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The Professional GEOLOGIST

35th AIPG Annual National Meeting

“Professional Geology, Mineral Resources and Our Environment”

BATON ROUGE, LOUISIANA

October 3-8, 1998

Removable 12-page Meeting Booklet Enclosed

A publication of
The American Institute of Professional Geologists
WANTED - TPG ARTICLES

Instructions to Authors

The TPG accepts articles of modest for publication. Submittals should be no more than approximately 1600 words, or six typed pages, double spaced. Longer articles may be divided into parts (e.g. part 1 and part II), but this is not encouraged. Articles may be technical or professional in nature. General topics are listed below. Articles containing news of importance to professional geologists will also be considered. Except for news articles, or articles containing dated materials, submittals should be sent to AIPG headquarters twelve weeks in advance of expected publication. Some technical topic issues are planned up to one year before printing, therefore early submittals will be preferred.

Manuscripts should have the following section:

Title
Author(s) with CPG number and address
Text
Tables if included
Figures with captions if included
Appendix(es) if included
Acknowledgements
References Cited

One original and two copies of each manuscript should be submitted. Whenever possible, text should also be submitted on diskette. Headquarters uses WordPerfect 7 for Windows '95, which is preferred, but Word, ASCII, RTF, or translatable files are acceptable. The program or format of the text should be clearly marked on the diskette. Articles can also be transmitted by e-mail.

Graphics should be clear, camera-ready, line drawings whenever possible. Photographs (color or black and white) are also encouraged. Whenever possible, drawings may be submitted on diskette in .pcx, .bmp, .tif, .gif, or other standard formats.

TPG wants color slides and photographs Slides and photographs alone may be submitted for the cover. They should have a geologic theme and an informational caption.

General Topics:

Technical
Mining (January)
Petroleum Geology (March)
Hydrogeology (July)
Environmental Geology (September)
Geophysical/Engineering (November)

Professional (any issue)
Government and the Geologist
Ethics and Standards of Practice
Public Perception of Geology and Geologists
Definition, Certification, and Licensing
Practicing Geology Internationally

Other suggestions: Forensic Geology, History of Practice in a given field, Book Reviews, and Geology and the Military, Unusual Applications of Geology.

Authors are encouraged to communicate with Headquarters via mail, fax, or Internet. Send your article and/or photographs, or communicate questions to:

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The Professional GEOLOGIST

Groundwater Compliancy at Mining & Milling Sites
Clyde L. Yancey, CGP-8037

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October 3 - 8, 1998

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THE VALUE OF DEVELOPING
PROFESSIONAL RELATIONSHIPS

Geologists are typically considered an independent, self-reliant, and resourceful group of individuals. Although these attributes can certainly be considered as favorable characteristics, they do not in themselves present the most favorable of traits from a political perspective. In comparison with other professional groups, geologists are politically fragmented. This situation reflects several factors including the specialized nature within the profession, lack of political interest and savvy, and overall apathy. To exacerbate the problem, geologists in comparison with other professional groups, such as engineers and members of the legal and medical profession, make up a subordinate number of individuals. For example, there are an estimated 75,000 to 100,000 geologists in the United States; whereas, the estimated number of engineers hovers around 2,500,000. The end result being that geologists carry relatively less political weight relative to certain other professional groups. If AIGP is to better its position in influencing the regulatory and political community, then AIGP must develop a strategy to overcome this situation.

Over the years, AIGP has, in fact, set in motion several strategies and programs to counter-balance these deficiencies in order to get our message across and to better serve our profession. One of the ways in which AIGP gets its message across is through the numerous relationships it has developed and fervently maintained over the years with other organizations and groups at the state, national and international levels.

At the state level, liaison and political activities vary significantly. Sections commonly hold periodic to episodic meetings in conjunction with the numerous local geological and environmental groups and organizations with joint participation in technical and professional symposiums. Through these activities, an exchange of ideas and issues take place, allowing for AIGP to remain current on issues that affect our profession. Politically, some of the activities in which AIGP Sections are engaged include monitoring of legislative activities that impact our profession, conducting annual meetings with State Survey and regional United States Geological Survey representatives, and holding State Fly/Drive-Ins, which are conducted in a similar manner and format as the annual Washington, D.C. Fly-In. Some States such as Arizona have conducted peer review of their State Survey (TPG, March, 1998), while there have been several State Geologists that have admirably served as a Section officer or National President. The issue of State registration is an important one for such specialized areas as engineering geology and environmental geology. Many states are involved with either attempting to acquire a registration bill for geologists, or trying to maintain those that already exist, although some states currently do not have any such legislative recognition. Regardless, the degree of liaison and political activism varies from Section to Section.

At the national level, AIGP holds its annual Washington, D.C. Fly-In which allows us to meet with various federal officials and members of Congress, and organizations, to discuss specific issues germane to geology and its role in society (scheduled for May 4-6 this year). AIGP also participates in the National Council of State Legislatures, among other events of a political nature. Of lesser notoriety are the number of professional organizations and groups in which AIGP, through members of the Executive Committee and the newly reactivated Intersociety Liaison Committee chaired by Richard McPeters, maintain continued involvement and further enhance relationships. For example, as a member society of the American Geological Institute (AGI), AIGP is a strong supporter and participant in AGI's Government Affairs Program and Government Affairs Intern Program. AIGP also maintains liaison with the American Association of Petroleum Geologists (including AAPG's Division of Professional Affairs and Division of Environmental Geosciences), Advocates for Professional Judgement in Geoprocessional Practice, Geological Society of America, American Association of Professional Landmen, Association of Engineering Geologists, Association of State Boards of Geology, American Society of Civil Engineers GeoInstitute, Association of American State Geologists, Council of Engineering and Scientific Society Executives, Department of Energy, Environmental Protection Agency, Professional Firms Practicing in the Geosciences, Geoscientific Forum, International Insurance Foundation, National Groundwater Association, National Mining Association, National Science Foundation, Society of Mining Engineers, Society of Exploration Geophysicists, and the United States Geological Survey, just to name a few.

Internationally, AIGP has developed strong relationships and comity agreements with such groups as the European Federation of Geologists, the Irish Association for Economic Geology and The Geological Society (UK), allowing access for our members to professional registration, certification or chartered status in certain countries. The newly independent International Committee chaired by Dr. Robert Font, is currently expanding this committee and implementing a program to enhance intersociety relationships, and professional liaison and communications with such countries as Canada, Australia, Ireland, New Zealand, Mexico and others in Latin America.

All in all, AIGP is quite active in developing relationships with other groups and organizations to further the public's understanding of the role geology plays in society. Furthermore, it is important that AIGP continues to promote and maintain lines of communication between these groups at all levels. AIGP serves the entire geological profession, not just a part of it. Despite our fragmented nature as a professional group, our association and liaison with these groups and organizations provide all of us the opportunity to stay abreast of political and regulatory issues that are important to our profession and livelihood. Such relationships also assist in putting us on the right track to becoming a formidable political force with which to be reckoned, and becoming much more politically effective than the sum of our parts.
Groundwater Compliance at Mining & Milling Sites

Clyde L. Yancey, CPG-8037

Introduction

Typically, compliance with groundwater standards at mining and milling sites has been assumed to require some type of active remediation to return the groundwater to pre-mining water quality conditions, or more onerous prescriptive standards. Pumping and treating or pumping and evaporating have been the more common approaches implemented at many types of mine sites. The long-term costs associated with operating and monitoring this type of groundwater remediation can vary from $250,000 to more than $1 million per year depending on site conditions. At a uranium mill site currently undergoing groundwater remediation in the Powder River Basin of Wyoming, the installation and operational costs for the remediation system over a five-year period were reportedly about $3.5 million. This system included recovery and injection wells, a reverse-osmosis/ion-exchange treatment system, a lined evaporation pond, and associated piping, trenching and insulation. The operation of these remediation systems might last from about 10 to over 30 years, resulting in costs that could approach $30 million.

Mine and mill sites are commonly located in or near mineralized areas that have undergone years of subsurface exploration, development and production efforts. A great deal of extremely valuable and useful geologic, hydrologic and water quality data are, out of necessity, collected in the development and operation of a given mine. This information often resides in different operating departments of company files, might be considered proprietary or confidential, and is often overlooked as useful information for environmental compliance projects. Additionally, ecological, water use, and other related information may be collected in support of environmental impact studies, mining and milling permits: NPDES permits, annual receptor reports and operation compliance monitoring data often are not effectively utilized in the development of a groundwater compliance strategy. In many cases, the data that exist at a mining and milling facility are adequate to develop a compelling conceptual model that will support a more cost-effective groundwater compliance solution. In many cases little or no additional data are required to develop an effective groundwater compliance strategy.

The natural groundwater conditions at most mine sites are usually very poor. Mines and mills are located in areas underlain by rocks exhibiting varying degrees of mineralization that in general have poor-quality groundwater that is not used locally other than for the mining and milling operation itself or for stock watering. In these cases, the relatively small amounts of contaminants added to the groundwater system in response to mining and milling may not compromise the beneficial uses of the aquifer. Discriminating between the contaminants and the natural mineralization in the groundwater is often extremely difficult and costly. Documenting the minor contribution of contaminants due to mining and milling to the naturally poor groundwater quality can make a compelling argument to support a more cost effective groundwater compliance option than attempting to remediate the site.

The geochemical characteristics of aquifers containing mineralized zones offer unique, advantageous properties for natural attenuation of chemical constituents that might be added to, or mobilized from, the hydrogeologic system due to the mining and milling operation (Erskine, et al., 1996). The oxidation/reduction capabilities of the subsurface materials in many cases can limit the migration of harmful metals from the immediate mining and milling areas. Existing data used in simple geochemical models commonly is an effective tool for developing cost-effective groundwater compliance strategies. In only a few cases is more sophisticated geochemical modeling necessary. Even if required, the cost savings associated with avoiding active remediation can be substantial.

