

THE ASSOCIATION OF EXPLORATION GEOCHEMISTS

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European Regional Councillor: W. Friedrich

Southern Africa Regional Councillor: G.L. Coetzee

NEWSLETTER NO. 28

JUNE 1979

This is the first newsletter of the 1979-1980 Association year.

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 Association office.

- R. Beeson has returned to the U.K. following the termination of his contract with Uriran in Teheran, Iran.
- A.A. Burgoyne, formerly of UMEX Corp. has joined the Canadian Government's Department of Indian and Northern Affairs as Head of the Mineral Resource Section.
- S. Chork has completed work on his NATO post Doctoral Fellowship at the Applied Geochemistry Research Group in London and has returned to Canada. In May he was appointed a Senior Geologist with the Nova Scotia Department of Mines in Halifax where he has responsibility for the exploration and applied geochemistry programmes.
- N. Marshall has resigned from his position as exploration research co-ordinator for the Selection Trust Group, to establish an independant consulting practice in exploration geochemistry and research. His business address is, N.J. Marshall and Associates, Suite 2, 113 Forest Road, Hurstville, N.S.W. 2220, Australia.

INTERNATIONAL NEWS

We have a new Regional Councillor for the Association. Louis Coetzee, who works with the Geological Department of Anglo American Corporation, has been appointed Regional Councillor for Southern Africa following his proposal by members from the region. Both G. Friedrich and J. Gilfillan will continue as Regional Councillors for Europe and Australian respectively.

An Australian Geoscience Council may be formed and members will be glad to hear that the Association is taking an active role in this work. The following short report has been forwarded to the Newsletter by the Regional Councillor.

Mr. I.G.P. Wilding represented the Australian membership of the Association of Exploration Geochemists at a meeting convened in Melbourne by Professor J.F. Lovering, President of the Geological Society of Australia, to investigate the possibility of forming a national Australian Geoscience Council. At the meeting, Prof. G.J.S. Govett summarized the structure and workings of the Canadian Geoscience Council. Although approval for the concept of the Council was not unanimous, the meeting undertook to establish a working committee to investigate further the formation of such a Council and the AEG has undertaken to provide a representative from industry to participate in these preliminary working group meetings.

EDITORIAL --- President Paul Theobald

The Annual General Meeting of the Association held in Tucson, Arizona, April 9, 1979, was the occasion for successful fulfillment of the obligations undertaken by the retiring executive and council. The reports reproduced in this Newsletter testify to their productivity.

The Tucson regional symposium on Exploration Geochemistry in the Basin and Range Province was well attended and well received. The excellent program suffered only from a strong bias that I hope does not reflect a trend. The Conceptual Models Volume that precipitated the regional symposium contained an even balance of papers from government, academic, and industrial sources. Of the 24 abstracts selected for the meeting only three were contributions from industry, and two of these were companies with a service to sell. Certainly the labors of the industrial geochemists have yielded more information than this balance would suggest. The next opportunity for regional symposia will be in 1981, between the biennial symposia in Hannover, 1980, and Saskatoon, 1982. Suggestions for locations and topics for such a symposium would be welcomed by council.

The Tenth International Geochemical Exploration Symposium will be held in 1983, inaugurating the odd-year sequence for the biennial symposia. A site outside of North America would be appropriate, and candidates are invited to submit proposals.

I wish you all a fruitful summer season and look forward to seeing many of you at the symposium on Geochemical Exploration for Uranium in San Diego, California, this fall.

THE ANNUAL GENERAL MEETING

The AGM was held at the Ramada Inn, Tucson, on April 9, 1979. There were 96 voting members in attendance. The annual reports of the outgoing President, Peter Bradshaw, and Secretary, Bob Armstrong, are reproduced here. Ines Filicetti, who looks after the office in Toronto, prepared a breakdown of our membership by country for the meeting. This I think will be of interest to all members, still our major support is in North America with 58% of total membership, Europe and Australia both with 12% apiece.

