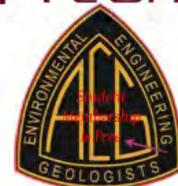


Jeffrey R Keaton AMEC Americas

Jeff.Keaton@amec.com  
323-889-5316 office  
323-215-8454 cell

# Association of Environmental & Engineering Geologists



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# What is Environmental & Engineering Geology?

## What is geology?

The study of the earth and its processes, including rocks, soil, water, landforms, and how they all interact.



## What is applied geology?

Applying the knowledge of the earth and its processes that we have learned through the ages to address problems that affect all of us every day, and to help make our world a better and safer place to live.



## What do Environmental & Engineering Geologists and Hydrogeologists do?

We identify, analyze, and mitigate natural and manmade hazards to protect property, public health and the environment.

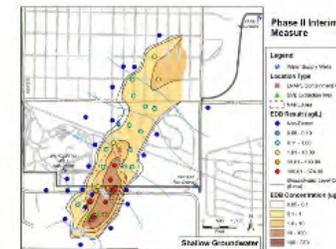
We investigate and analyze the earth materials present from the ground surface down into the earth to evaluate their suitability for support of proposed structures and to provide recommendations for foundation types based on subsurface conditions.



## Why is this relevant and important to you?

Environmental, Engineering, and Hydrogeologists work on:

- **Natural hazards** – landslides, faulting and earthquakes, flooding, sinkholes, volcanoes, and glaciers
- **Site Evaluations** – investigate sites for design and environmental considerations such as slope stability, seismic hazards, soil and groundwater contamination, and soil and rock properties for construction considerations
- **Site Mitigation** – design and implement methodologies to clean-up contaminants in the soil and groundwater, and to stabilize earthen materials



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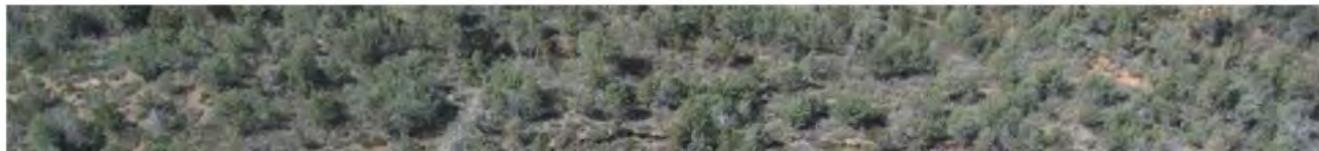


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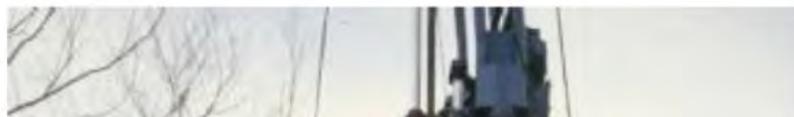


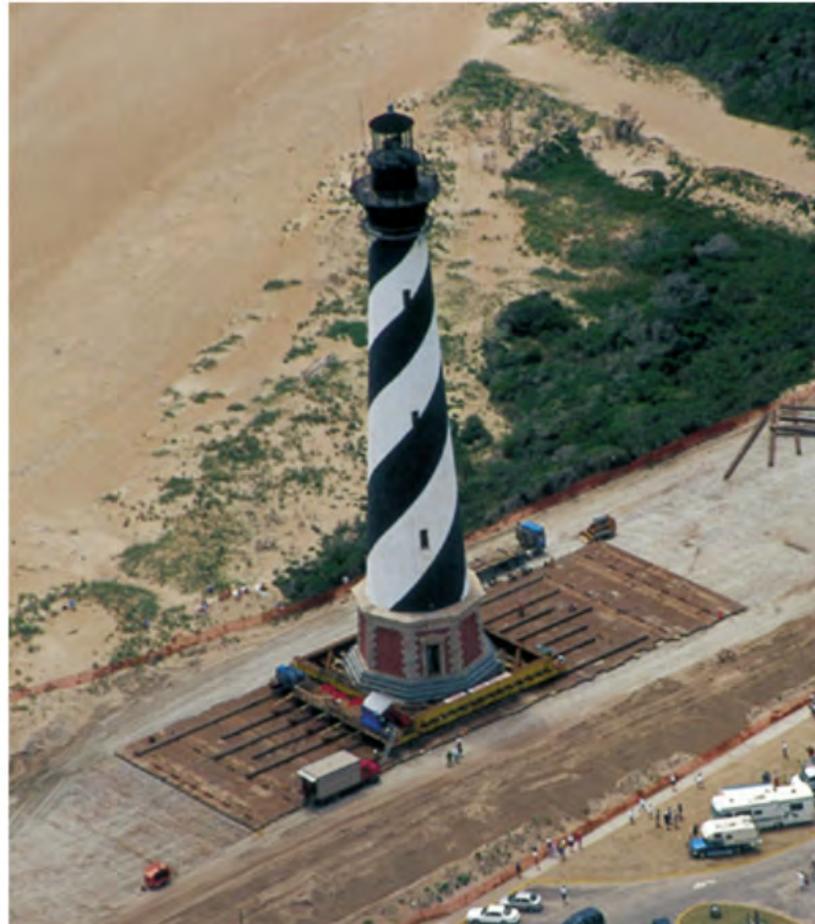
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**Phase II Interim  
Measure**