Finally, the mines and mills are typically located in very remote areas where only limited potential human exposure is likely. With the collection of additional, regulatorily focused ecological data, risk-based arguments for no-action or Alternate Concentration Limits (ACLs) can often be effectively developed.

Regulatory Options

Groundwater compliance for mines and mills is administered under four basic federal regulations: Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation Recovery Act (RCRA), Natural Resource Damage...
Assessments (NRDA), the Uranium Mill Tailings Radiation Control Act (UMTRCA), and applicable state regulations. The compliance standards under the various regulations are essentially equivalent and offer the same options, which are set forth in 40 CFR 192. Other strategic references on groundwater compliance within the federal regulatory realm include the ACL Guidance Parts I and II published by the U.S. Environmental Protection Agency (USEPA, 1987), and the Natural Resource Damage Assessments; Final Rule, Part II (USDOC, 1996). The various regulatory options can be simply summarized as follows:

1) active remediation (restoration to background or to prescriptive standards, such as Maximum Contaminant Levels)

2) application of ACLs (demonstration that the ACLs are protective of human health and the environment)

3) no further action (demonstration that human health and environment are protected and that beneficial uses of the aquifer are not compromised)

**Observational Approach**

When a large amount of data is available from historical sources and operations, such as at mines and milling sites, the application of the “Observational Approach” has the potential for significant cost savings in the site characterization process. The data are first summarized in the form of a “Conceptual Model,” discussed in the next section of this paper. In the case of mine and milling operations the most probable hydrogeologic, geologic, and geochemical conditions and possible contaminant exposure scenarios can usually be identified from available data. Based on a comprehensive conceptual model, a tentative groundwater compliance strategy can be selected and all future activities can be targeted to justify the selected compliance strategy. During the application of the observational approach possible deviations from the most probable site conditions are also identified.

**Figure 1. Conceptual Decision Framework for the Observational Approach**

Figure 1 illustrates the conceptual decision framework utilized in implementing the observational approach.

The iterative steps of characterizing a site, developing and refining a conceptual model, and identifying uncertainties in the conceptual model are similar in both the traditional and observational approaches. The concept of addressing uncertainties as reasonable deviations is unique to the observational approach and offers a qualitative description of data sufficiency for proceeding with site remediation on an accelerated schedule. This accelerated schedule saves time and results in cost efficiencies over the life of the project.

After the conceptual model and possible deviations are developed, a set of data collection objectives and data quality objectives (DCOs and DQOs) can be developed to focus on regulatory compliance. This approach minimizes the amount of additional data collection and ensures that the quality of the data is adequate to support the eventual use of the data (i.e. risk assessment or assessing the buffering capacity of soil). Selected data might also be required to evaluate possible deviations from the conceptual model. Preparation of the conceptual model report and target groundwater compliance strategy normally takes from 1 to 3 months and the cost might range from $30,000 to $60,000. The amount of additional data and the cost of those data depend on the quality and amount of data incorporated into the conceptual model report.

**Conceptual model development**

The development of a conceptual model requires an understanding of current and past conditions and operations. The report should include a narrative and a supporting set of maps, figures, and tables. At a minimum the narrative should include a summary, historical information, contaminant source characterization, migration pathway descriptions, identification and discussion of environmental receptors, and a review of any necessary regulatory compliance (ASTM, 1995).

A quantitative characterization of the groundwater flow system might or might not be necessary to describe the migration pathways of contaminants. To determine if sophisticated mathematical modeling is necessary to successfully support the selected method of compliance, a qualitative characterization of the unsaturated and saturated flow systems is a useful first step. An integrated, step-wise approach to qualitative and quantitative characterization should include: 1) problem definition and development of a data base, 2) surface characterization, 3) geologic and geochemical characterization, 4) hydrologic characterization, and 5) groundwater system characterization (Kolm, 1996).

The conceptual model must consider natural variations in the flow system, plus those variations due to anticipated and historical land use, such as pumping, reinjection and slurry waste disposal, and the presence, mobility, and persistence of contaminants, and their interactions with earth materials.
Assuming that a mathematical groundwater flow or solute transport model is required, this approach will provide or identify the required data that must be collected.

Data requirements

As stated earlier, the data required are likely present in company files, previous engineering or consulting reports, and published reports or available databases from state and federal agencies. This information should be collected into a central location or database for the staff or consultant that will be preparing the conceptual model and groundwater compliance strategy document. This data collection should be completed prior to developing any site characterization plan that could potentially duplicate already existing data.

Cost Considerations

In almost all cases where active groundwater remedial measures are currently in place, a complete re-evaluation of the corrective measure utilizing all available site-related data can result in opportunities to save money. These opportunities may be as minor as a reduction in the number of constituents required for monitoring, or they may be as significant as submitting a revised, “no further action” compliance strategy plan or ACL application.

Remedial action budgets should contain a line item addressing an evaluation of the site-specific groundwater corrective action using the observational approach and a comprehensive site conceptual model, containing all appropriate data collected through the historical operation of the site as well as that contained in regional studies. The cost directly depends upon the hydrogeologic complexity of the site, although $30,000 to $60,000 is a common range based on the author’s experience.

Summary and Conclusions

When evaluating the costly, long-term implications associated with the traditional pump and treat, or pump and evaporate, groundwater corrective action scenarios, a closer look at alternatives such as ACLs or other negotiated compliance strategies should be considered. This evaluation should take place even if an active corrective action program is operating. The results of re-evaluating current groundwater compliance strategies could provide relief to the recurring costs associated with active corrective actions. The environmental manager for a mining company should continually re-evaluate corrective action alternatives.

A groundwater compliance strategy should be approached and developed within the framework of the observational approach, integrating all available site-specific regulatory, programmatic and technical components, to produce a conceptual model of the site. The conceptual model provides a sound technical basis for negotiations, as well as justification for proposing any changes to existing corrective actions.

The attractiveness of this approach is that the data required to develop the conceptual model most likely exists within current site databases. Additional water quality and ecological data may be required to establish the site conceptual model. Once regulatory acceptance of the model is achieved (a key point), a compliance strategy, such as risk-based ACLs or natural attenuation of the plume, can be effectively negotiated with the regulators. Geologists working on any sort of site characterization or remediation, not just mining and milling sites should apply the concepts described in this paper.

References


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Volunteers Sought for Ad Hoc Committee on Climatic Change

Unless you have spent the past 5 years or so under your favorite rock, the controversy over “global warming” and the “greenhouse effect” is known to you and to most geologists. Now, in the post-Kyoto period, the controversy is coming to a head politically. Those who have made the effort to inform themselves on “greenhouse effect” issues are aware that the information being used by individuals, mostly in the atmospheric science community, to support the “conclusions” of their computer-derived models has been drawn in a highly selective manner from a much broader data base. Information that suggests alternative hypotheses is rarely mentioned and often ignored. However, many eminent atmospheric scientists are at odds with these “conclusions.” Given the politicization of the issue, it will become increasingly visible during 1998-2000.

Geologists have a unique view of global climatic variation, both warming and cooling, during the past 750 million years and especially during the Mesozoic and Cenozoic. Considerable scientific research, investigation and speculation exists concerning the multiple possible causes of warming and cooling. The literature base is large, if you know where to look. However, our unique knowledge is unknown to the general public and, probably, the K-12 community. The latter is a focus for heavy environmentalist indoctrination concerning the inevitability of global warming. Yet, typical of geologists, we mumble among ourselves about the bad science/pseudoscience involved and rarely if ever reach out to the public.

The national Executive Committee will consider forming an Ad Hoc Committee to enter the climatic change debate at the 9 May meeting. Such an effort might produce a Policy, speaker bureaus and result in one or more new publications, which the Institute really needs if a dues increase is to be avoided. Volunteers are sought for this committee, preferably those with some existing knowledge of the issue and who are willing to engage in committee activities on a scientific, non-partisan basis. If you are interested in joining such a committee, please contact Headquarters by fax, e-mail or letter, and include a brief mention of your existing knowledge in this area.

THE WAY OF SCIENCE IS A JOURNEY TOWARD THE TRUTH; THIS JOURNEY HAS NOT YET ENDED.

Grandfather Period for Licensure in Wyoming ENDS JUNE 30, 1998!

The “grandfather application period” established by the 1997 Wyoming Legislature will end on June 30, 1998. During this period geologists who meet the minimum statutory requirements noted below, may apply for licensure without taking any examinations. Also, geologists who meet the statutory requirement for education but lack the required experience, may apply for certification as geologists-in-training without an examination.

The minimum requirements for licensure as a professional geologist are:

**Education:** A bachelor’s degree in geology or another degree program, but with a minimum of 30 semester hours or 45 quarter hours in geology course work; and

**Experience:** At least 48 months of active professional experience of a character acceptable to the Board.

Applications for licensure during the grandfather period may be requested by mail, phone, or e-mail:

WY Board of Professional Geologists
P.O. Box 3008
Laramie, WY 82071-3008
(307) 766-2490
e-mail: wbpg@wsgs.uwyo.edu

The Wyoming Geologists Practice Act now requires the licensure of anyone wishing to practice geology before the public. “Practice before the public” is defined as the performance of geological services or work including consultation, investigation, evaluation, planning, preparation of geologic reports and maps, the inspection of geological work, and the responsible supervision of geological services or work, the performance of which is relevant to public welfare or the safeguard of life, health, property, and the environment, unless exempted under the act.
AGI GOVERNMENT AFFAIRS PROGRAM MONTHLY UPDATE

Update prepared by David Applegate, John Dragonetti and Kasey Shewey

• Geotimes Special Issue: Geoscience and Public Policy
• It's A Mad Mad Mad Mad Senate Budget
• NIE Receives Low Marks from National Science Board
• Low Oil Prices Prompt Senate Action on Strategic Petroleum Reserve
• President Unveils Electricity Deregulation Plan
• Legislation Moves Ahead on Women in Math and Science
• Interns and Externs
• Tentative Schedule of Upcoming GAP Activities
• New Material on Website

Geotimes Special Issue: Geoscience and Public Policy

The third annual Geotimes special issue (April 1998) on Geoscience and Public Policy is at your newsstands now. Guest edited by GAP Director David Applegate, the issue contains a Comment by Science Committee Vice Chair Vern Ehlers (R-MI) on science education policy, and articles on the Valles Caldera by Senator Jeff Bingaman (D-NM), U.S.-Japan earthquake loss prevention strategies by Art Ziever, of FEMA, regional natural resource forums by Paul Dresler and Mark Schaefer of the Department of the Interior, and a review of a presidential advisory committee report on energy R&D by Bill Fisher. The issue also includes the final installment in a series of articles on how to communicate with Congress by former Congressional fellow Joe Briskey, this one focused on constituents and the media.