A major item at the AGM was the vote on the amendment to the Association By-Laws over the definition of Affiliate Member. This amendment was put to the vote, the resubeing only one vote against. Legal requirements are now being fulfilled in Canada viz-a-viz on incorporation. Once these are completed the By-Laws are to be prepared for circulation to the membership. It is hoped that printing will be completed by the fall.

The new Executive and Council Members for the 1979-80 and 1979-81 were announced, their names may be found on our letterhead.

Peter Bradshaw's address as outgoing President has been forwarded to the Journal where it will appear later this year.

PRESIDENT'S REPORT --- ANNUAL GENERAL MEETING

It now falls on me to report to you on the state of your Association.

The continued healthy state of the Association is indicated by a number of factors.

Firstly, by attendance at this meeting. There are over 240 registrants in spite of this being a regional theme meeting specifically designed to be of local interest.

Secondly, there is a continued growth in the membership, both in the number of members and also the number of countries and geographical regions covered.

In addition, the number of subscribers to the Journal of Geochemical Exploration continues to grow steadily, there now being over 1,300 subscribers in over 40 countries.

Turning to the Journal, as I announce in the last newsletter, Elsevier have been awarded a further five year contract for the printing of the Journal. This contract, with its financial commitments, was not entered into lightly. The alternatives open to the Association were investigated by the Publication Committee, under the chairmanship of Dr. Tim Meyer. After discussion with other Associations on the cost and quality of their journals, your Association Council decided to accept the contract renewal offered by Elsevier. The Journal is certainly the most visible aspect of the Association and a vigorous journal, with material of international standard, is essential for the success of the AEG. It is largely through the standards set by the Journal as well as those of the various meetings that the Association has been able to establish exploration geochemistry as an important aspect of the earth sciences. The high scientific standard of the Journal is due to the hard work of the Editor-in-Chief, Dr. E. Cameron, the Editorial Board and the contributors. However, the publishers also form an essential element in the presentation of the high quality journal of international standard. Elsevier have agreed to continue publication of the Journal at the same cost (US dollars) to the Association for a further five years. (While this agreement does contain a clause allowing Elsevier to increase the price should the exchange rate between the U.S. dollar and dutch guilder change by more than 30%; hopefully this will never occur.) This agreement means that the subscription rate of the Journal to Association members should remain unchanged for 10 years. This must be regarded as a dramatic achievement in this decade of double digit inflation. The Business Editor of the Journal, Dr. John Hansuld, was instrumental in concluding the Association's contract with Elsevier. We are most grateful for his efforts.

The Association also has a full slate of future meetings in the forthcoming years.

There will be a Uranium theme meeting in San Diego, California on November 4th, 1979 in conjunction with the GSA Convention. This meeting will provide an overview of Geochemical Exploration for Uranium, particularly in the U.S.A. There will be 13 papers plus a panel discussion.

The 8th International Geochemical Exploration Symposium will be held in Hannover, Germany in April, 1980. This promises to be a large symposium as over 300 people from 49 countries have already responded to the first questionnaire. Five post-symposium field trips have been arranged - two each to Germany and Austria and one to Czechoslovakia.

The 9th International Geochemical Exploration Symposium will be held in Saskatoon, Saskatchewan in May, 1982. This symposium, in this very rapidly expanding centre of exploration activity in Canada, will also coincide with the City's centennial.

Because of the continual clashes of our international meetings, which are held every two years, with the International Geological Congress, which are held every four years, the Council has decided to move the Association's International Meetings from even to odd years. As a result, it is planned to hold the 10th International Symposium in 1983. The location of this meeting has yet to be decided. Any group interested in hosting this meeting should submit their proposal to the in-coming President, Dr. Paul Theobald.

The Bibliography Committee, under the very able chairmanship of Dr. Herb Hawkes, continues to be very active. The latest supplement to the bibliography covering the period December 1977 to December 1978 has just been printed and is available free to registrants at this meeting. The Committee have ambitious plans to produce a bibliography in 1982 incorporating all the previously available material plus previously unlisted references. The Association is very much in debt to Dr. Hawkes and his Committee for performing this very valuable task.