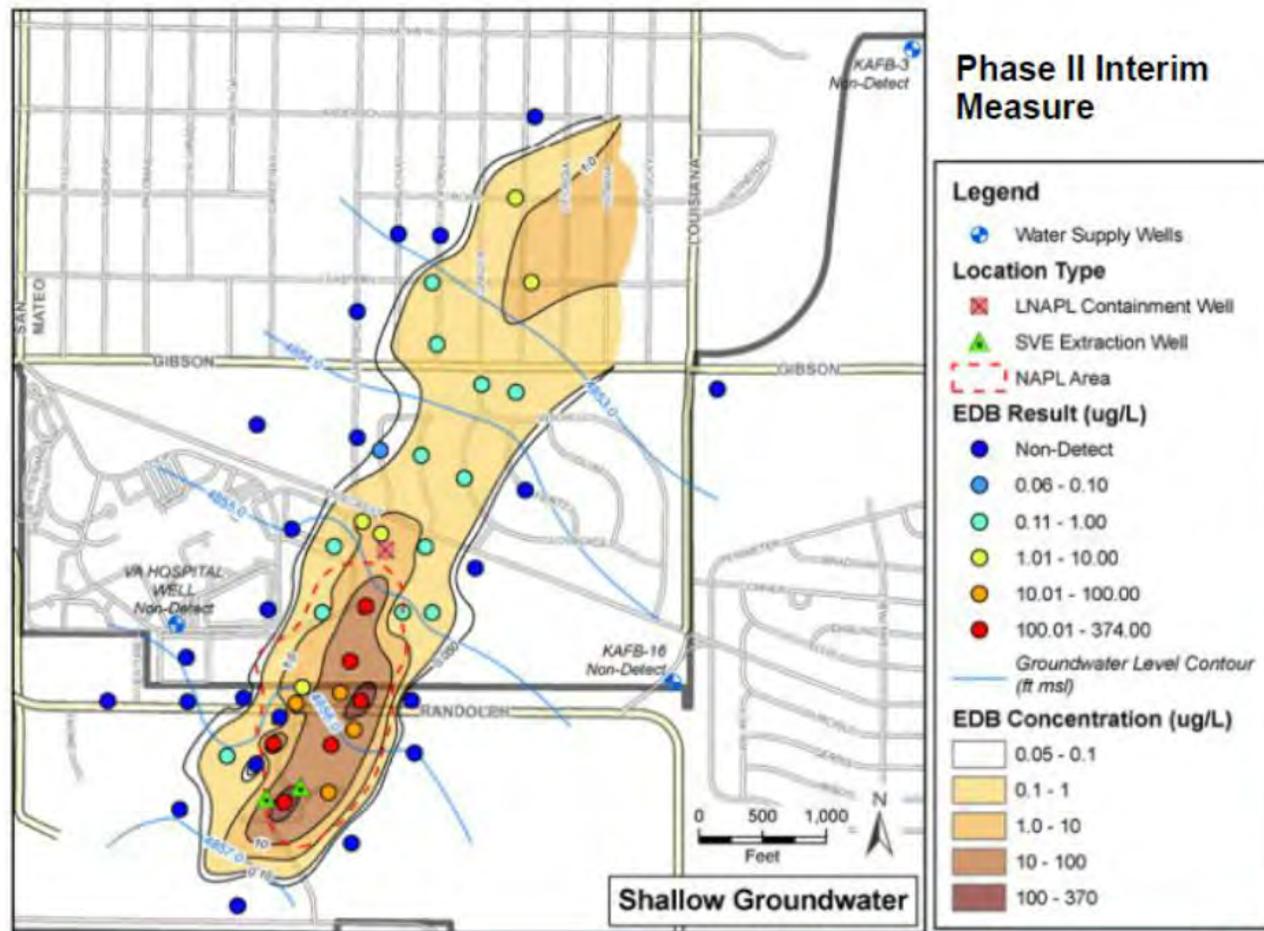








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# What is the Association of Environmental & Engineering Geologists?

## Our Mission:

AEG contributes to its members' professional success and the public welfare by providing leadership, **advocacy**, and applied research in environmental and engineering geology.



## Upcoming Events

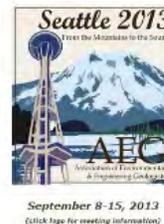
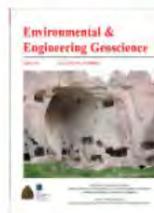
