

# THE ASSOCIATION OF EXPLORATION GEOCHEMISTS NEWSLETTER

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

No. 55

**April 1986** 

## President's Message - Ian Thomson

How do you like the new format for the Newsletter? More than a year of thought and planning has now shown fruit in a full typeset version which should be easier to read as well as less expensive to produce and distribute to you. Like our friends in the International Association of Geochemistry and Cosmochemistry, who have also updated their newsletter, the change is a reflection of our continuing strength and maturity as a professional organization.

That strength is also seen in the firm

support of our publishers, Elsevier, with whom we have concluded an agreement that will see the Journal of Geochemical Exploration increase in size to three volumes per year. This gain will permit publication of more papers and guarantee that proceedings of most, if not all, of our regional and international meetings will appear in the Journal. Most important to you is that there will be no increase in the annual cost of the Journal to members. We expect to be able to hold dues at the current rate for the foreseeable future.

We have other publication projects on hand and should be able to announce a new Special Volume and reprinting of a popular earlier volume in the very near future.

Communications and education are major objectives of the Association. As President, I am particularly pleased to see these latest improvements and wish to thank our Secretary and Treasurer and the Editor and Business Manager of the Journal for their efforts on behalf of us all.

## 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.

Alan Coope has been named Director of Geochemistry for Newmont with worldwide responsibilities. Alan is based in Toronto where he continues, for the time being, as Manager of Newmont Exploration of Canada's eastern

exploration program. He writes to say that he is looking forward to renewing his contact with friends around the world.

Alfred T. Miesch has retired from the United States Geological Survey to establish a private consulting practice in statistical geochemistry and chemometrics. He may be contacted at: P.O. Box 1103, Grand Junction, Colorado U.S.A. 81502 (Ph. (303) 241-4829)

Paul Matysek has been appointed geochemist to the British Columbia Ministry of Energy, Mines and Petroleum Resources. His responsibilities will include the design, implementation and interpretation of regional geochemical surveys undertaken by the Province. He can be contacted at:

The B.C. Ministry of Energy, Mines and Petroleum Resources,
Room 300, 756 Fort Street,
Victoria, B.C.
Canada V8W 3A3
(Ph. (604) 387-5068)

## **New Members**

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.

Voting Members

R.W. Barker District manager

AMAX Exploration, Denver, U.S.A.

J. Choiniere Sr. exploration geochemist

MERQ, Quebec, Canada

J.S. Cone President

Cone Chemical Inc., Lakewood, Co. U.S.A.

M. Fukuda

Geochemist.

MINDECO, Tokyo, Japan (Trans.)

U.E. Kramar Geochemist

Univ. Karlsruhe, Karlsruhe, West Germany

System group mgr., computer section L.B. Lindqvist

Swedish Geological Co., Gammelstad

T.E. Lindholm Geochemist

Swedish Geological Co., Lulea, Sweden

Luan Ji-Shen Director, Geochm. Explor. Dept.

Research Inst. for Min. Resources

Sanlidian, Guilin, P.R. China

D.K. Jordt **Explorationist** 

Petrominex Inc., Dallas, TX., U.S.A.

P.F. Matvsek

Geochemist

(Trans.) B.C. Ministry of Mines

Victoria, B.C. Canada

J.D. McCartney Geologist

Cominco Ltd., Pine Point, N.W.T., Canada

K. Nicholson

Lecturer

Univ. of Papua, New Guinea c/o Univ. of Glasgow, Scotland

R.J. Van Enk (Trans.)

Consulting geologist and geochemist

Dryden, Ontario, Canada

Affiliate Members

W.K. Akhurst

Geologist

Vancouver, B.C., Canada

J.C. Harron

Research Asst., Dept. Geol. Sciences

U.B.C., Vancouver, B.C., Canada

L.F. Hill

Mine owner

Dellwood, Minn., U.S.A.

C.C. Johnson

Geochemist, Br. Overseas Devel. Admin.

Bandung, Indonesia

M.N. Richards

**Exploration department** 

C.R.A. Pty Ltd.

Karratha, Western Australia

S.J. Roth

Geologist

Freeport-McMoran Gold Co.