The Admissions Committee, under the chairmanship of Dr. Lloyd James, continues its efficient work. The Committee has approved more than 60 applications in the past year, many from outside North America helping to strengthen the international character of the Association.

The Council has recommended constitutional changes allowing a broader class of individuals working in the area of exploration geochemistry to become affiliate members. The membership will be asked to vote on this amendment later in the meeting.

The proceedings of part of the International Symposium held in Denver last year are now printed and available. Those who purchased the proceedings at the time of the meeting can either pick them up here or they will be mailed to them. Copies are also available for purchase at this meeting and through the Association office. I would like to extend thanks on behald of the Association to John Watterson and his Committee for their work on producing this volume. This volume represents a milestone in the evolution of the Association as it is the first time in the Association's history that we have undertaken a financial venture of this magnitude.

The Association has just received the formal nomination fo Dr. Louis Coetzee of Anglo-American, Johannesburg as Regional Councillor of the Association for South Africa. This nomination will pass through the normal procedure. The Association welcomes such nominations from any part of the country as an excellent means of keeping directly in contact with members in different areas. Certainly the Association's Regional Councillors in Australia and Europe, J. Gilfillan and G. Friedrich, respectively, have allowed us to keep closer contact with members in those areas.

Before concluding, I would like to express my appreciation and I am sure the appreciation of everyone here to Ken Lovstrom and the entire organizing committee of this meeting on the excellent performance in putting this meeting together.

In concluding this report, I would like to record my thanks to the past years Council, Executive and Chairmen of different committees for their hard work on behalf of the Association. It has been a pleasure working with them. I have very much enjoyed working as your president for the past year and I am looking forward to working with the in-coming president over the next year.

SECRETARY'S REPORT TO THE ANNUAL GENERAL MEETING

The past year, the second year of operation as an incorporated Association, was successful both technically and financially. The permanent office in Toronto continues to operate smoothly and efficiently under the capable direction of Mrs. I. Filicetti. The Membership of the Association now stands at 569, representing 51 separate countries. As well, there are 21 corporate members from 6 separate countries. The Membership of the Association continues to grow each year.

The Association continues to take an active role in the planning and discussion of mineral policies in various countries. In Canada, the AEG is represented on the Canadian Geoscience Council by Lloyd Clark of Saskatoon. In the USA, Art Rose sits on the US National Committee for Geochemistry (NRC) and in Australia R.H. Mazzuchelli of the AEG is working in close association with the Bureau of Mineral Resources developing exploration geochemistry techniques and policy applicable to mineral exploration in that country. The Association continues to build and strengthen with time; this is due to the collective efforts of its Members. The keyword is collective and a means of providing a unified bond of the members are AEG hosted Symposia as well as other means such as the Newsletter. The Newsletter is an informal publication of the Association designed to keep the Membership informed of up-to-date happening, personnel moves and meetings as well as provide a forum for Members to express their views on geochemical topics. The Newsletter if for the Members. However, to make it effective it should also be by the Members, which at present it is not. Only a very few contribute material for the Newsletter and it is left mainly up to the Council and Secretary to fill the pages. The Association Executive and Council all feel it is worth the effort and cost to publish the Newsletter, but, speaking as the Secretary, I sometimes wonder if the rest of the Members - throughout the world read and use the Newsletter.

The Secretary, who edits the Newsletter receives neither comment or, <u>perhaps worse</u>, constructive criticizm of its contents and layout.

I urge you, in the upcoming year, to support your Secretary by providing up-to-date interesting and useful information for him to use in the Newsletter. Remember the Newsletter is \underline{by} you as well as \underline{for} you.