**Baltimore-Washington-Harrisburg  
May Meeting**  
Frederick | **Dates:** 16 - 16 May, 2013

**13th Technical Forum - Call for  
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Harrisonburg | **Dates:** 18 May, 2013

**GSA- Cordilleran Section Meeting**  
Fresno | **Dates:** 20 - 22 May, 2013

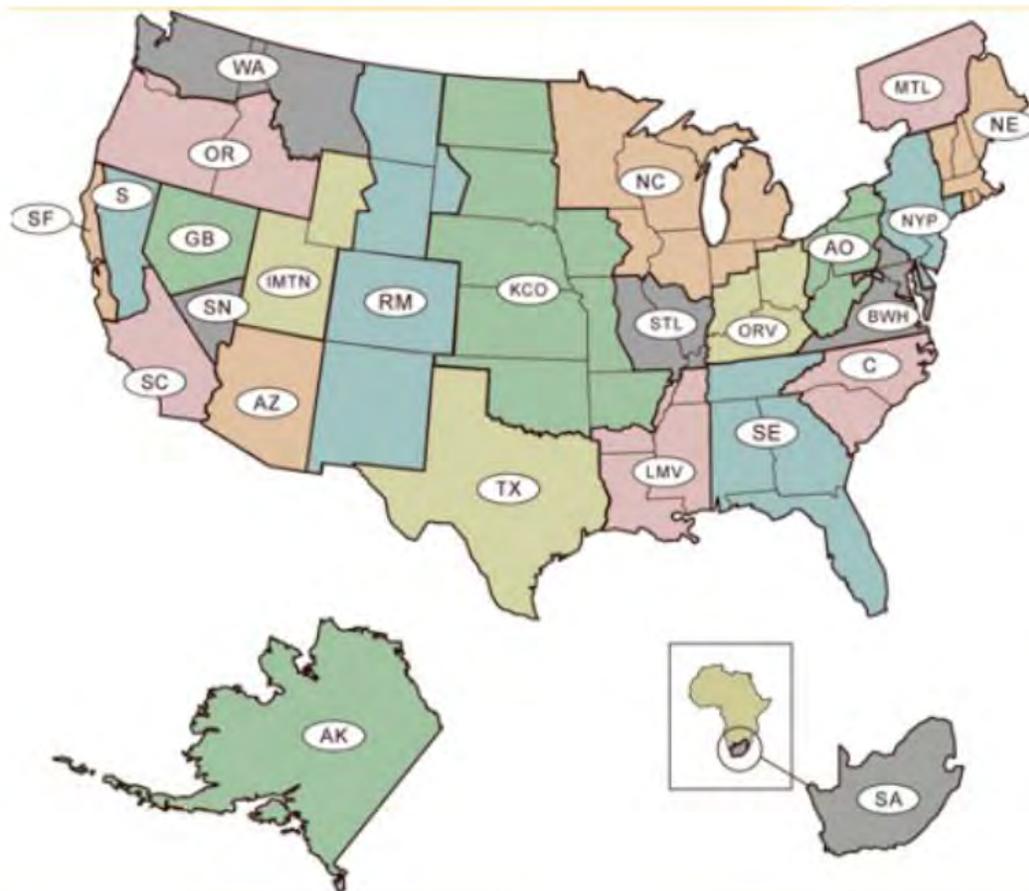
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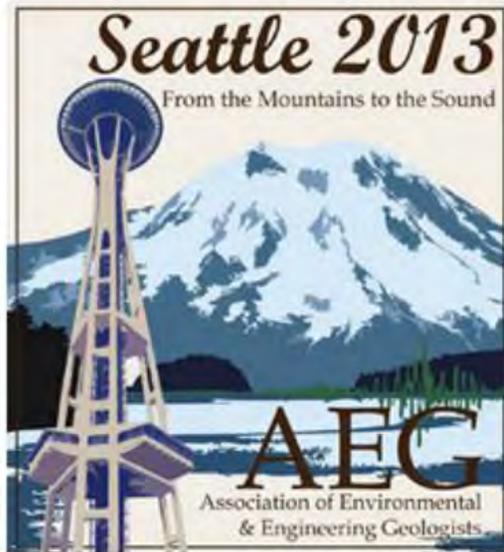
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**September 8-15, 2013**