Elko, Nevada, U.S.A.

H. Seck

Prof. of Mineralogy

Inst. fur Mineralogie

Univ. of Koln, Koln, West Germany

## RECENT PAPERS ON EXPLORATION GEOCHEMISTRY

This list comprises titles that have appeared in major publications since the compilation presented in Newsletter 54. 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 Geolocial Sciences, University of Colorado, Boulder.

Aruscavage, P.J., and Campbell, E.Y., 1983. An ion-selective electrode method for determination of chlorine in geological materials. Talanta (Oxford) 30(10):745-749.

Ball, T.K., Nicholson, R.A., and Peachey, D., 1985. Gas geochemistry as an aid to detection of buried mineral deposits. TRANS IMM 94(Nov.):Bl81-Bl88.

Ballery, J.-L., et al., 1985. COGEMA's uranium prospecting in the north of Aquitaine and its results. Bull. Soc. Geol. France 1(3):305ff.

Banerjee, D.M., and Klemm, U., 1985. Organo-geochemical studies of Proterozoic stromatolitic phosphorite and the intercolumnar dolomite from the Aravalli Group, India. J. Geol. Soc. India 26(4):245-254.

Bodnar, R.J., and Sterner, S.M., 1985. Synthetic fluid inclusions in natural quartz. II. Application to PVT studies. GCA 49(9):1855-1860.

Bodnar, R.J., Burnham, G.W., and Sterner, S.M., 1985. Synthetic fluid inclusions in natural quartz. III. Determination of phase equilibrium properties in the system  ${\rm H_2O-NaCl}$  to  $1000^{\rm OC}$  and 1500 bars. GCA  $\underline{49}(9):1861-1874$ .

Bridges, N.J., Hanley, J.T., and McCammon, R.B., 1985. PRE-PRO: A computer program for encoding regional exploration data for use in characteristic analysis. Computers & Geosci. 11(5):513-520.

Brooks, R.R., et al., 1985. Botanical and geochemical exploration studies at the Seruwila copper-magnetite prospect in Sri Lanka. JGE 24(2):223-235.

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Brooks, R.R., Siriwardena, A., and Lee, J., 1985. A plasma emission method for determining elemental constituents of geological materials with a high iron content. Chem. Geol. 53(1/2):31-36.

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Butt, C.R.M., and Gole, M.J., 1985. Helium in soil and overburden gas as an exploration pathfinder—an assessment. JGE 24(2):141-174.

Cabri, L.J., et al., 1985. Proton microprobe analysis of trace elements in sulfides from some massive-sulfide deposits. Canad. Mineral. 23(Pt. 2):133-148.

Chormann, F.H., Jr., et al., 1985. A solvent extraction technique for determining concentrations of gold and silver in natural waters. Chem. Geol. 53(1/2):25-30.

Christodoulou, C., and Hirst, D.M., 1985. The chemistry of chromite from two mafic-ultramafic complexes in northern Greece. Chem. Geol. 49(4):415-428.

Dickson, B.L., and Davidson, M.R., 1985. Interpretation of U-234/U-238 activity ratios in groundwaters. Chem. Geol. 58 (1/2):83-88.

Drever, J.I., (Ed.), 1985. The chemistry of weathering. NATO Advanced Study Institute on the Chemistry of Weathering (Rodez, France, 1984). Kluwer Academic Pub., 324 p.

Elueze, A.A., and Olade, M.A., 1985. Interpretation through factor analysis of stream-sediment reconnaissance data for gold exploration in Ilesha greenstone belt, southwest Nigeria. TRANS IMM 94(Nov.):B155-B160.

Erdman, J.A., and Olson, J.C., 1985. The use of plants in prospecting for gold: a brief overview with a selected bibliography and topic index. JGE 24(3):281-304.

Fedikow, M.A.F., and Govett, G.J.S., 1985. Geochemical alteration halos around the Mount Morgan gold-copper deposit, Queensland, Australia. JGE 24(2):247-272.

Fiala, V., 1985. Chemical features of hydrothermally altered rocks of the Dylen deposit. Sbornik Geol. Ved (Czechoslovakia) 26:173ff.