R.C. Armstrong

NUMBER OF AEG MEMBERS IN THE VARIOUS COUNTRIES OF THE WORLD as of Dec. 1978

Argentina	1	Indonesia	2	Peru	1
Austria	3	Iraq	1	Phillipines	6
Australia	58	Ireland	6	Phillipines Portugal To Political	1
Australia Bolivia	1	I taly	2	Rwanda	1
Brasil	30	Japan	- 2	Spain	4
Cameroon	1	Kenya	ī	South Africa?	15
Canada	153	(Korea)	2	⟨S.W. Africa⟩	2
Chile Columbia		Lebanon	ī	Sweden	4
Costa Rica Cyprus	ĭ	Malaysia	4	Switzerland	2
Czechoslovakia	; 1	Mexico	ż	(Thailand) Tanga	s
Ecuador Denrich	2	Netherlands	3	Tunisie	ī
LCuddoi	ī	New Guinea	ĭ	Turkey	ż
Egypt Finland France	7	New Zealand	i	United Kingdom	20
	10	Niger	. ,	USA	179
Germany	10		. 6	Venezuela	173
Greece	. 1	Nigeria	2	Zaire	ī
(Haute Volta)	1	Norway			3
Ìndia /	5	Panama	51	Zambia	
•			M	Total	569

THE TUCSON REGIONAL SYMPOSIUM IN RETROSPECT

The Association's 1979 Regional Symposium, held in Tucson, Arizona on April April 9-10th, was an overwhelming success. A total of 248 registrants attended the two days of technical sessions and social events. Twenty-five technical papers were presented concerning exploration geochemistry in the Basin and Range Province and related subjects.

The benefits of an odd year AEG Regional Sympsoium were exemplified in Tucson. Timely technical papers concerning exploration geochemistry were presented. AEG publication sales were brisk while approximately 75 requests for membership applications to the Association were received.

I would like at this time to thank each and every member of the Symposium Organizing Committee for their hard work and dedication without which the Symposium would not have been a success.

K.A. Lovstrom, Chairman, Symposium Committee

FUTURE MEETINGS

8TH INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM - April 10-15, 1980, Hannover

The second announcement and call for papers for the 8th IGES has gone out from the Symposium Chairman, Dr. Heinrich Gundlach and his colleagues at the Bundesanstalt fur Geowissenshaften und Rohstoffe (Federal Institute for Geoscience and Natural Resources, Geological Survey of the Federal Republic of Germany) in Hannover.

Due to the fluctuations of the international money market and the price of gasoline the costs quoted are already out of date, but you will be pleased to hear the news is good. The Symposium Committee are reducing the price of excursion C6 (Austria, Alpine Metallogeny and Deposits) from 900 DM to 700 DM, equivalent to US \$470 to \$370. However, the Committee inform us that further changes may have to be made depending upon the gasoline situation in Europe and dollar alter equivalents of the Deutschmark will of course vary with the state of the foreign exchange market.

Should anyone not be on the 8th IGES mailing list and wish to attend the Symposium they should contact the Organizing Committee at the earliest opportunity.

Dr. H. Gundlach 8th IGES Organizing Committee Federal Institute for Geosciences and Natural Resources P.O.Box 510 153 D-3000 Hannover 51 Federal Republic of Germany

North American Air Charter Flight

Howie McCarthy of the Branch of Exploration Research of the USGS Denver has been looking into charter flight arrangements for Western US members and has forwarded the following note to the Newsletter.



"Group travel to the Hannover Symposium, April, 1980, is available from Denver, Colorado. Air transportation will be on commercial flights (Braniff and Lufthansa) from Denver via Dallas, Texas to Hannover is \$478.00 but is subject to change. Return date and departure city from Europe is flexible. If interested please contact Ellen Hill, Manager, Business World Travel, 130 North Ash, Casper, Wyoming 82601, Telephone 307/266-1634."

I understand that Mrs. Hill, who's husband is an AEG member would also make arrangements for travellers from Western Canada or elsewhere.

This leaves Eastern North America, I believe that Mrs. Hill could help the Easterners However, we require some coordination, do we have a volunteer? At least as a strart if anyone is interested perhaps they could drop a note to the Secretary indicating preferred departure points and dates. These will be held until a coordinator is found.