It's A Mad Mad Mad Mad Senate Budget

Yesterday, the Senate passed its budget resolution for fiscal year 1999. Like the President’s request, the Senate resolution would balance the budget for the first time in 30 years. The good news is that the Senate passed an amendment introduced by Senator Jeff Bingaman (D-NM) to double federal spending on civilian science and technology between FY 1998 and FY 2008. The bad news is that the language is non-binding, only expressing "the sense of the Senate," and that the actual numbers in the resolution tell a different story, cutting non-defense R&D by more than $3.5 billion from current levels between FY 1999 and FY 2003. This level is only $37 billion less than called for in S. 1305, the bill closely associated with the spirit of the Bingaman amendment.

NIE Receives Low Marks from National Science Board

Last year, NSF was directed by Congress to study the feasibility of establishing a National Institute for the Environment (NIE) within their agency. The report, scheduled to be completed by April 1, has not yet been released. Dr. Richard Zare, chair of the National Science Board, the governing body of NSF, released the Board’s position on an NIE on March 20. He stated that the NSB “agrees that there is need for expanded environmental research, education, and assessment,...but a separate organization or entity would not be an effective means of achieving the intellectual goals connected with the proposed NIE because it could isolate environmental research from related science and engineering research, as well as be duplicative of the existing policy and management structure and entail unnecessary cost.” Although the NSB position is a blow to NIE supporters, it may not represent the end of their efforts. Congress can still dictate the establishment of an NIE within NS. Moreover, Dr. Rita Colwell, who has been nominated to replace Neal Lane as NSF Director, is a member of the board of the Committee for the NIE.

Low Oil Prices Prompt Senate Action on Strategic Petroleum Reserve

Although consumers no doubt enjoy paying less than a dollar per gallon at the pump, low oil prices have prompted a crisis in the petroleum industry, particularly among small independent producers. On March 26th, in an effort to avoid further depressing prices, the Senate unanimously adopted an amendment by Senate Energy and Natural Resources Committee Chairman Frank Murkowski (R-AK) that would repeal the planned sale of $207.5 million worth of oil from the nation’s Strategic Petroleum Reserve. The sale previously was approved as part of the fiscal year 1998 appropriations process and was the fourth such sale since 1995. Murkowski and Sen. Jeff Bingaman (D-NM) had fought a losing battle to stop the original sale last fall, warning that repeated sales from the SPR at a time of record oil imports represent unsound policy. The amendment repealing the sale was attached to S. 1768, an emergency supplemental appropriations bill to pay for El Nino-related natural disaster relief and for overseas peacekeeping efforts.

President Unveils Electricity Deregulation Plan

The Clinton Administration has responded to the debate roaring in Congress on how to restructure the electricity industry. Promising consumer savings of $20 billion per year, the President’s plan would require states to decide by January 1, 2003 whether or not to adopt a system allowing consumer choice of energy suppliers. The plan would also create a $3 billion "public
benefits fund" to match state spending for research and development in renewable energy and energy efficiency and for assistance to low-income consumers. The proposal would create a system that would set limits on emissions of nitrogen oxides and allow power companies to trade emissions credits. The Administration's plan also emphasizes recovery of stranded costs, reliability, and consumer information. More information on the plan is available on the GAP website.

Legislation Moves Ahead on Women in Math and Science

The House Science Subcommittee on Technology passed H.R. 3007, the Advancement of Women in Science, Engineering, and Technology Development Act by voice vote on March 26th. Introduced by Rep. Connie Morella (R-MD) last September, the bill would establish a commission to study the barriers that women face in science, engineering, and technology and issue recommendations. The bill would also direct the NSF to study the educational opportunities available to women who want to enter those fields. Within a year, NSF would issue recommendations to Congress on ways to improve educational opportunities for women. H.R. 3007 has been endorsed by the American Association of Engineering Societies, American Chemical Society, and the Institute of Electrical and Electronic Engineers—USA.

Interns and Externs

The application deadline for the AGI/AIPG summer internship has passed, and we received approximately 25 applicants. We will narrow down the field to a short list within the next few weeks, then make final selections by early May. We hope to have 3 students on board in May for 12 weeks each. We also welcome having students here for shorter periods, such as their spring break or holiday vacation. Josh Chamot, a senior geology major at William and Mary, recently joined GAP for a week as a "shadow" to see what working in public policy is like. During his week, he attended several Congressional hearings, one of which he summarized for the AGI website.

Tentative Schedule of Upcoming GAP Activities

The GAP Advisory Committee met on February 27, 1998 at AGI headquarters in Alexandria, Virginia. Minutes from the meeting are being distributed to committee members and will be available on the AGI website early next week. The next meeting will be an informational one at the AAPG annual meeting in Salt Lake City in May on Saturday, May 16th from 2-6 pm in Salon B of the Marriott.

- April 2-3, GSA Geology & Public Policy Cmte. Mtg., Washington, DC
- April 4, AGI Congr. Fellow Selection Cmte. Mtg., Alexandria, VA
- April 14, PPP 2000 Forum on Natural Disaster Reduction, Washington, DC
- April 30-May 1, AAAS Sci. & Tech. Policy Colloquium, Washington, DC
- May 3-6, AIPG Washington Fly-In, Washington, DC
- May 16, GAP Advisory Committee Meeting, Salt Lake City, UT
- May 19, AAPG DPA Policy Forum, Salt Lake City, UT
- May 20, CNSF Congressional Exhibition, Washington, DC

New Material on Website

The following updates and reports were added to the Government Affairs portion of AGI's website <www.agi-web.org> since the last monthly update:

- Update and Hearing Summary on H.R. 3007, the Advancement of Women in Science, Engineering, and Technology Development Act (3-18-98)
- Senate Appropriations Hearing on DOE Energy Research, Energy Efficiency, and Renewable Energy Programs Budgets (3-17-98)
- Update on Superfund Legislation (3-17-98)
- Update on Sea Grant Reauthorization (3-16-98)
- House Hearing on Maintaining the Interest of Young Kids in Science (3-13-98)
- Report on the Third International Mathematics and Science Study (3-13-98)
- Update and Hearing Summary on Clean Water Act Issues (3-9-98)
- Update and Hearing Summary on Global Climate Change (3-9-98)
- AGI Testimony on FY 1999 Appropriations for USGS and DOE Fossil Energy (3-4-98)
- Update on the National Institute for the Environment (3-3-98)
- Update on the Grand Staircase-Escalante National Monument (3-3-98)
- Update and Hearing Summary on Public Land Sovereignty Issues (3-2-98)
- Geotimes Political Scene (3/98): Congress Looks to a Limited Slate of Issues for 1998

This monthly update goes out to members of the AGI Government Affairs Program (GAP) Advisory Committee as well as the leadership of AGI's member societies and other interested geoscientists as part of a continuing effort to improve communications between GAP and the geoscience community that it serves. Prior updates can be found on the AGI website under "Government Affairs" <http://www.agi-web.org>. For additional information on specific policy issues, please visit the website or contact us directly at <govt@agi-web.org> or (703) 379-2480.
35th AIPG Annual National Meeting

Baton Rouge, Louisiana

October 3-8, 1998

“Professional Geology, Mineral Resources and Our Environment”

Hosted by

Louisiana Section - AIPG

and

Baton Rouge Geological Society

Convention Headquarters: Baton Rouge Hilton
The American Institute of Professional Geologists
35th ANNUAL MEETING
BATON ROUGE, OCTOBER 3-8, 1998
P.O. Box 19151, Baton Rouge, LA 70893

"Professional Geology, Mineral Resources and Our Environment"

WELCOME TO LOUISIANA!!

The Louisiana Section of AIPG, in cooperation with the Baton Rouge Geological Society, is proud and happy to host the 35th Annual AIPG National Meeting. We cordially invite you to join us in making this meeting a grand success.

We will hold the meeting in Baton Rouge, Louisiana's capital city, the nation's 40th largest city. "Le Baton Rouge" was so named in 1699 by Pierre LeMoyne, Sieur d'Iberville, for a red pole (or stick) dividing the hunting grounds of two Indian tribes. The locale was near the present site of the castle-like Old State Capital, standing on the Pleistocene Prairie Terrace which forms the east valley wall of the mighty Mississippi River. The "new" capital building is the tallest in the U.S., with an observation deck offering a panoramic view of the city. We have the fourth largest and busiest port in the nation. Baton Rouge has a colorful history of eleven flags that have flown over the city. It is distinguished with a strong blend of varied cultures and heritages, spanning two centuries: French, English, Spanish, Creole, and Cajun.

We have organized a well-rounded program that includes three outstanding short courses, two exciting field trips, and ample array of technical sessions focusing on the theme: "Professional Geology, Mineral Resources, and Our Environment." Evening activities range from an ice-breaker at the Hilton to "A Night at the Belle" (the Belle of Baton Rouge River Casino), and the Annual Awards Banquet offering fine South Louisiana cuisine.

We have planned very interesting spouse activities that will offer a rainbow of opportunities to enjoy matchless scenes and music, and to experience the unique cultural heritage in the heart of Louisiana. So, bring your spouse and "come see us" this fall for a memorable week in the fascinating Cajun Country of South Louisiana.