Glikson, M., et al., 1985. Trace elements in oil shales, their source and organic association with particular reference to Australian deposits. Chem. Geol. 53(1/2):155-174.

Goff, S., et al., 1985. Delineation of the potentially auriferous quartz reefs by analyses of the bark of <u>Pinus</u> radiata (Monterey pine). JGE 24(3):273-280.

Gough, L.P., 1986. Trace-element geochemistry. Geotimes (Feb., 1986):54-55.

Heasler, H.P., and Surdam, R.C., 1985. Thermal evolution of coastal California with application to hydrocarbon maturation. AAPG Bull. 69(9):1386-1400.

Heintze, L., 1985. Geology and geochemistry of the porphyry stockwork molybdenum deposit at Tamboras, La Negra Zone (Peru). EG 80(7):2019-2027.

Ilani, S., Kronfeld, J., and Flexer, A., 1985. Iron-rich veins related to structural lineaments, and the search for base metals in Israel. JGE 24(2):197-206.

Jebrak, M., Smejkal, V., and Albert, D., 1985. Rare earth and isotopic geochemistry of the fluorite-barite vein deposits from the western Rouergue District (France). EG 80 (7):2030-2034.

Jones, K.C., 1985. Gold, silver and other elements in aquatic bryophytes from a mineralised area of North Wales, U.K. JGE 24(3):237-246.

Kadko, D., et al., 1985. An estimate of hydrothermal fluid residence times and vent chimney growth rates based on Pb-210/Pb ratios and mineralogic studies of sulfides dredged from the Juan de Fuca Ridge. Earth Planet. Sci. Let. 76 (1/2):35-44.

Korobeynikov, A.F., and Pshenichkin, A.Y., 1985. Geochemical features of pyrite in gold-ore deposits. Geochem. Intern. 22(5):145-155.

Kozlov, V.D., and Svadkovskaya, L.N., 1985. Geochemical criteria of ore content in Omchikandinsky granitic intrusion (North-Eastern Yakutia). Akad. Nauk SSSR, Siburskoe Otdelenie, Geol. Geofiz. (Siberia, in Russian) 302(1):49-57.

Krohn, M.D., 1985. Spectral properties (0.4 to 25 microns) of selected rocks associated with disseminated gold and silver deposits in Nevada and Idaho. USGS OFR 85-0576, 38 p.

Lapierre, H., et al., 1985. Geodynamic setting of early Devonian Kuroko-type sulfide deposits in the eastern Klamath Mountains (northern California) inferred by the petrological and geochemical characteristics of the associated island-arc volcanic rocks. EG 80(8):2100-2113.

Learned, R.E., Chao, T.T., and Sanzolone, R.F., 1985. A comparative study of stream water and stream sediment as geochemical exploration media in the Rio Tanama porphyry copper district, Puerto Rico. JGE 24(2):174-196.

Long, D.T., Lyons, W.B., and Gaudette, H.E., 1985. Tracemetal concentrations in modern marine sabkhas. Chem. Geol. 53(3/4):185-190.

Meyer, M., and Saager, R., 1985. The gold content of some Archaean rocks and their possible relationship to epigenetic gold-quartz vein deposits. Mineralium Dep. 20(4):284-289.

Nash, J.T., Siems, D.F., and Budge, S., 1985. Geochemical signatures of ore deposits and mineralized rocks from the Pilot Mountains, Mineral County, Nevada. USGS OFR 85-0388, 22 p.

Oberthur, T., and Saager, R., 1984. Silver and mercury in gold particulates from the Proterozoic Witwatersrand placer deposits in South Africa: Metallogenic and geochemical implications. Inf. Circ. 170, Econ. Geol. Res. Unit, Univ. Witwatersrand, Johannesburg, S. Africa, 21 p.

Obr, F., 1984. Accumulation of metals in the sediments of the Trebon Basin. Sbornik Geol. Ved (Czechoslovakia) 26: 105ff.

Page, N.J., Banerji, P.K., and Haffty, J., 1985. Character-ization of the Sukinda and Nausahi ultramafic complexes, Orissa, India, by platinum-group element geochemistry. Precambrian Res. 30(1):27-41.