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

In 1982 the biennial symposium will return to North America and be held in Saskatoon, Saskatchewan. 1982 may seem a long way ahead but this is the lead time necessary, especially when field trips are being planned to the Wollaston and Athabasca areas. The dates are a little later than usual, this was so that the symposium could be held just prior to a major Geological Association of Canada meeting in Winnipeg on May 17-19. Lloyd Clark, of the Saskatchewan Mineral Development Corporation, is chairman of the organizing committee.

NORTH AMERICAN MINI SYMPOSIUM FOR 1981

No final decision has been made for the 1981 meeting yet, various proposals have been made to Council. These will be reviewed and progress reported in the next Newsletter.

GEOCHEMICAL EXPLORATION FOR URANIUM SYMPOSIUM - NOVEMBER 4, 1979, San Diego

This one day symposium to be held just prior to the Annual Meeting of the Geological Society of America is being sponsored by the Association and the U.S. Department of Energy. The topics cover all aspects of uranium geochemical exploration in North America. The organizing committee is led by Bob Carpenter and it is proposed that the papers be published in the Journal. If you plan to attend the GSA meeting come a day early and attend the symposium.

INTERNATIONAL CONFERENCE ON ARIDIC SOILS - March 29 - April 4, 1981, Jerusalem

We have received notice of this meeting of the international Society of Soil Science. Commissions V and VI being held in Jerusalem through the organization of the Israel Society of Soil Science. The first circular does not specifically mention geochemistry but covers both weathering and genetic processes. Anyone interested in this meeting should contact.

Dr. D.H. Yaalon Department of Geology The Hebrew University of Jerusalem Jerusalem 91000, Israel

JOINT VENTURE ANYONE ?

The following note was provided by Bob Boyle from the Geolgical Survey of Canada in Ottawa - one wonders what is does for the cosmic abundance tables.

Science Digest for June 1979 reports the presence of a "CP" (chemically peculiar) star in the Cancer constellation. The star \underline{K} Cancri is composed essentially of manganese and gold, both elements having been verified by spectroscopy. The star is about three times the size of the sun and is reported to contain at least one hundred billion tons of gold, which at \$280 US per ounce is worth about \$9 \times 10 US. The only catch is that a round trip to the prospect on the star would take some 350 years, travelling at the speed of light.

FROM THE SECRETARY'S OFFICE.....

CALL FOR DUES ---- First Call

Attention is directed to the 1980 dues notice included in this Newsletter. This is the first call for the 1980 dues. <u>Subscriptions are due January 1, 1980</u>. Failure to pay prior to this date results in the termination of your subscription as well as the exclusion of your name from the mailing list. The Elsevier mailing list for the Journal of Geochemical Exploration is also revised in January of each year. Please note that once again the dues have not increased, however, in fairness to all our international members payments must be made in US dollars, or equivalent.

To-date we have maintained several manual membership lists. We are attempting to create a single computer based list for use by the office, Secretary and Treasurer. We request that you use your desired mailing address, we also ask that you add your office telephone number. This is a new request, availability of your number will help your Executive and our Journal Editor as well as other members.

A decision has been made by Council (April 8, 1979) that a membership list be compiled every second year, to coincide with the International Symposium, and distributed to all members of the Association with the Newsletter prior to the Symposium. Therefore, your assistance is requested in these matters as a new membership list will be available in 1980.

MEMBERSHIP DRIVE

During the last year, 1978-79, membership has continued to grow. The number of application processed was substantially less than for the previous year. The one heartening fact was that many of the applications were from countries outside North America, these memberships are important as they help strengthen the international character of the Association.

With the amendment to the By-Laws new applications forms are being printed. As a first move to a membership drive all those registrants at the Denver and Tucson meetings who are not members will be contacted. Similarly anyone who has published in the Journal and is not a member will receive an invitation to apply for membership.

