (Mrs. Rhodes)

International + 271286-9211  
Telex 3-31312 SA

FROM THE SECRETARY'S OFFICE -- Ray Lett

Due to the outstanding success of the Reno Regional Geochemical Symposium and in particular the efforts of Chet Nichols and his organizing committee, membership in the Association has reached a record of 1422. The excellence of the technical meetings such as the Reno Symposium, sponsored by the Association depends not only on the dedication of Organizing Committee members, but also on the ability of the Association to readily provide the necessary supporting seed funds. Prompt payment of your annual membership dues by January 1st, 1985, is therefore essential to enable us to implement long term financial planning including sponsorship of Symposia. The 1985 Dues Notice is enclosed with this Newsletter and you will see that one important change has been made to the mode of payment. In future all payments for membership dues and Association publications must be made in United States Currency only. Further details of this change are explained in a notice from the Treasurer's Office. I would also remind those members (119 at the last count) who have still to pay their 1984 membership dues to please do so as soon as possible.

As you will see from the announcement carried by this Newsletter, plans for the 11th IGES are on schedule and the Organizing Committee will distribute the third and final Circular with the December Newsletter. Following our normal practice the Association's Annual General Meeting will be held during the Symposium at which the new Executive will be introduced and six ordinary Councillors for the 1985-87 term are elected. Candidates for Council may be nominated by either a resolution passed by Council or by a written nomination from six Voting Members submitted to the Secretary before November 1st, 1984. I have included a nomination form with this Newsletter and I would strongly suggest that members interested in a greater participation in the Association affairs seriously consider nomination as Councillor.

The Association plans to sponsor a Distinguished Lecturer Series during the 1985-1986 academic year. This is a new venture organized by the Association and will involve visits by a Distinguished Lecturer to three United States schools in the fall and three Canadian schools in the spring. Future Series may be extended to include countries outside North America. Members are invited to nominate a person as Distinguished Lecturer on the form included with this Newsletter and return the nomination to Norman Lavery by December 1st, 1984.

Finally I would draw your attention to several items in this Newsletter including the Multilingual Lexicon for Exploration Geochemistry, New Supplement to the Bibliography and the Directory of Developing World Geochemical Laboratories. If you are interested in these topics, please do respond with your support.

FROM THE OFFICE OF THE TREASURER -- R. JacksonIMPORTANT NOTICE

On September 6, 1984 at a Council meeting of the AEG, a motion was passed that all future payment of dues and publications be submitted in U.S. currency only. Previous to this motion, Canadian currency was also accepted. The reason for this change is to simplify our accounting procedures. For Canadians who have previously remitted their dues in Canadian funds at the going exchange rate, it is sufficient to write a personal cheque placing the notation, U.S., beside the dollar sign and the word dollar. The bank will automatically debit your account the equivalent in Canadian currency.



I would also like to bring to members' attention, particularly those outside the United States and Canada, that the best and most reliable way of making their dues payment or ordering publications is to obtain a bank draft in U.S. currency written against an international bank or to obtain an international money order. In the past, this office has encountered difficulty in processing cheques written against less well known banks. The charge by the international banking service to process one of these cheques has frequently approached its face value. In order to avoid having to return cheques or request additional payments, we ask that you obtain an international money order or bank draft.

I would like to take this opportunity to encourage all members to renew their membership for 1985. Because of your support, we have been able to maintain our dues at current levels while expanding the benefits of membership. A number of projects are underway which should bear fruit in 1985. These include the first presentation of a student research prize, the establishment of a distinguished lecturer series, and possible establishment of a centralized office facility and information centre.

### REGIONAL REPORTS - AUSTRALIA

#### ACTIVITIES -- R. H. Mazzucchelli

There has been little in the way of formal activity by the Association in Australia since the Australian Regional Meeting was held in May 1983. As a follow-up to that meeting, an informal survey has been conducted among Tertiary Education Institutions in Australia to determine the status of teaching in exploration geochemistry. This was prompted by concern at the meeting that the growing importance of geochemistry in mineral exploration programmes might not be matched by the geochemical content in Tertiary Institution curricula. The responses obtained were somewhat reassuring although the situation is probably far from ideal, especially when one looks at figures from a survey recently published by the Australian Geoscience Council, which indicate that there are some 53 geochemists engaged in industry and consulting in Australia (both hydrocarbon and minerals) compared with 408 geophysicists and 1990 geologists. A more detailed analysis of the situation will be submitted in a future Newsletter.

Also prompted by the Australian Regional Meeting is a proposal currently under investigation to offer an advanced workshop course in exploration geochemistry through the Australian Mineral Foundation. If all goes well, this will be publicized during 1985.

During the year The Association was invited to make a submission to a major review of the CSIRO Division of Mineralogy, which in recent years has developed the most active programme of research in geological exploration in Australia. A number of AEG members contributed their views to the written submission which eventuated and further input was provided orally when The Review Committee visited Perth. The final outcome of The Review is still awaited but we are confident that the geochemical program will survive.