Parker, W.C., Ragland, P.C., and Textoris, D.A., 1985. Controls on trace elements in the Ordovician Black River Group, New York, U.S.A. Chem. Geol. 53(1/2):83-94.

Peachey, D., Nicholson, R.A., and Ball, T.K., 1985. Discussion on use of carbon dioxide and oxygen in soil gases to detect hidden orebodies. TRANS IMM 94(Nov.):B201-B203.

Petrovskaya, N.V., et al., 1985. Traces of rare earth elements in quartz as the indicators of the source of ore material. Geol. Rudnykh Mestorzhdenii (Moscow) 27(3):66-74.

Raines, G.L., McGee, L.G., and Sutley, S.J., 1985. Near-in-frared spectra of West Shasta gossans compared with true and false gossans from Australia and Saudi Arabia. EG 80(8): 2230-2239.

Robinson, G.D., 1985. Enhancement of subtle geochemical anomalies by selective chemical extractions of metal from pebble coatings. Chem. Geol. 53(1/2):37-52.

Saarnisto, M., and Taipale, K., 1985. Lithology and trace-metal content in till in the Kuhmo granite-greenstone terrain, eastern Finland. JGE 24(3):317-336.

Sanzalone, R.F., and Domenico, J.A., 1985. Trace element content of gossans at four mines in the West Shasta massive sulfide district. EG  $\underline{80}(8):2206-2212$ .

Sasaki, A., et al., 1984. Sulfur isotope reconnaissance of porphyry copper and mantotype deposits in Chile and the Philippines. Bull. Geol. Surv. Japan (in English) 35(11): 615ff.

Shimizu, M., and Shikazono, N., 1985. Iron and zinc partitioning between coexisting stannite and sphalerite: a possible indicator of temperature and sulfur fugacity. Mineralium Dep. 20(4):314-320.

Sneath, P.H.A., 1985. DENBRAN: a BASIC program for a significance test for multivariate normality of clusters from branching patterns in dendrograms. Computers & Geosci. 11 (6):767-786.

Takeno, S., Minami, A., and Kitagawa, R., 1985. Metallic element contents of biotite collected along the Nishiki river, southwest Japan--Heavy metal concentration to clay minerals in aqueous solutions. II. Geochem. J. (Japan) 19(4): 181-192.

Thornber, M.R., 1985. Supergene alteration of sulphides, VII. Distribution of elements during the gossan-forming process. Chem. Geol. 53(3/4):297-302.

Toens, P.D. (Proj. Leader), 1984. Surficial uranium deposits. Report of the Working Group on Uranium Geology. INIS Clearinghouse, Int. At. Energy Agency, Vienna, Austria. Report No. IAEA-TECDOC-322, 252 p.

Vaasjoki, M., and Gulson, B.L., 1985. Evaluation of drilling priorities using lead isotopes at the Lady Loretta lead-zinc-silver deposit, Australia. JGE 24(3):305-316.

Yongfeng, H., 1985. A study on the behavior of mercury in weathering environment in Wanshan district. Geochimica (in Chinese with English abstracts) 1:9ff.

Yongxuo, X., et al., 1985. The distribution of halogen elements in the Dongguashan copper ore deposits and its relationship with mineralization. Mineral Dep. (China) 4(1): 96ff.

Zhou, D., 1985. Adjustment of geochemical background by robust multivariate statistics. JGE <u>24(2):207-222</u>.

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## **Future Meetings**

Geochemical Exploration for Precious and Base Metals, May 5-9, 1986 Second Notice

This short course is being given by L.G. Closs at Metals Hall, Green Center, Colorado School of Mines, Golden, Colorado, U.S.A.

The program, now in its 6th year, is an introductory course on the fundamentals of modern geochemical exploration techniques, ideally suited for geologists, chemists, and others interested in the application of geochemistry to mineral exploration. The enrolment fee is U.S. \$650 with a \$50.00 registration deposit. For information concerning the program, contact:

Special Programs and Continuing Education (SPACE) Office Colorado School of Mines Golden, Colorado, U.S.A 80401 303-273-3321 Prospecting in Areas of Glaciated Terrain Kuopio, Finland, September 1-5, 1986

The seventh symposium in the series 'Prospecting in areas of glaciated terrain', organized by the Institution of Mining and Metallurgy and the Geological Survey of Finland, will be held at Hotel Rauhalahti, in Kuopio, Finland on September 1 and 2, 1986. In addition to the technical sessions, a post-symposium three-day excursion will take place on September 3rd-5th.