The Council asked Bill Coker of the Geological Survey of Canada in Ottawa to chair the Membership Committee. If anyone has views or ideas on ways to boast our membership please contact the Secretary's office or Bill Coker, your suggestions are welcome.

EXPLORATION GEOCHEMISTRY 1978 -- 7th IGES Volume

The Symposium volume from last years meeting in Golden is now printed and available for distribution. We should all congratulate John Watterson and Paul Theobald, and their production team, for an excellent job in preparing the volume. This has been the first major publishing effort of the Association, therefore the need for a financial success is very important to us. On a separate flyer is a copy of the notice that has been circulated to other journals for use as a notice or advertising. If you have not yet ordered your copy all necessary information is in the notice. Please distribute or display the flyer as much as you can - every sale helps.

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ADMISSIONS COMMITTEE REPORT

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

VOTING MEMBERS

Atherden, P.R.	Professional Officer	in Exploration	Geochemistry	Research	at	the
	Universtiy of N.S.W.	Australia.	-			

Chapman, M.A.	Manager at Analabs	(W.A.) Pty. Ltd.,	Welshpool, W.A. Australia.

Ekweozor, C.M.	Lecturer i	in Organic	Chemistry at	the	University	of	Ibadan.
			oncoming as	0110	01111010101	٠.	

Ibadan, Nigeria.

McGlasson, J.A. District geologist with Western Nuclear, Inc. Sparks, Nevada, USA.

Puchelt, H.R. Professor and Head of the Institute for Petrography and Geochemistry at the University of Karlsruhe, Fed. Rep.of Germany.

Sopuck, V.J. Research scientist with the Saskatchewan Research Council.

Saskatoon, Saskatchewan, Canada.

Sylvester, G.C. Senior geologist with C.R.A. Exploration, Fyshwick, Australia.

Tillman, P.D. Geologist with St. Joe American Corp. Tucson, Arizona, U.S.A.

Walsham, B.T. Vice-President of Freeport Exploration Co., Tucson, Arizona, U.S.A.

AFFILIATE MEMBERS

Demetriades, A. Exploration geochemist with the Institute of Geological and Mining

Research, Athens, Greece.

Gallan, W.A. Consulting geological engineer, Wyncote, Pennsulvania, U.S.A.

Wolukawu, N.W. Project geologist with Mindeco Ltd., Lusaka, Zambia.

STUDENT MEMBERS

Brugmann, G.E. Student at the University of Mainz, Mainz, Fed. Rep. of Germany .

Goulart, J.L.B. Student at the Universidade Federal da Bahia, Rio Claro-SP, Brasil.

Correction

In our last newsletter we incorrectly printed information for a new affiliate member, please note that the address for this member should be,

Sarkar, S.S. Professeur of Applied Geochemistry, University of Zaire, Kinshasa, Zaire.

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AEG SPECIAL VOLUME NO. 2: I.L. Elliott and W.K. Fletcher (eds.) 1975. Geochemical

Exploration 1974. Proceedings of the Fifth International

Geochemical Exploration Symposium, Vancouver, B.C. 720 pages.

Price Canada \$62.50/DFL 150.00

Available from: Elsevier Scientific Publishing Co., P.O.BOX 211, Jan van Galenstraat 335,

Amsterdam, The Netherlands.

AEG SPECIAL Volume No. 3: I.M.D. Bradshaw (Ed. and Compiler), 1975. Conceptual models

in Exploration Geochemistry. The Canadian Cordillera & Canadian Shield. (Reprinted from the Journal of Geochemical

Exploration, V.4 No.1) 216 pages.

Price Canada \$16.25/Dfl 39.00

Available from: Elsevier Scientific Publishing Co., P.O.BOX 211, Jan van Galenstraat 335,

Amsterdam, The Netherlands.

AEG SPECIAL VOLUME NO. 4: A.J. Sinclair, 1976, Applications and Probability Graphs in

Mineral Exploration. 95 pages.

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AEG SPECIAL VOLUME NO. 5: H.E. Hawkes, July, 1976, Exploration Geochemistry Bibliography,

January 1972 to December 1975. 195 pages.