Madhurendu B. Kumar
General Chairman

David E. Pope
Vice-Principal, President

Convention Hq: Baton Rouge Hilton Hotel, 5500 Hilton Ave., B.R., LA 70808, Tel. (504) 924-5000
Program

Theme: Professional Geology, Mineral Resources and Our Environment
Date: October 3 - 8, 1998
Place: Baton Rouge Hilton

Saturday, October 3
8:00 a.m. - 9:00 a.m. Short Course Registration
9:00 a.m. - 5:00 p.m. Short Course #1 (Business Management-Marketing/Contracts)
9:00 a.m. - 4:00 p.m. Short Course #2 (Professional Geological Witnessing)
10:30 a.m. and 2:30 p.m. Coffee Breaks

Sunday, October 4
8:00 a.m. - 5:00 p.m. Annual Meeting Registration
8:00 a.m. - 9:00 a.m. Short Course Registration
9:00 a.m. - 5:00 p.m. Short Course #1 (continued)
9:00 a.m. - 5:00 p.m. Short Course #3 (Practical Geostatistics)
10:30 a.m. and 2:30 p.m. Coffee Breaks
7:00 a.m. - 8:00 a.m. National Executive Committee Breakfast
8:00 a.m. - 5:00 p.m. National Executive Committee Meeting
1:00 p.m. - 5:00 p.m. Spouse Tour #1 (Mall of Louisiana)

Monday, October 5
8:00 a.m. - 5:00 p.m. Annual Meeting Registration
9:00 a.m. - 4:00 p.m. Hospitality Suite Open
7:00 a.m. - 9:00 a.m. Combined 1998/1999 Advisory Board Breakfast Meeting
7:00 a.m. - 9:00 a.m. AIPG Foundation Trustee Breakfast Meeting
9:00 a.m. - 7:00 p.m. Geologic Field Trip #1 (Salt Dome Areas)
1:00 p.m. - 5:00 p.m. Spouse Tour #2 (Old and New State Capitols)
6:00 p.m. - 8:30 p.m. Icebreaker, Exhibits Open

Tuesday, October 6
8:00 a.m. - 5:00 p.m. Annual Meeting Registration
9:00 a.m. - 4:00 p.m. Hospitality Suite Open
7:00 a.m. - 9:00 a.m. 1999 Advisory Board Breakfast Meeting and Election
7:00 a.m. - 9:00 a.m. Breakfast for all speakers
8:00 a.m. - 5:00 p.m. Exhibits open
9:00 a.m. - 4:00 p.m. Spouse Tour #3 (Mud Painting/Bay View on the Bayou)
9:00 a.m. - 10:20 a.m. General Session - Opening Remarks, Keynote Speaker
10:20 a.m. - Noon Technical Session #1
1:30 p.m. - 3:30 p.m. Technical Session #2
3:30 p.m. Coffee Break
3:45 p.m. - 5:00 p.m. Technical Session #3
7:00 p.m. - Midnight A Night at Riverboat Casino
Program (continued)

Wednesday, October 7
8:00 a.m. - 5:00 p.m. Annual Meeting Registration
9:00 a.m. - 4:00 p.m. Hospitality Suite Open
7:00 a.m. - 9:00 a.m. 1998-1999 National Executive Committee Breakfast Meeting
7:00 a.m. - 9:00 a.m. Past Presidents Breakfast
8:00 a.m. - 2:00 p.m. Exhibits Open
9:00 a.m. - 4:00 p.m. Spouse Tour #4 (Magnolia Mound/Nottoway Plantations)
9:00 am. - 11:30 a.m. Technical Session #4
2:30p.m. - 5:00 p.m. Technical Session #5
Noon - 2:00 p.m. Luncheon and Annual Business Meeting
10:30 a.m. and 3:30 p.m. Coffee Breaks
7:00 p.m. - 9:00 p.m. Annual Awards Banquet

Thursday, October 8
6:30a.m. - 7:30 a.m. Field Trip Attendees Breakfast
7:30 am. - 5:00 p.m. Geologic Field Trip #2 (Horizontal Wells/Petroleum Field)

General Session

"Professional Geology, Mineral Resources and Our Environment"
Tuesday, October 6, 1998 — 9:00 am - 10:20 am

Welcome and Introduction
Madhurendu B. Kumar, General Chairman
David E. Pope, President, Louisiana Section AIPG

Greetings
Stephen M. Testa, President AIPG

Welcome to Baton Rouge
Tom Ed McHugh, Mayor

Keynote Speaker
William L. Fisher, Leonidas T. Barrow Centennial Chair in Mineral Resources,
The University of Texas at Austin,
Fossil fuels and global warming: from running out to fouling up.
TECHNICAL SESSION 1
Geopolitical

Tuesday, October 6 – 10:20 am - 12:00 noon

William Jenkins, Chancellor, Louisiana State University - Administrative and educational challenges faced by a state university in a new technological era.

Charles J. Mankin, Director and State Geologist, Oklahoma Geological Survey - State Geological Surveys: the more things change, the more they stay the same.

Dale Givens, Secretary, Louisiana Department of Environmental Quality - Risk based analysis as related to geological remediation in Louisiana.

Steve Mathis, Senior Project Manager, U.S. Army Corps of Engineers - Partnership to change the physical landscape of coastal Louisiana.

TECHNICAL SESSION 2
Economic Geology, Petroleum Geology, Resources for the 21st Century

Tuesday, October 6 – 1:30 pm - 3:30 pm

James M. Coleman, Vice Chancellor for Research, Louisiana State University - Spindletop to deepwater.

Brian E. Lock, Chairman, Department of Geology, University of Southwestern Louisiana - Geology and history of South Louisiana salt mines.

Allen Lowrie, Independent Geologist - The next hydrocarbon resource: methane hydrates in the deepsea.

Thomas Fails, Independent Petroleum Geologist - Generating and selling oil and gas deals.

Anthony J. Duplanchin, Jr., Chief, Surface Mining Program, Louisiana Department of Natural Resources - Lignite mining in Louisiana: fifteen years down the road.

TECHNICAL SESSION 3
Professional Ethics & Practices Live

Tuesday, October 6 – 3:45 pm - 5:00 pm

David M. Abbott, Jr., AIPG’s Ethics Chair, will chair a discussion of professional ethics and practice issues. Participants will be expected to contribute their thoughts on issues of interest. This will not be a session of formal presentations; it will be an open, informative, thought-provoking, and fun discussion. While topics which have been presented in the PE&P column in “The Professional Geologist” provide a starting point, other issues topics can be addressed. Mr. Abbott will be assisted by one or two additional discussion leaders. If you like the column, you’ll love it live.

TECHNICAL SESSION 4
Environmental Geology, Hydrology - Innovations and Applications

Wednesday, October 7 – 9:00 am - 11:30 am


Robert W. Whalin, Director, U.S. Army Engineer Waterways Experimental Station (WES) - Borderless remediation: necessitated by regional hydrogeology.


Bradford C. Hanson, Geologist Supervisor, Louisiana Geological Survey - Groundwater in Louisiana: valuable assets in a global economy.

William H. Schramm, Hydrogeologist, Louisiana Department of Environmental Quality - Integrating multiple remedial technologies to mitigate chlorinated hydrocarbon impacted aquifers at Exxon Chemicals Baton Rouge Polyolefins plant.

Mark Distefano, Technical Associate, IT Corporation - Late Pleistocene fluvial deposits at a site in Southwest Louisiana.

Donald W. Davis, Administrator, Louisiana Applied and Educational Oil Spill Research and Development Program - The history of Louisiana’s oil and gas industry and its cumulative impacts.

TECHNICAL SESSION 5
Coastal and Wetlands Geology - Processes, Preservation and Restoration

Wednesday, October 7 – 2:30 pm - 5:00 pm

Bill Good, Administrator, Coastal Restoration Division, Louisiana Department of Natural Resources - The Caernarvon diversion project: a manager’s perspective.

Jim Rives, Assistant Administrator, Coastal Management Division, Louisiana Department of Natural Resources - An overview of coastal zone management in the United States with emphasis on the Louisiana coastal resources program.

Harry Roberts, Professor, Coastal Studies Institute, Louisiana State University - Linkages between Atchafalaya river sedimentation, delta building, and chenier plain progradation.

Sherwood M. Gagliano, President, Coastal Environments, Inc. - A new major distributary for the Mississippi river deltaic system.

Oscar K. Huh, Director, Earth Scar Laboratory, Coastal Studies Institute, Louisiana State University - Satellite oceanography of surface waters: Gulf of Mexico.
SHORT COURSE #1
Management Development Program for Geologists and Related Professionals

Saturday, October 3, and Sunday, October 4
Pre-registration: members $300, non-members $350

Marketing and Contracts, is Session Three of the five-session program in the principal subjects of business management, jointly developed between AIPG and the Colorado School of Mines. Anyone in a geologic or related profession who desires a basic foundation in the subject will benefit from the program. The skills gained should immediately enhance an individual’s professional credibility, promotability, and overall value to their business organization.

This two-day session will cover: Marketing and Contracts; intangibles and tangibles; identifying and analyzing the market; identifying and analyzing the competition; developing a marketing strategy; and contract administration. CEUs will be available optionally from the Colorado School of Mines.

The instructor of the course is David E. Fletcher, Ph.D. He is the Director of The Executive Program, and a professor of Mineral Economics at the Colorado School of Mines. He received his Ph.D. and MBA from the University of Denver. He also has a Master of Arts in Education and a Bachelor of Arts in Business Administration and Banking from Colorado College. In addition to his academic career he has significant experience as an entrepreneur and industrial consultant. His firm, Management Skills, specializes in executive and organizational development. Previously he served as an executive vice president of Epoch Energy doing businesss in the international petroleum industry.

SHORT COURSE #2
The Technique of Professional Geological Witnessing with Emphasis on Louisiana Oil and Gas Matters

Saturday, October 3,
Preregistration: members $60, non-members $70

Instructors:
W.H. Robbins - Expert oil and gas witnessing in state and federal courts.
Randall C. Songy - Louisiana compulsory oil and gas unitization.
Frank W. Harrison, Jr. - Expert witnessing before oil and gas unitization boards.