Papers presented in the symposium will deal mainly with geochemical exploration. In addition, there will be papers concerning glacial transport, various geophysical methods and other types of prospecting in glaciated terrain.

Excursions are planned to massive sulphide ores in Outokumpu and Pyhahäselkä, an apatite mine in Siilinjärvi and talc and soapstone mining and industry in Polvijärvi and Juuka. Geochemical and geophysical prospecting techniques as well as the use of dogs in prospecting will also be demonstrated.

For further information, contact:

Conference Office Institution of Mining and Metallurgy 44 Portland Place London W1N 4BR England

Dr. R. Salminen Geological Survey of Finland P.O. Box 237 70101 Kuopio Finland

Short Course
Exploration Geochemistry:
Design and Interpretation of Soil
Surveys - Quality Inn, San
Antonio, Texas, November 6-9, 1986

The third Society of Economic Geologists short course will be held jointly with the Association of Exploration Geochemists from Thursday November 6 to Sunday November 9 at the Quality Inn, San Antonio, Texas, prior to the 1986 annual meeting of the Geological Society of America. The course is designed to update practising exploration geologists on design, implementation and interpretation of soil geochemical surveys including choice of

appropriate analytical and statistical methods. Case studies will be used as worked examples to illustrate both the problems that can arise, and the benefits of a systematic approach to anomaly definition and rating based on sound understanding of geochemical processes in surficial media.

Instructors will be W.K. Fletcher, S. Hoffman, M.B. Mehrtens, A.J. Sinclair and I. Thomson. The registration fee of \$375 includes all course fees, Volume 3

of Reviews in Economic Geology, lodging (based on double occupancy) for the nights of November 5 through 8, and lunches on the meeting days. The course is limited to 60 participants, with applications accepted on a first-come first-served basis. Deadline for registration is September 26, 1986. For information and registration forms contact: Lois Elms, Western Experience, 2369 Carriage Circle, Oceanside, CA 92056, 619-722-0027.

Regional Meeting of the Association of Exploration Geochemists - Exploration in the North American Cordillera, Vancouver, B.C., Canada May 12-14, 1986 Third Circular

The Association of Exploration Geochemists and the Cordillean Section of the Geological Association of Canada extend an invitation to attend the GEOEXPO/86 symposium on explorations in the North American Cordillera to be held in Vancouver, British Columbia, Canada from May 12-14, 1986. Details on registration, the technical program, short course, workship sessions, field excursions and social events are described in the Third Circular

which has been mailed to all Association Members. The Organizing Committee urge that those members proposing to attend the meeting complete and return the registration forms AS SOON AS POSSIBLE. Further information may be obtained from:
GEOEXPO/86
P.O. Box 49330 Bentall Station
Vancouver, B.C.
V7X 1P1
Canada

International South European Symposium in Exploration Geochemistry - Athens, Greece, November 10-11, 1986

The Institute of Geology and Mineral Exploration (Greece) and the Association of Exploration Geochemists is sponsoring the International South European Exploration Symposium in Geochemistry. This Symposium will be held in Athens, Greece, on November 10-11, 1986. The program includes two days of technical sessions (general and special sessions, poster presentations and exhibitions), field trips and program for guests and spouses. Members who did not receive the second circular can obtain one through the AEG Rexdale Office.

Registration and a welcoming reception on November 9, 1986. For further information and registration forms write to:

Organizing Committee
International South European Symposium
in Exploration Geochemistry
Institute of Geology and Mineral
Exploration
70 Messoghion Street, 115 27
Athens, Greece

Telex: 021 6357 IGME GR

## **Abstracts**

The abstracts of unpublished technical notes, case histories and short papers are presented in this section of the Newsletter. If you would like a copy of the full paper or material, please contact the Author(s) directly. Please note: Abstracts must be no longer than 150 words.