Price \$10.00 (\$US)

Available From: The AEG Office,

P.O.BOX 523, Rexdale, Ontario. M9W 5L4, CANADA

1977 Supplement to the Bibliography of Exploration Geochemistry: H.E. Hawkes,

This is an up-date of the 1972-75 Bibliography (AEG Vol.5)

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CANADA

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A CANADIAN GEOSCIENCE COUNCIL NEWS RELEASE

DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE

The issue of radioactive waste disposal is of acute concern to all. It can generate fears that lead to illogical reasoning. Open discussions have been infrequent. To bring the subject more into the open the CGC organized a Forum last October under the chairmanship of Dr. C.R. Barnes. Experts from Canada and abroad presented papers which will be published in the next few months in the CGC 1978 Annual Report.

The Canadian waste disposal program is based on a concept of multiple barriers which in sequence includes waste solidification, containment in a cannister, surrounded by backfill, then sealed in an excavation 1000 m. or deeper in the subsurface rocks. The uncertainties are many. Is this system safe, secure and desirable? What should be done to ensure absolute minimal acceptable levels of risk of leakage over long periods of time? Is the waste to be reused in the future? Undiluted wastes generate high temperatures causing uncertainties about the composition of the cannister. Diluted wastes require larger storage chambers at a greater cost. Research into these and related matters has only recently become integrated. There is particular concern about hydrogeology. Canada's waste program is concerned with the granite pluton. Sedimentary rocks should also be considered.

Funding for the geoscience portion of the essential research required will be costly but not in comparison with the cost of a nuclear plant especially when waste disposal is becoming the Achilles' heel of the industry. The timetable to accomplish the various types of needed research may be longer than the politicians' patience. Public acceptance is crucial. All expertise must be marshalled.

Despite the problems some speakers reflected optimism that waste storage could be made acceptably safe for an extended period.

YOUR CANADIAN GEOSCIENCE COUNCIL

Your society is one of the members of the Canadian Geoscience Council. Each year the Council meets three or four times for intense one day sessions with agendas of 20 to 30 items. After the initial routine items, the balance of the agenda includes a wide range of topics. Recently these included the following subjects. The Advisory Committee to the Geological Survey has completed its terms of reference and its report was approved for publication by the Council. Similarly after discussions the Council approved an overview of its recently held Forum on Radioactive Waste Disposal. The scientific papers and overview will be published shortly.

Your Council has in the past looked into such things as the soil science in Canada and the status of research in oil exploration and, as mentioned, the Geological Survey of Canada. Currently a committee is looking into research and education in Earth Science Departments in Canadian Universities. The mandate has been upgraded to overcome earlier problems. The Council expects the report by year end and publication next year.

The Council supports the idea of decentralization of the Geological Survey but does not support siting the Precambrian Section in Thunder Bay as it does not have the mineral industry or academic base of the other decentralized sites.

The Council protested the termination of the Uranium Reconnais-sance Program in a letter to the Prime Minister. Also, representatives presented a brief to the Minister of Mines and Resources titled "Earth Sciences and Natural Resources--The Next Decade". Research funding was stressed to provide long term support for a strong mineral industry.

The Council has assisted the Atomic Energy Commission by directing qualified earth scientists to them to serve on an advisory committee. A Marine Geoscience Committee is also being formed to overcome a national shortcoming.

Matters have arisen recently on licensing, accreditation and future manpower needs of earth scientists.

In the field of education the Council continues to sponsor teacher training workshops for secondary level earth science teachers. An earth science careers booklet is now under way to overcome a long time need.

Financing is a challenge. The growing pains grant from the Geological Foundation has expired and must be replaced. Currently the funding comes from the member societies and the Geological Survey.

In summary your CGC is playing its prescribed role of coordinating diverse subjects that are somewhat beyond the scope of individual societies, of making the earth scientists' position known to the public including political ones and reviewing some of our institutions in an endeavor to contribute constructively to bettering these in various ways.