The A.E.G. has been well represented at meetings of the Australian Geoscience Council. During the year, Professor Gerry Govett occupied the Chair whilst John Gilfilian was Secretary on the Executive. Ordinary Council meetings were attended alternately by Tony Robbins and myself.

In April a visit by Journal Editor-in-Chief, Eion Cameron, to Western Australia provided an excuse for an informal but enjoyable get-together of Perth members of A.E.G. The next major gathering is likely to be at the 7th Australian Geological Convention to be held in Sydney in August 1984. Gerry Govett and Peter Bradshaw have organized a technical session on behalf of the A.E.G. on the topic "Geochemical Exploration for Gold Mineralization".

For those wondering about the Proceedings of the Australian Regional Meeting, the editors advise with profound relief that the edited manuscripts are now safely in the hands of Elsevier and publication should not be long-delayed.

#### SEVENTH AUSTRALIAN GEOLOGICAL CONVENTION - P.M.D. Bradshaw

As part of the Seventh Australian Geological Convention held in Sydney from August 26-31 Professor Gerry Govett organized a half-day session on geochemistry on behalf of the Association of Exploration Geochemists. The programme is attached. The Convention as a whole was attended by over 1,000 people and had five concurrent sessions. The geochemical session was well received and was attended by in excess of 200 people. Gerry was overseas (in Russia and Finland) during the Convention and asked me to co-ordinate the session. However, Gerry had done all the hard work in organizing the various speakers before his departure and I would like to acknowledge his efforts in the Newsletter.

#### SESSION E2, SEVENTH AUSTRALIAN GEOLOGICAL CONVENTION

##### Monday August 27th (Chairman, Peter M.D. Bradshaw)

- 11:00-11:25 Hall, D., O'Neill, D., Klipfel, P.D., Duncan, G.L. and Vanderspuy: A Soil-sampling Orientation Survey to Determine the Value of Gold, Silver, and Base Metals in Delineating Bedrock Gold Mineralization.
- 11:25-11:50 Webster, J.G.; Gold and Silver Remobilization During Sulphide Ore Oxidation.
- 11:50-12:15 Rugless, C.S.: An Integrated Geological and Soil Geochemical Exploration Programme for Gold at Mt. McDonald, N.S.W.
- 12:15-12:40 Mann, A.W.: Lateritic Weathering and its Implications for Geochemical Exploration of Near-surface Gold Deposits.

##### Tuesday August 28th (Chairman J.F. Gilfillan)

- 8:30- 8:55 Baker, W.E.: Gold in Vegetation as a Prospecting Method in Tasmania.
- 8:55- 9:20 Taylor, G.R. and Comsti, E.C.: Hydrothermal Fluids from the Hillgrove Tungsten/Gold/Antimony Deposits.
- 9:20- 9:45 Wilson, A.F., Thomas, M.J., Fardy, J.: Examples of the Use of Neutron Activation Analysis of Gold in Waters to Identify Gold Prospects.
- 9:45-10:10 Burlinson K.: Fluid Inclusion Decrepitation as a Gold Exploration Technique in the Pine Creek Area, N.T.
- 10:10-10:30 Hochman, M.B.M., Russell, D.W., Van Moort, J.: Preliminary Use of Thermoluminescence in Gold Exploration.

OF GENERAL INTERESTA MULTILINGUAL LEXICON FOR EXPLORATION GEOCHEMISTRY

Back in September 1981 the then Treasurer, Ian Thomson, wrote a note on a Lexicon project for Newsletter No. 37. His request for help went largely unanswered, which we hope is more a measure of how busy our members are, rather than their lack of interest in a most important contribution the Association could make to international geochemistry.

At the Helsinki symposium a year ago, a meeting of Association Councillors was held with representatives of the International Association of Geochemistry and Cosmochemistry's Working Group on Geochemical Prospecting. In this meeting both organizations discussed their plans for future activities. The Lexicon project was endorsed by the IAGC, who agreed that it was a worthwhile project. Now, as a result of meetings held at the Moscow IGC in August, Professor Lukashev has offered to coordinate the Russian Language part of the Lexicon. Dr. Aucott of the British Geological Survey, who works in both Spanish and English, has offered to lead the Association's work. We will need volunteers to help and reach a consensus on Lexicon descriptions, especially in French, German and Portuguese.