The Uranium Decay Series in the Prospecting Environment: Production, Migration, Decay

The behavior of each radionuclide in the prospecting environment is controlled by its chemistry, its radioactive decay and its production from its precursor. Decay and production are defined by equations relating to the half-lives. Chemical behavior of the short lived nuclides is modified by their extremely low abundance (e.g. only about 200 tonnes of radon in the entire earth's crust). These processes, and applications to prospecting for uranium, are illustrated by a diagram with footnotes.

Robert H. Morse 298 Beech Avenue, Toronto, Ont. M4E 3J2 Tel. (416) 699-5760

## Calendar of other Geochemical Meetings

1986

July 7-11

Regional Meeting of the Association of Exploration Geochemists - Geological Society of South Africa Geocongress. (The Symposium Secretariat, S. 339, CSIR, P.O. Box 395, Pretoria, Republic of South Africa 0001)

October

3rd Exploration Geochemistry Symposium, Guilin, China. (Prof. Xie Xuejing, Chairman, Organizing Committee, 3rd Chinese Exploration Geochemistry Symposium, Institute of Geophysical and Geochemical Exploration, Langfong, Hebei, 102801, The People's Republic of China.) 1987

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April 23-26

12th International Geochemical Exploration Symposium - 4th Symposium on Methods of Geochemical Prospecting, Orlean La Source, France. (The Organizing Committee, 12 IGES - 4th SMGP, BRGM B.P. 6009, 45060 Orleans, Cedex, France, tel. 38 64.30.08)

## Secretary's Notes

This Newsletter is a radical departure from the style with which you have been familiar over the years. As Ian Thomson remarked in the President's Message, the new format only evolved after much debate and hard work. Despite the change, many of the original features will continue and I would encourage you to continue to send in your contributions and comments.

You will see that there has been a response to the Abstracts feature which first appeared in the last Newsletter. However, I would ask you to limit contributions to 150 words so that we are able to print several abstracts within the limited space available. Interest continues in the computer software pool, and Eric Grunsky has informed me that he expects

to transfer the existing programs to floppy disk in the near future.

Despite a decline from 1985, membership size is still healthy and presently stands at 1170. However, roughly 40 per cent of members have still to pay their 1986 dues. It is true that a recession still affects the mining sector and that some of the overseas members are experiencing currency problems. Also, some of you may not have received a 1986 Dues Renewal Notice with the September 1985 Newsletter. If you are experiencing problems with dues payment, please let me know and a possible solution may be suggested. Otherwise, I would ask you to remit outstanding dues as soon as possible.

A comment on Nominations form for

the 1986-87 Distinguished Lecturer Series. As you are aware, Nomination forms accompanied Newsletter No. 54, which should have been distributed in early January 1986, giving adequate time for members to return their nominations by January 31st, 1986. Unfortunately, due to printing and distribution delays, many members did not receive the Nomination Form until February. I apologise for this delay to those members who wished to nominate a Distinguished Lecturer candidate.

Finally, for those of you able to attend GEOEXPO/86 in Vancouver, I look forward to meeting you at the Annual General Meeting.

Ray Lett

## **Award Winners**

## Academy of Athens, Greece, Award

Two papers on geobotanical-biogeochemical topics published in the Journal of Geochemical Exploration have been awarded first prize in a competition organized by the Academy of Athens, Greece. The papers are:

Kelepertsis .A.E. and I.Andrulakis. Geobotany-biogeochemistry for mineral exploration of sulphide deposits in northern Greece. Heavy metal accumulation by Rumex acetosella L. and Minuartia verna(L.) Hiern. J.Geochem.Explor. 18(1983):267-274

Kelepertsis A.E., Andurlakis .I and R.D. Reeves. Rumex acetosella L. and Minuartia verna (L.) Hiern as geobotanical and biogeochemical indicators for ore deposits in northern Greece. J.Geochem.Explor. 23 (9185):203-212

The Association congratulates the authors on their success in the competition.

## Annual General Meeting, 1986

The Annual General Meeting of the Association of Exploration Geochemists will be held at 17:15 hrs PDT, Tuesday May 13th, 1986 in the War Memorial Gymnasium, University of British Columbia, Vancouver, B.C., Canada.