The course will cover expert witnessing in oil and gas matters both before boards, and in the courtroom. Emphasis will be on forced unitization in Louisiana, and the responsibility and technique of appearing before the Department of Conservation as an expert witness. Mr. Randy Songy, Louisiana Attorney, will give an overview of Louisiana’s unique oil and gas laws and conservation laws. Mr. Bill Robbins will discuss techniques and procedures for oil and gas experts appearing in courts in Louisiana. At the conclusion of the course, a mock Louisiana Office of Conservation hearing will be held.

Please note that although AIPG will supply certificates of course completion, all participants agree it will be their exclusive responsibility to obtain their own CEU’s from their own respective organizations.

SHORT COURSE #3
Practical Geostatistics for the Professional Geologist

Sunday, October 4
Pre-registration: members, $160, nonmembers $185

Geological and environmental data present problems not commonly encountered in classical statistics. To deal with these problems, particularly the problem of spatial correlation, a subfield of statistics identified as geostatistics has developed. This course will develop the main concepts of geostatistics through hands-on analysis. Geostatistical software (GEO-EAS) developed by the U.S. Environmental Protection Agency for analyzing environmental data will be used extensively. We will develop the theoretical background as necessary, but focus on applications. The text provided with the course is An Introduction to Applied Geostatistics, by E.H. Isaaks and R.M. Srivastava, Oxford University Press, 1989.

The instructor of the course is Dale Easley, Ph.D. Dale completed his Ph.D. in 1989 at the University of Wyoming. His expertise is in ground-water modeling and geostatistics. Dale has been at the University of New Orleans since 1989 except for the 1994-95 academic year, which he spent in Qatar on a Fulbright Fellowship.

Please note that although AIPG will supply certificates of course completion, all participants agree it will be their exclusive responsibility to obtain their own CEU’s from their own respective organizations.
Geologic Field Trips

TRIP #1
Saltdomes Field Trip

Monday, October 5, 1998 - all day trip

Departure: Lobby of the Hilton Hotel
Leaders: Drs. Whitney Autin, Geology, and Rebecca Saucers, Archaeology, Louisiana State University
Cost: $45/50.00, includes box lunch
Limit: 40 Participants

Cross the Atchafalaya River and swamp in vans viewing Holocene river morphology and Pleistocene terrace landscapes. The first stop will be a visit to the Jefferson Island salt dome and Lake Peigneur, site of the 1980 disaster when an oil rig drilling in the lake penetrated one of the galleries of the Diamond Crystal salt mine. Penetrating the mine drained the lake, caused landslides along some edges of the lake, and destroyed an oil rig, a salt mine, and a local way of life. The second stop will be Avery Island, home of Tabasco Sauce, the Jungle Gardens, and a bird sanctuary. The group will tour the “Island” observing the surface morphology and several archaeological sites. The group will return in time for the evening ice breaker party.

TRIP #2
Horizontal Wells/Petroleum Field Trip

Thursday, October 8, 1998 - all day trip returning about 5 pm

Departure: Lobby of the Hilton Hotel
Leader: Dale Nyman, Field Trip Chairman
Cost: $40/45, includes breakfast and lunch
Limit: 25 Participants

Travel in vans across the Mississippi River to Dow Chemical Company’s Louisiana Division facility at Plaquemine, Louisiana. A morning lecture and tour of the chemical plant will introduce the participants to Dow’s approach to site characterization and ground-water remediation using horizontal wells. Following the visit to Dow, the group will return across the Mississippi River and travel north through the rolling hills that form the east bank of the river. Lunch will be at the Port Hudson facility of the Amoco Production Company with a feast of Texas Bar-B-Q. Following lunch there will be a presentation of the local geology and history of the oil field concluding with a tour of the facility. The Port Hudson field produces from a salt-cored anticline that formed in the Cretaceous Tuscaloosa Formation. The structure was interpreted from 2-D and 3-D seismic surveys, which also provided a 100% success rate for the wells drilled. The field has produced more than 500 BCF of natural gas and 50 million barrels of oil during the past 20 years.

— Spouse Activities —

HOSPITALITY ROOM HOURS

Monday, October 5: 9:00 a.m. to 4:00 p.m.
Tuesday, October 6: 9:00 a.m. to 4:00 p.m.
Wednesday, October 7: 9:00 a.m. to 4:00 p.m.

Please wear your convention badge for admittance to the Hospitality Room and other events.

SPOUSE TOURS

All spouses tours will start and end at the lobby of the Hilton Hotel. All tours will depart promptly on schedule. Please register for tours no later than September 1, 1998. Tours may be canceled for lack of sufficient numbers of registrations.

SPOUSE TOUR #1
Mall of Louisiana Shopping Expedition

Sunday, October 4, 1:00 p.m. - 5:00 p.m.

Shop at Louisiana’s newest shopping mall, the spectacular Mall of Louisiana. Choose from over 120 unique specialty shops and major department stores, or simply stroll along the wide, two-story promenade. There is something for everyone here! When you tire of shopping, take a break at one of the fine coffee shops or ride on an authentic carousel inside the mall. Roundtrip transportation provided.

COST: $10.00 per person - Limited to 25 participants
— Spouse Activities

SPOUSE TOUR #2
Old and New State Capitol Tours

*Monday, October 5, 1:00 p.m. - 5:00 p.m.*

You will get more than a glimpse of Louisiana's colorful past when you step into the Old State Capitol. This 150 year-old grand "Castle on the Mississippi" is famous for its Gothic architectural style and features a newly-restored stained-glass window. Inside you will encounter the heroes and rogues who shaped our state's history, beginning with the earliest Spanish and French explorers. After you have witnessed our past, you will travel into Louisiana's present and future as you tour the new State Capitol, the "tallest state capitol in the United States". From the observation deck high atop our skyscraper capitol you will have a terrific bird's eye view of Baton Rouge. If you are afraid of heights you can browse in the gift shop. Tour leaves from the希尔tor Hotel at 1:00 p.m.

**COST:** $15.00 - Limited to 25 participants

SPOUSE TOUR #3
Louisiana Mud Painting and Bayview on the Bayou Tour

*Tuesday, October 6, 9:00 a.m. - 4:00 p.m.*

First you will visit the studio of famed local artist Henry Neubig, who paints authentic scenes of rural Louisiana with pigments made from alluvial soils found across our state. You will be amazed at the many colorful hues obtained from the various days he uses to create warm and charming pictures of everyday life. This is a demonstration you do not want to miss and you will have a chance to buy something truly unique!

Next you will experience the real Louisiana when you visit Bayou Country just 30 minutes from Baton Rouge. Join us for a zesty Cajun buffet with "all the trimmin's", "foot stompin'" Cajun music and a swamp tour on Colyell Bay in rustic French Settlement. Admire our unique flora and fauna and see handmade arts and crafts by local artists. Please dress comfortably, take along a sweater or light jacket, and enjoy some good old Southern Hospitality the Cajun way!

**COST:** $45.00 - Limited to 25 participants

SPOUSE TOUR #4
Magnolia Mound & Nottoway Plantation Tour

*Wednesday, October 7, 9:00 a.m. - 4:00 p.m.*

Shades of Scarlet O'Hara! Visit beautiful Magnolia Mound Plantation, the area's oldest plantation house and learn about the Creole heritage of south Louisiana. You will observe an authentic open-hearth cooking demonstration and view historic buildings and a working herb and vegetable garden.

Then you'll sashay down the road to famous Nottoway Plantation for lunch. After you have dined on fine southern cooking you will tour a real "American Castle", the Nottoway Plantation house. This is one of the largest and finest of mansions of the Old South. Stroll around the landscaped grounds, or slip over to the levee and watch the mighty Mississippi River roll by. See up close how the southern gentry really lived in the Antebellum era. Please notify us if you have a specific food allergy.

**COST:** $45.00 - Limited to 25 participants

The Professional Geologist • MAY 1998
## PRE-REGISTRATION FORM
### 35TH ANNUAL AIPG MEETING
#### BATON ROUGE, LOUISIANA : October 3-8, 1998
#### "PROFESSIONAL GEOLOGY, MINERAL RESOURCES AND OUR ENVIRONMENT"

**NAME:** __________________________  **SPONSOR:** __________________________
**COMPANY/INSTITUTION:** __________________________________________________
**ADDRESS:** _______________________________________________________________
**TELEPHONE:** __________________________  **FAX:** __________________________

### PRE-REGISTRATION FORM
#### PER PERSON
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<th>Registrations</th>
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<th>On Site After 9/2/98</th>
<th>Number of Persons</th>
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<td>STUDENTS</td>
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<td>(Technical Sessions &amp; Icebreaker)</td>
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<td>3. Annual Awards Banquet*</td>
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<td>4. Spouse Tour #1</td>
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<td>Mall of Louisiana, Sunday 4th, 1-5PM</td>
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<td>5. Spouse Tour #2</td>
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<td>Old and New State Capitals, Monday 5th, 1-5PM</td>
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<td>6. Spouse Tour #3, Lunch</td>
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<td>Mud Painting/Bay View on the Bayou, Tuesday 6th, 9AM-4PM</td>
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<td>8. Geologic Field Trip #1</td>
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<td>Salt Dome Areas, Monday 5th, 9AM-7PM</td>
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<td>9. Geologic Field Trip #2, Breakfast/Lunch</td>
<td>$40.00</td>
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<td>Horizontal Wells/Petroeum Field, Thursday 8th, 7AM-5PM</td>
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<td>10. A Night at a Riverboat Casino</td>
<td>$20.00</td>
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#### SHORT COURSES: (Meeting registration not required)
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<tr>
<td>1. Business Management/Marketing/Contracts</td>
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<td>Saturday 3rd and Sunday 4th, 9AM-5PM</td>
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<td>CEU’S-Colorado School of Mines</td>
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<td>2. Professional Geological Witnessing</td>
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<td>3. Practical Geostatistics for the Professional Geologist</td>
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<td>Non-Member</td>
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**Pre-Registration Deadline: Before 9/2/98**

**TOTAL AMOUNT PAID:** __________________________

**MAKE CHECKS PAYABLE TO: LOUISIANA SECTION OF AIPG**
**RETURN FORM WITH PAYMENT TO: LOUISIANA SECTION OF AIPG**
P.O. Box 44312  Baton Rouge, Louisiana 70804-44312
**TELEPHONE:** 504-343-5501  **FAX:** 504-343-4418

**Refund Policy:**
- **100% through 9/2/98**
- **50% 9/3/98 through 10/1/98**

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*Unregistered guests welcome:
- $20.00 each Luncheon
- $30.00 each Banquet
GREATER BATON ROUGE

Points of Interest

1. Old State Capitol
2. Magnolia Mound Plantation
3. Louisiana State University
4. LSU Rural Life Museum
5. Cortana Mall
6. Bon Marche Mall
7. Baton Rouge Metro Airport
8. Cohn Memorial Arboretum
9. Greater Baton Rouge Zoo
10. Southern University
11. Visitor Information Center/State Capitol
12. Port of Baton Rouge
13. Heritage Museum
14. McHugh House
15. LSU Hilltop Arboretum
16. Baton Rouge Gallery
17. Celebration Station

THE FLAVOUR OF LOUISIANA

BATON ROUGE AREA CONVENTION & VISITORS BUREAU, INC.