If you are interested in this important project and would like to participate please write to Jeff Aucott, who is about to leave Columbia and returns to the United Kingdom in December at:

British Geological Survey  
Keyworth  
Nottingham, NG12 5GG  
United Kingdom

Robert G. Garrett

NEW SUPPLEMENT TO THE BIBLIOGRAPHY

The Association is hoping to have a supplement to the Bibliography of Exploration Geochemistry (Special Volume 11) ready for distribution at the Toronto 11th IGES. The purpose of this supplement would be not only to list and index titles that have come out since Special Volume 11, but also to catch titles that were missed in that volume. To do this adequately, we need contributions from the membership of titles that were missed by all three of the following: (1) Special Volume 11; (2) the lists appearing in the Newsletters; and (3) the AGI Bibliography and Index of Geology. Programs with Abstracts passed out at recent technical meetings would be especially appreciated. Material should be sent directly to Herb Hawkes, 6120 Santa Valera, Tucson, AZ 85718.

## DIRECTORY OF DEVELOPING WORLD GEOCHEMICAL LABORATORIES

In February this year the Commonwealth Science Council of the U.K. and UNESCO organized a workshop on the "Technical Aspects of Exploration Geochemistry for Development" in Harare, Zimbabwe. Representatives from 15 nations, mostly from Africa, attended. These representatives unanimously supported the urgent need for establishing a means of communication for chemists and geologists mutually involved in the field of mineral exploration. To meet this need a biannual newsletter is being planned and financial support being sought on behalf of the delegates by the CSC.

In addition participants were supportive of compiling a directory of geochemical laboratories in the developing world. The idea behind the directory is to try and reduce the isolation of geochemists by giving them the opportunity to identify people working with similar equipment and on similar projects so that problems may be discussed and information exchanged. To facilitate compilation the CSC in London have prepared a brief questionnaire. They are asking people to specify their organization's primary activities, laboratory facilities, and areas of particular experience and expertise. Should you be interested in participating in this directory would you please contact:

Ms. Kate N. Gass  
Project Officer  
Commonwealth Science Council  
Marlborough House  
Pall Mall  
London SW1Y 5HX  
United Kingdom

### THE A.E.G. AND AID PROGRAMS -- Arthur Y. Smith (IAEA-Vienna)

Members will recall the note published in the December 1983 issue of the Newsletter entitled "The AEG and Aid Programmes". After a good six-month wait we can now report that four (4) replies were received. Of these, two were from Australia, one was from Uganda, and one from U.S.A. These have been sent to the President for whatever action the Council considers appropriate. Perhaps the proposed panel session, "Geochemistry for Development" to be held during the Toronto meeting will produce a more substantial response. Thanks to the four who replied.

### JOURNAL OF GEOCHEMICAL EXPLORATION - CURRENT STATUS OF ISSUES

The latest issue of the Journal for the 1984 subscription distributed is dated July 1984, Volume 21, No. 1-3 (one complete issue).

BIBLIOGRAPHYRECENT PAPERS ON EXPLORATION GEOCHEMISTRY

This list comprises titles that have appeared in major publications since the compilation presented in Newsletter 48. Journals routinely covered and abbreviations used are Bulletin of the Canadian Institute of Mining and Metallurgy (CIM BULL), Economic Geology (EG), Geochimica et Cosmochimica Acta (GCA), Journal of Geochemical Exploration (JGE), the USGS Bulletin (USGS BULL), Circular (USGS CIR), Open File Report (USGS OFR) and Professional Papers (USGS PROF P), Transactions of Institution of Mining and Metallurgy, Section B: Applied Earth Science (TRANS IMM). Publications less frequently cited are identified in full. Compiled by Donald D. Runnells and Sandra L. Jones, Department of Geological Sciences, University of Colorado, Boulder.

Bowles, J.F.W., Cameron, N.R., Beddoe-Stephens, B., and Young, R.D., 1984. Alluvial gold, platinum, osmium-iridium, copper-zinc and copper-tin alloys from Sumatara--their composition and genesis. TRANS IMM 93(Feb.):B23-B30.

Boyle, E.A., Reid, D.F., Husted, S.S., and Hering, J., 1984. Trace metals and radium in the Gulf of Mexico: an evaluation of river and continental shelf sources. Earth Planet. Sci. Let. 62(1):69-87.

Campbell, I.H., and Barnes, S.J., 1984. A model for the geochemistry of the platinum-group elements in magmatic sulfide deposits. Canad. Mineral. 22(Pt. 1):151-160.

Campbell, I.H., Coad, P., Franklin, J.M., Gorton, M.P., and Thurston, P.C., 1984. Rare-earth element mobility in alteration pipes below massive Cu-Zn-sulfide deposits. Chem. Geol. 45(3/4):181-202.

Chatterjee, A.K., and Strong, D.F., 1984. Rare-earth and other element variations in greisens and granites associated with East Kemptville tin deposit, Nova Scotia, Canada. TRANS IMM 93(May):B59-B70.

Christmann, P., Lagny, P., Lescuyer, J.L., and Sharaf ad Din, A., 1983. Result of three years of prospecting in the Yemen Arab Republic. Discovery of the Jabali deposit in the Jurassic cover. Chron. Rec. Min. 51(473):25-38.

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