## AGM Agenda

- 1. Minutes of the 1985 AGM
- 2. Matters Arising
- 3. President's Report
- 4. Secretary's Report
- 5. Treasurer's Report
- 6. Admissions Committee Report
- 7. Introduction of 1986-87 Executive
- 8. Announcement of Ordinary Councillor Election
- 9. Any Other Business
- 10. Adjournment

The President, Ian Thomson, will deliver his address immediately following the AGM.

## Please take note!

## Publication of Proceedings 11th IGES Toronto

The editor of these proceedings, Bob Garrett, had initially anticipated submission of edited manuscripts to Elsevier over the period of August to end of November, 1985. Publication of the special issue of the JGE would have followed approximately six months after receipt of the final manuscript, i.e. Summer, 1986. As of March 1986, editing is approximately seven months delayed. Thus the publication of the special issue is unlikely before early 1987.

Eion Cameron JGE Editor

## Computer Software Pool

The following programs are available from the Association: TERNARY PLOTTING PACKAGE (\$12.00), BINARY PLOTTING PACKAGE (\$12.00), IRVBAR, JENSEN, JENBND and STRNET (all \$6.00).

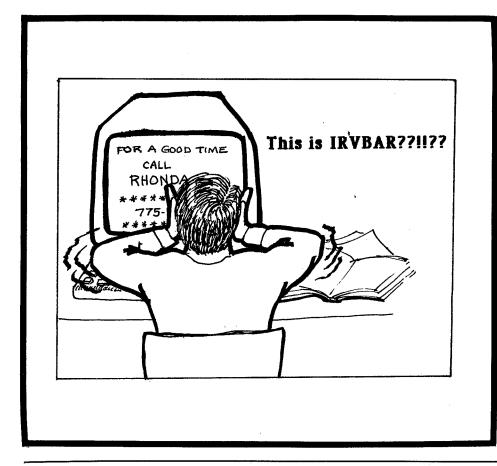
These programs will shortly be available on IBM compatible floppy disc and further details of this development and other software contributed to the pool will be given in the next Newsletter.

Additional contributions to the pool are encouraged in any programming language and for any computer. However, each contribution should include source listing with internal documentation, the type of machine, list of peripheral devices required and user documentation.

The Association of Exploration Geochemists or anyone else affiliated with the authorship or distributing of the computer programs assumes no responsibility for any problems or errors that arise from the use of any of the programs. All users assume use of the programs entirely at their own risk.

Please note that all orders for software should be made to
The Association of Exploration
Geochemists
P.O. Box 523
Rexdale, Ontario, Canada
M9W 5L4

For further information, requests, submissions, contact:
Eric Grunsky
Ontario Geological Survey
911-77 Grenville Street
Toronto, Ontario, Canada
M5S 1B3
416-965-7046



## Executive

#### President:

#### 1. Thomson

Placer Development Ltd. P.O. Box 49330, Bentall Stn. Vancouver, British Columbia V7X 1P1 Canada

#### Vice Presidents:

#### G.H. Allcott

United States Geological Survey National Centre, M.S. 913 Reston, Virginia 22092 U.S.A.

#### S.J. Hoffman

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#### Secretary:

#### R.E. Lett

Association of Exploration Geochemists P.O. Box 523 Rexdale, Ontario M9W 5L4 Canada

#### Treasurer:

#### R.G. Jackson

359 Broadway Avenue Toronto, Ontario M4P 1X1 Canada

#### Councillors:

#### 1985-86

L.G. Closs

I.L. Elliott

C.F. Gleeson N.G. Lavery

W.D. Goodfellow

C.E. Nichols

### 1985-87

L.B. Bloom

R.G. Garrett

R.K. Glanzman

B. Hitchon

B.W. Smee

A.E. Soregaroli

Australian Regional Councillor: B.L. Farrell

European Regional Councillor: E. Wilhelm

Southern Africa Regional Councillor: G.L. Coetzee

Brazilian Regional Councillor: R.W. Lewis Jr.

Northern Countries Regional Councillor: A.J. Bjorklund