* HILTON HOTEL

18. Blue Bayou Water Park
19. Landmark Antique Plaza
20. Westmoreland Antique Gallery
21. Jimmy Swaggart Ministries
RESERVATION REQUEST

BATON ROUGE HILTON
5500 HILTON AVENUE • BATON ROUGE, LA 70808
Phone (504) 924-5000 • Fax (504) 925 - 1330

The Baton Rouge Hilton is pleased you have selected us for your upcoming visit. Our staff looks forward to providing you with the finest in Southern Hospitality.

To make your reservations, we request that you either:
1) Enclose a check or money order covering the first night’s stay. -OR-
2) Fill in the entire number of your following credit card: American Express, Mastercard, Visa, Discover, Diners Club or Carte Blanche - OR-
3) Call Reservations@ 1-800-621-5116 (outside LA) or 1-800-221-2584 (inside LA).

The Baton Rouge Hilton regrets that it cannot hold your reservation after 6:00 pm on the day of arrival without one of the above.

Credit card guarantees and deposits will be refunded only if cancellation notification is given by 6:00 pm on the day of arrival.

GROUP:

THE LOUISIANA SECTION OF THE
AMERICAN INSTITUTE OF
PROFESSIONAL GEOLOGISTS

OCTOBER 2 - 8, 1998

Name (print): ________________________________
Address: ___________________________________
City __________________ State: ________ Zip: _________

For arrival on: ____________________________ Depart on: __________________________
Please reserve: ________________________ Rooms for: ________ People

Name(s) or persons sharing accommodations

☐ Check or Money Order Enclosed ☐ Visa ☐ American Express Card 
☐ Mastercard (Please include interbank #) ☐ Discover ☐ Carte Blanche

Amount $ ____________

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I authorize the Baton Rouge Hilton to charge my account for one night’s deposit and all applicable taxes.

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RESERVATIONS REQUESTED BEYOND THE CUT-OFF DATE ARE SUBJECT TO
AVAILABILITY. ROOMS MAY STILL BE AVAILABLE AFTER THE CUT-OFF DATE BUT
NOT NECESSARILY AT YOUR GROUP RATE.

THE DATES FOR THE MEETING ARE LISTED BELOW
ANY VARIATION IS SUBJECT TO AVAILABILITY

ARRIVAL Friday, October 2, 1998
DEPARTURE Thursday, October 8, 1998

PLEASE CHECK TYPE OF ROOM REQUESTED

☐ KING 1 PERSON $70.00
☐ KING 2 PERSONS $80.00
☐ DOUBLE BEDS 2 PERSONS $80.00
☐ DOUBLE BEDS 3 PERSONS $90.00
☐ DOUBLE BEDS 4 PERSONS $90.00
☐ EXECUTIVE KING 1 PERSON N/A
☐ EXECUTIVE KING 2 PERSONS N/A
☐ EXECUTIVE DOUBLE BEDS 2 PERSONS N/A
☐ EXECUTIVE DOUBLE BEDS 3 PERSONS N/A
☐ EXECUTIVE DOUBLE BEDS 4 PERSONS N/A
☐ EXECUTIVE KING SUITE N/A
☐ PRESIDENTIAL SUITE N/A

CUT-OFF DATE: SEPTEMBER 2, 1998

_______ SMOKING ________ NON-SMOKING
DOWNTOWN BATON ROUGE

Points of Interest
1. Old State Capitol - Future Site of the Louisiana Center for Political and Government History
2. Louisiana Arts and Science Center
3. Riverfront Plaza
4. Riverside Centrepix
5. Riverside Centrepix Performing Arts Theatre
6. Samuel Clemens Riverboat Cruises
7. Louisiana Arts and Science Center-Old Governor's Mansion and Museum
8. St. James Episcopal Church
9. St. Joseph's Cathedral
10. Pentagon Barracks
11. Louisiana State Capitol and Visitor Information Center
12. Old Arsenal Museum
13. Louisiana Governor's Mansion
14. USS Kidd DD-861, Louisiana Naval War Memorial Museum
15. Caffin Town - Landmark Antique Plaza
16. Baton Rouge Area Convention and Visitors Bureau, Inc.

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Definition of 'Responsible Charge'

J.W. Miller of the North Carolina Board for Licensing of Geologists contacted me at the suggestion of Jeffrey C. Reid, CPG-7390. Miller asked what AIPG thought about the definition of 'responsible charge' as applied to a licensed geologist who must be in responsible charge of any geological work done that affects the public safety or welfare of North Carolina. Good question. I responded by noting that AIPG does not define 'responsible charge' as far as I know, that I think a lot of people think they know what the term means, and that I think attempts to define it are like attempts to define beauty; you know it when you see it but defining it is another matter.

I also sent Miller a copy of the part of column 15 (Feb '97) which contained Andrew McCorkle's, CPG-8949, comments regarding résumé honesty in response to John Howard's, CPG-8740, article "Been There, Done That!" from the November 1996 TPG. McCorkle's most relevant statement involved his own experience compared with the résumés he reviews. "Prior to my current position, I was a manager within a large, international consulting firm. I remember those résumés from applicants. They all looked alike! So many times I saw the words project manager of this-and-that. It's almost impossible to evaluate one's technical and fiscal management skills from that one- to two-page piece of paper. Even though I've been responsible for annual budgets exceeding $3MM and critically evaluated hundreds of individual reports for accuracy, relevancy, and quality, I still look at my résumé and see the words project manager. Even though I have managed over 100 UST field projects, I still see the words project manager. Even though I have been responsible for completion of five large-dollar RCRA and CERCLA field investigations, I still see the words project manager. And even as one who now hires numerous consultants, is responsible for the scopes of their work, and is responsible for their accuracy and technical competency in completing work, I still see the words project manager. I sometimes wonder how a personnel director at any company would be able to distinguish my qualifications from those listed on the résumé from the individual of which you spoke!"

Reviewing résumés from job applicants and reviewing licensing applications presents many of the same problems.

I told Miller I'd ask the question in this column and he responded that he will be very interested in the replies. So what do you think 'responsible charge' means? How do/would you apply your definition to résumé or licensing application review? Does someone have a better answer than my comparison to 'beauty' or do we all share the frustration so well described by McCorkle?

What Is Covered by "Public Health, Safety, and Welfare"?

Miller's question above relates to a licensing board's responsibility regarding "geological work done that affects the public safety or welfare." Protection of the public's health, safety, and welfare is a major stated purpose of most laws, particularly those regulating professional practice. Are there some parts of geological practice which do and others which do not affect the public's health, safety, and welfare?

Clearly, much of engineering and environmental geology does. The weekend paper happened to contain a story about Colorado Department of Transportation geologists who were rolling rocks down a hillside—who said geology isn't fun—to test rock-fall catching fences. There was also a story about a child who was injured by a 10# rock falling down a canyon wall and hitting the family car. The news stories regarding the pounding California has taken this winter along with pictures of expensive homes sliding down hills or into the ocean highlight other forms of geologic hazards. And the engineering/environmental geologists have traditionally been the geologic discipline pushing most vigorously for geologic licensing.

But what about other geologic disciplines, do they engage in activities affecting the public health, safety, and welfare? The lead article in the March 1998 GSA Today described the Soufrière Hills accompanied by a picture of the volcanic hazard zones. The lead article for the March 1998 Geotimes described the importance of soils and urged their protection. The same Geotimes issue contained articles on the need for satellite data for a variety of geoscience uses, Florida's water wars (they aren't unique to the southwestern US), and a review of the new book, GeoDestinies: The inevitable control of Earth resources over nations and individuals by Walter Youngquist (1997). The reviewer, A.R. (Pete) Palmer states, "The global economic system is absolutely dependent on geologic resources for its health and survival." In Colorado, the Oil & Gas Conservation Commission's regulations and decisions on well-permit issuance are being challenged for failure to sufficiently take into account perceived threats to public health and safety resulting from drilling and production activities. I don't know but expect that the oil & gas commissions in other states are facing similar challenges.

Ted Wilton, CPG-7659, noted in a recent letter that
"We only have to remember how much money was lost by the Ontario Public Employees Retirement Fund in the Bre-X mess to determine that there is, in fact, a clear link between the minerals industry and the well being and general welfare of the public." Earth science teachers teach not only future earth scientists but others who may become policy makers or simply those who will vote. These basic earth science courses provide, for better or worse, some of the basis on which decisions relating geologic processes and geologic practice are made. Re-phrasing the question which begins this paragraph, are there geologic disciplines whose activities do not in some way affect the public health, safety, and welfare? Clearly one’s answer to the title of this section, "what is covered by ‘public health, safety, and welfare’?" is relevant. Contribute your thoughts.

Quality Control as an Ethical Practice
(columns 22, Sept ’97, and 26, Jan ’98)

Stephanie O. Davis, CPG-9487, responded to Dawn Garcia’s, CPG-8313, comments in column 26. "[Garcia’s] comments are supported by my experience in the environmental industry and I continue to be appalled by our:

1. seeming lack of awareness of a quality control problem,
2. our unwillingness to address the problem when it is recognized (possibly related to our professional egos?), and
3. our contention that it costs significant money to address the problem.

When I entered the environmental industry in 1990 as a transplant from the petroleum industry, it was into a larger project where my former petroleum employer was the client. The petroleum company had previously recognized that quality improvement was actually a key step to reducing overall project costs and had required that their consultants adhere to basic quality improvement principles. In this particular project, all data tables were independently checked prior to being used and all reports were reviewed by a technical writer, a project manager within the consulting firm, and a client representative before they were submitted to the client in draft form. The result was a finished product that was accurate and could be relied upon when making decisions. Since some of these decisions involved millions of dollars in remediation costs and affected our client’s public relations image, it was critical that the data upon which they were founded were correct. As the person preparing the tables and reports, I initially found the QA/QC process time-consuming and irritating. But I learned that we all make mistakes and I have become a much better writer.

"In 1993 I left the project and eventually joined a small (30-person) engineering and environmental consulting firm. It was like I had returned to the Middle Ages. Data tables were never checked, reports were sel-
Professional Ethics and
Client Behavior
(columns 27 & 29, Feb & April '98)

Robert C. Johnson, CPG-7911, wrote, "I am compelled to respond to my friend Doug Silver's, premise, reported in your column [27] of February, 1998, that there is a distinction between the 'investment' value of a project and the 'technical' value, i.e., the promotional value of a property versus the realistic potential of economic reserves, and that for a consultant there is an ethical equivalency between the two. Not having heard Doug Silver's talk first hand, I may have misunderstood his position. If I have not, I am bothered by the implication that it is ethical for a consultant to consider promotional aspects as well as the technical merits of a property.

"A mining exploration geologist's objective is to find 'ore' (in the strictest sense of the word). When he or she writes a report on a property, the reader of the report whether management or prospective investor should expect to get a competent assessment of the property's potential to host an ore deposit along with the proposed exploration program and budget to advance the property, hopefully, toward eventual exploitation. It is the geologist's ethical responsibility to fairly evaluate the technical risk and probability of success. Although it may not be stated in such literal terms, this professional judgement is inherent in the recommendation to pursue a 'worthwhile' project or not. Unless, in the geologist's honest opinion, the data in hand supports, at that stage of the project, the potential to host economic reserves, the property has no 'technical' value and should have no 'investment' value.

"There is a significant ethical difference involved with what I understand to be Doug Silver's definitions of 'technical' and 'investment' values. For properties with 'technical' value, i.e. the realistic potential to host ore, the consultant should have no problem recommending them. Properties that are amenable to a 'story' to attract investors but which lack realistic technical merits cannot be ethically recommended. Properties with legitimate technical merit may or may not ultimately be determined to contain ore deposits. Those investors who elect to invest early in the exploration process take the highest risk but may reap the highest reward if a mineable deposit is found. Those who invest later will likely gain less, but all are winners if ore is found. In principal, the ore deposit will reward all investors through the generation of real income. However, those investors who put their money into a 'story' may or may not be rewarded. Those who get in early and get out in time may make a fortune whether or not an ore body is found. If the property is without technical merit, it is certain that there will be financial losers equivalent to the winners. In the first case, the investor's risk is the probability of an ore body being present based on sound technical merits at the time of the investment. In the second case, the probability of an ore body being present is low and the investor's opportunity to realize a gain is dependent not upon the probability of an ore body being found but upon his or her 'timing', i.e. selling before the 'story' unravels. Consultants involved in the latter situation, those promoting an investment 'story' not fully supported by technical merit, have acted unethically. Yes, many investors invest (more accurately 'gamble') their money with full knowledge that the story is part of the game of musical chairs played for money. Ethical geologists should not be knowing and willing accomplices in such a game that will always end with some investors, probably the more naive who believed the 'story', in essence being defrauded of their investment.

"There is a huge ethical chasm between the 'technical' value and the 'investment' value, as I understand Doug views it, of an exploration property."

Johnson correctly points out that a geologist's job involves reporting on the technical merit of a property. Johnson is also correct in stating that further work should only be recommended for those properties whose prospects for containing reserves are based on reasonable technical criteria. I do not believe Silver views the situation differently. Silver's point was that recommending a property to a New York Stock Exchange-listed company for internal financing is no different than recommending the same property to a junior exploration company. The difference is the source of exploration funds between the companies; the junior company has to go to the equity markets to raise funds. But should the method of raising exploration funds have any affect how the geologist evaluates a prospect? Gregory A. Hahn, CPG-7122, explored this aspect of the debate in last month's column (#29, April '98).

The difference between technical and investment merit can be illustrated by gold metal. Technically hallmarked gold ingots or coins have the same value, a recognized gold fineness or purity. Yet how one views the purchase of gold ingots or coins as part of an investment program is an entirely different matter. Clearly the technical and investment characteristics of such gold differ.

The discussion of this topic has so far focused on mining prospects but applies equally to oil and gas prospects. Contributions from those of you who promote oil and gas deals would be most welcome.

Geologic Exams, etc.
(columns 27, Feb '98, 26 , Jan '98, and 24, Nov '97)

John C. Philley, CPG-4322, wrote, "A couple TPG issues ago [columns 24, 26, & 27], you made a brief reference to the use of the geology GRE exams by state licensing boards to measure the minimum competency
of licensure candidates (as opposed to the current ASBOG exams).

"At the present time I happen to be an officer of ASBOG and have represented Kentucky for a few years on ASBOG's Council of Examiners, the group who formulates and validates the exam questions twice a year. I also happen to be chair of the Kentucky Board for the Registration of Professional Geologists; I've been a member of this board since its inception.

"The Kentucky Board wrestled with how to administer the legislatively mandated examination requirement (once the grandfather period expired). We thought about using the GRE exams, but upon investigating that possibility we ultimately rejected it. We also thought very briefly about creating our own exams (as Florida and Georgia did). From a legalistic point of view, any challenges to GRE exams that might arise from disgruntled candidates would be hard to defend. The GRE was not designed for licensing requirements and ETS, in all probability, would not defend its use for licensing purposes. Likewise, similar difficulties could arise with examinations developed by state boards. (State boards incur a significant expense in developing, administering, and validating competency exams. Georgia has now abandoned their exams in favor of ASBOG's. Florida may do likewise. Even California is giving some consideration to ASBOG's examinations.)

"Mississippi, which recently passed a licensure law, is pursuing a plan whereby ASBOG's fundamentals examination will be used as an exit examination by those state colleges offering geology degrees, a procedure similar to that used for many years by many engineering colleges. Some schools in Kentucky are also giving consideration to this plan. Regional accreditation associations have begun to insist on these kinds of accountability measures."

Philley's comments provide a valuable perspective on some practical reasons why the GRE exam is not used by states. Philley has devoted a lot of time to this subject and was a co-author with Robert Whitsonant of "Registration and Testing of Practicing Geologists: Implications for Academic Programs," which appeared in the May '97 TPG.

As I noted in column 24, taking the knowledge test when one is at the end of one's academic career (or at least part of it) is one thing. Facing the prospect of taking a similar test many years later is another. True, this problem will go away if everyone takes the test and all states recognize it. The attractive thing about the GRE is that, despite its specific design purposes, it covered pretty much the same material, and it works as a "grandfather" test. It may not be perfect, but it has existed for years. I can't go back in time to the end of my academic career. But I did take a pretty comprehensive test then, and I have the scores.

Reciprocity for practice, particularly occasional practice, is really the bottom-line issue. This topic has been discussed in this column before and no doubt will be in the future. Please contribute your thoughts.

Draft Policy on the Exercise in Professional Judgement

I find myself caught in a timing squeeze play between the need to submit this column for publication, expected Executive Committee action on the draft policy, and a necessary out of town trip. I received excellent comments on the draft policy from Peggy L. Carpenter, CPG-9116, Thomas G. Fails, CPG-3174, Donald A. Bricc, CPG-7986, Kevin Coleman, CPG-8884, and Robert Colpitts, CPG-7702 along with shorter notes and general support from others. In order to allow publication of the adopted policy in the annual directory, revised drafts of the policy were distributed by e-mail to the Executive Committee and others who commented. The resulting policy, which I hope is being published in this issue of TPG, reflects the everyone's suggestions and concerns.

Major changes since the previously published draft include recognition of the existence and limitations of the informal standards existing for various types of studies. Also, the need to apply sound geologic principles and reasoning was included so that "exercise of professional judgement" is not used as a handy excuse by the unethical. As Robert A. Larson, CPG-8113, noted, "Pass the statement. After a year in the light, we can always change it."

AIPG Policy on the Exercise of Professional Judgement

(Adopted March 31, 1998)

The American Institute of Professional Geologists (AIPG) strongly supports the use of professional judgement as the primary guiding factor in the study or assessment of any particular site or physical location. Each professional geologist must be free to exercise professional judgement as guided by his or her education, past training, and relevant experience. Professional judgement is critical to the appropriate use of the principles and methods required for the study of any particular site or physical location with respect to its intended use or remediation. AIPG considers that prescriptive professional practice standards relating to geologic practice are contrary to the public interest. The use of prescriptive standards discourages the recognition or consideration of the geologic factors and circumstances making each particular site or physical location unique. Unconsidered application of prescriptive standards may result in some unnecessary activities being done and other necessary activities being left undone. In addition, such prescriptive standards will prevent the use of new and improved methods for addressing the problem in question. While AIPG recognizes that various informal 'standards' exist and that such standards can be useful, these standards are necessarily incomplete guides due to the uniqueness of each site and thus require the exercise of professional judgement in their application. Any geological study must be based on sound scientific principles, data, and reasoning, and these bases should be well documented.
The American Institute of Professional Geologists is Accepting Applications for the Position of EXECUTIVE DIRECTOR

The American Institute of Professional Geologists (AIPG), a non-profit organization with over 5,000 members dedicated to the advancement of geology and the geologic profession, seeks a full-time Executive Director. At the time of appointment, the appointee must be Certified by AIPG as a Certified Professional Geologist, have ten years or more of technical and management experience at increasing levels of responsibility, and be aware of the key issues affecting the geological profession and AIPG. A team-oriented leader with strong communication and interpersonal skills is sought, with appreciation of policy issues impacting geologists at Federal and/or state levels, the ability to attract non-dues revenue, and enthusiasm for service as a geoscience representative.

The Executive Director will be responsible for Headquarters operations including publications and membership services. The Executive Director works under the direction of an elected Executive Committee to help formulate and undertake initiatives including such things as budgets, publications, membership and revenue enhancement. He or she must maintain good relationships with appropriate professional and technical organizations.

The Executive Director must travel as needed. Salary is competitive with non-profit organizations of AIPG’s budget and size. The position will remain open until filled, preferably during spring 1999.

Applicants should submit a complete resume, the names and addresses of at least four references (three CPGs minimum) and a two-page essay explaining applicant’s interest in the position and what the applicant could bring to it. Applications should be received no later than 30 June 1998 by the:

Search Committee, AIPG
7828 Vance Drive, Suite 103
Arvada, CO 80003-2125

AIPG is an equal opportunity employer.
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Alaska Cruise to 1999 AIPG Annual Meeting

Several Members have asked if a cruise (e.g., sail up and fly back) might be arranged in conjunction with the AIPG Annual Meeting near Anchorage, Alaska, in early October, 1999. This is a survey to assess the interest in such an activity. If sufficient interest is indicated, an attempt will be made to determine the availability of a suitable vessel. The most likely port of embarkation would be Seattle, Washington. It is assumed that all participants would be geologists (or accompanied by geologists), who would be expected to understand what is being seen. Therefore, in order to minimize costs, consideration might be given to foregoing a lecturer to describe the geologic, etc., scenery along the coast and in the archipelago. Meanwhile, a suitable guidebook is being sought.

If you are interested in participating in such an activity, please send your answers to the following questions to AIPG Headquarters before June 1, 1998, by letter, fax, or e-mail. Attn: 1999 Alaska Meeting Cruise.

This is a survey, not a commitment. Comments and suggestions are welcome.

A. Number of likely participants: Member(s)____ Spouse(s)____ Other(s)____

B. Would you insist on luxury accommodations? Yes____ No____

C. Would you be satisfied with basic accommodations? Yes____ No____
   (If you answered "No" to both B and C above, it will be assumed that you would be satisfied with, something in between.)

D. Would you be satisfied with forgoing the lecturer? Yes____ No____

E. What price range should we seek? Max.___ Min.___ average/day.
   (A reasonable balance of economy and quality would be expected.)

F. Your name (Your response will not count if it is omitted.):__________________

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Executive Committee and Headquarters Activity

Members of the Executive Committee and/or of the Headquarters staff will participate in the following meetings, which provide opportunities for AIPG Members to exchange ideas with the Executive Committee and staff. We also welcome invitations from AIPG Sections to discuss AIPG programs and goals. If your Section would like to meet with members of the Executive Committee or Headquarters staff, please contact Headquarters to schedule a convenient time. Thank you.

May 3-6: Washington, DC
AIPG Washington Fly-In (President Testa, President-Elect Fails and Advisory Board Representative Van Guilder)

May 8-10: Arvada, Colorado
Executive Committee Meeting
(All Executive Committee and staff)

May 16-22: Salt Lake City, Utah
AAPG Convention (President Testa, President-Elect Fails, Executive Director Knight and staff)

May 16-22: Salt Lake City, Utah
AGI Council & Committee Meetings (President Testa, President-Elect Fails, Executive Director Knight)

Jun. 2-3: London, UK
Geological Society Annual Meeting (President Testa, President-Elect Fails, Executive Director Knight)

Jun. 5-7: Cologne, Germany
EFG Council Meeting (President Testa, President-Elect Fails, Executive Director Knight)

Jul. 20-23: Las Vegas, Nevada
National Council of State Legislators (President Testa, President-Elect Fails)
1998


Jun. 2-5. The Environmental Sampling Field Course, Columbus, OH. Contact: The Nielsen Environmental Field School, Inc, 4686 State Rte. 605 S., Galena, OH 43021, Ph.: (614) 965-5026, fax: (614) 965-5027.


Jul. 4-11. Processes of Crustal Differentiation: Crust-Mantle Interactions, Melting and Granite Migration through the Crust, Verbania, Italy. Contact: Lois J. Elms, Western Experience Penrose Conference Coordinator for the GSA, 4881 Evening Sun Lane, Colorado Springs, CO 80917, Ph.: (719) 597-9201, e-mail: lje@lje.com.


Sep. 30 - Oct. 4. AEG Annual Meeting, Earthquake Hazard Maps and their Applications, Seattle, Washington. Contact: Yumei Wang, Oregon Dept. of Geology, 800 NE Oregon St., #28, Portland, OR 97232, Ph.: (503) 731-4100, Fax (503) 731-4066, email: meimei.wang@state.or.us.

Oct. 19-22. Australia's International Mining & Exploration Exhibition (AIMEX), Sydney, Australia. Contact: Gene Sanders, REC, 383 Main Ave., Norwalk, CT 06851, Ph.: (203) 840-5570.

Oct. 21-23. GCAGS 48th Annual Convention - Bridging the Gulf: To New Growth, To the New Millennium, Corpus Christi, TX. Contact: AAGP Convention Dept., P.O. Box 979, Tulsa, OK 74101-0979.


Oct. 5-7. AAAS Conference in South Dakota to establish network of researchers in Great Plains states, Sioux Falls, SD. Contact: Ellen Cooper, Ph.: (202) 326-6431.

Nov. 12-17. AAAS Epic of Evolution Conference, Chicago, IL. Contact: Dave Amber, Ph.: (202) 326-6434.

Nov. 21-23. AAAS' Conference on Guidelines for Anonymous Interplay on the Internet, Irvine, CA. Contact: Dave Amber, Ph.: (202) 326-6334 or http://www.aaas.org/ssp/anon


Send notices of meetings of general interest, in format above, to Editor, TPG, 7828 Vance Drive, #103, Arvada, CO 80003, e-mail: wjd@aipg.com.

AIPG ANNUAL MEETINGS

October 3-8, 1998
Baton Rouge, Louisiana

October 5-8, 1999
Anchorage, Alaska

October 11-15, 2000
Milwaukee, Wisconsin

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As of 04/22/97 As of 04/15/98

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AS 0 4
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Applicants for Certified Professional Geologist

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IA-High, Andrew B.
718 E. Maple, P.O. Box 392, Hubbard IA 51122. Sponsors: Douglas Trail, Andy Kendrick, Rolf Woods.

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5931 S. Lima St., Englewood CO 80111. Sponsors: Gary Ryals, Nan Glenn, Serge Hanson.

CO-Koontz, Wendell A.
Mountain Coal Co., P.O. Box 591, Somerset CO 81434. Sponsors: Alexander Pepp, Mark Scanlon, Mark Bunnell.

CO-Lovekin, Jonathan R.
CTI/Thompson, 5240 Mark Dabling Blvd., Colorado Springs CO 80918. Sponsors: Liv Bowden, Graham Cloas, Matt Sares.

Upgrading to CPG

CO-Sherry, Christian R.

Applicants for Member

MN-Olson-Saxhaug, Karen R.
NTS, Inc., P.O. Box 1142, Virginia MN 55792. Sponsors: David Witt, Richard Crum.

PA-Treuschow, Steven J.
CE Consultants, Inc., 400 Penn Ctr Blvd #600, Pittsburgh PA 15235. Sponsors: James Kilburg, Jeffrey Evers.

New Certified Professional Geologists

AK-Crendall, Robert Paul CPG-10262
3910 Eastwood Loop, Anchorage AK 99504, (907) 279-1433

NH-Devine, Christopher P. CPG-10263
108 Litchfield Rd., Londonderry NH 03053, (508) 258-7476

CO-Ferguson, Randall H. CPG-10264
854 S. Clarkson, Denver CO 80209, (719) 546-5409

MI-Heft, Adam W. CPG-10265
224 S. Summit St., P.O. Box 362, Webberville MI 48892, (517) 482-8810

PA-Lock, Matthew J. CPG-10268
RR 2 Box 375, Mifflintown PA 17059, (717) 232-0533

NJ-Lombardo, Christopher R. CPG-10251
50 Highland Ave., Leonardo NJ 07737, (702) 949-3541

MN-Nagle, Davison C. CPG-10269
8005 Jonellen Lane, Golden Valley MN 55427, (612) 770-1500

MI-Peng, Wei-Shyuan CPG-10272
292 College Ave., Holland MI 48423-3650, (616) 354-3210

NY-Tyers, George A. CPG-10274
32 Park St., Kings Park NY 11754, (516) 674-3889

OH-Varga, Jeffrey R. CPG-10275
6320 Greenwood Pkwy. #106, Sagamore Hills OH 44067, (216) 591-9222, X145

MA-Zimmerman, John E. Jr. CPG-10279
175 Centre St., Bldg H, Apt #814, Quincy MA 02169 (781) 356-1444

New Members

VA-Applegate, J. David MEM-0002
AGI, 4200 King St., Alexandria VA 22302-1502, (703) 379-2480

IL-Ogden, Jeffrey M. MEM-0003
6145 34th Ave., Moline IL 61265, (309) 793-6500

New Associate

CO-Kaufmann, Nina M. AS-0004
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VOLUNTEERS NEEDED

AIPG is soliciting volunteers to develop policy statements on "Global Climate Change" and "Wetlands". Should you or a Member of your Section have an interest and appropriate background in these areas, please contact AIPG Headquarters.

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