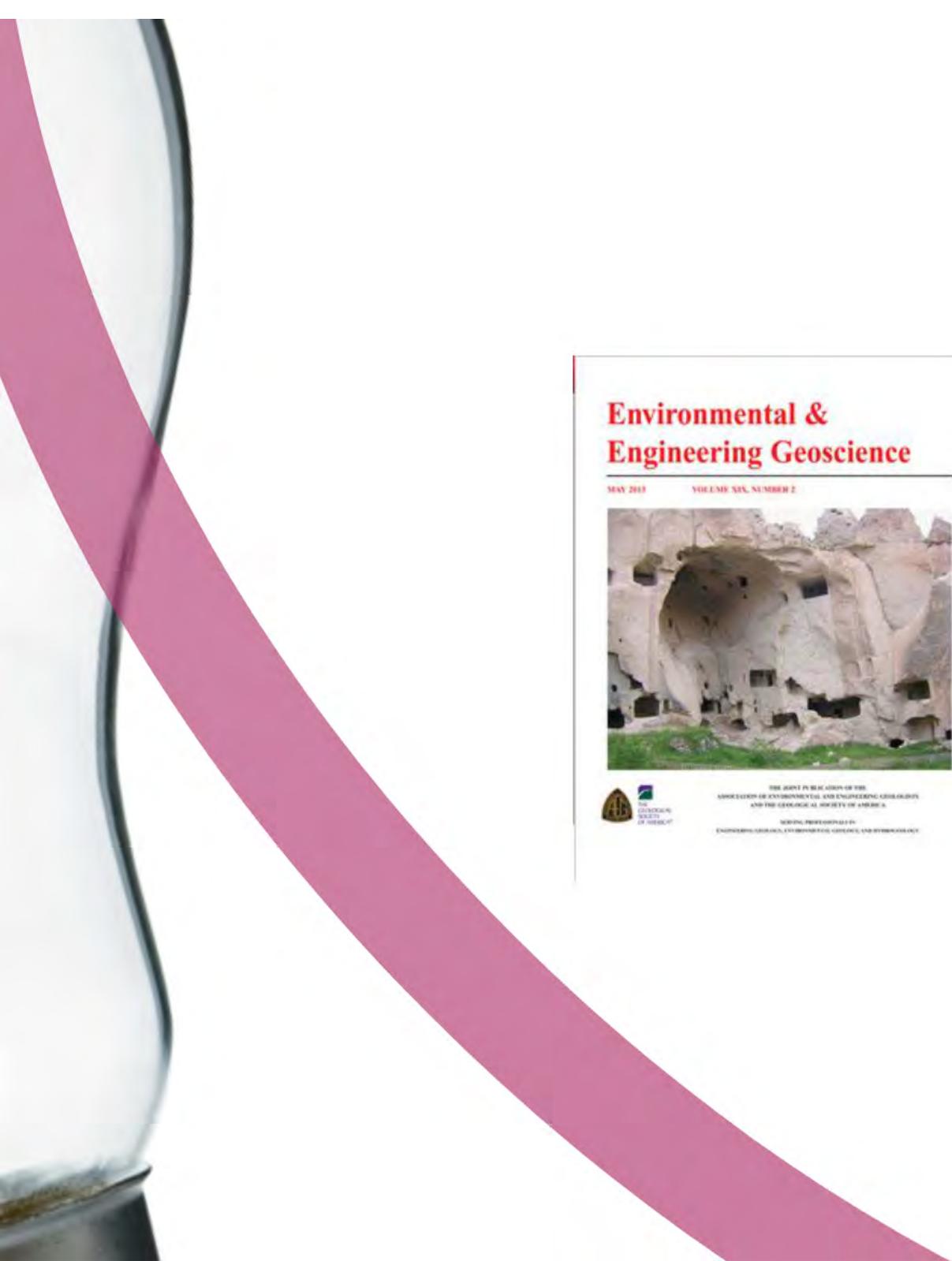
*(click logo for meeting information)*

**Shlemon  
Specialty Conference**

*Dam Foundations  
Failures and Incidents*

Hyatt Tech Center  
Denver, Colorado  
May 16-17, 2013

[MORE INFORMATION](#)



# Environmental & Engineering Geoscience

MAY 2013 VOLUME SIX, NUMBER 2



THE JOINT PUBLICATION OF THE  
ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS  
AND THE GEOLOGICAL SOCIETY OF AMERICA  
SERVING PROFESSIONS IN  
ENVIRONMENTAL GEOLOGY, ENGINEERING GEOLOGY, AND HYDROGEOLOGY

# AEG NEWS

ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS  
Connecting Professionals, Practice and the Public



March 2013  
Vol. 36, No. 1

# What Does AEG Have for Students?

## Student and New Graduate Member Application

Let the Association of Environmental & Engineering Geologists (AEG) show you the great benefits of being a part of the geology profession! **AEG is geology in practice.** Join us and see why our members LOVE their jobs!

### Benefits of Student Membership Include:

- Eligibility for **Scholarships** that provide funding for field camp, field studios, academic studios and travel to present at national meetings.
- **Discounts** for attending AEG's Annual and local Section Meetings, field trips, and short courses (sometimes you can attend for **FREE**).
- **Networking** opportunities to potentially meet **YOUR future employer!** One member noted, "Every job I have had was a result of shaking hands at an AEG event!"
- **Free online access** to *Environmental & Engineering Geoscience*, co-published with the Geological Society of America, *AEG NEWS*, and AEG's *Annual Meeting Program with Abstracts*.
- **STUDENT MEMBERSHIP IS FREE!**
- **PLUS**, as AEG's gift to you for graduating, your first year of Professional Membership is **FREE!**

### Beardsley-Kuper Scholarship Fund

**Details:** Grants from the Beardsley-Kuper Field Camp Scholarship Fund are awarded to support geology field camp costs with applied environmental and engineering geology that will be useful to the student's future profession as an engineering or environmental geologist.

**Deadline:** February 1

### Marilave Scholarship Fund

**Details:** A Marilave Scholar applicant must be a senior or graduate student presently enrolled full-time in a college or university degree program that is directly applicable to engineering geology or geological engineering, and a student member of AEG.

**Deadline:** February 1

### Martin L. Stout Scholarship

**Details:** Applicant must be a student member of AEG at time of award. Applications for student membership may be submitted with the academic application.

**Deadline:** February 1

### Norman R. Tilford Field Studies Scholarship

**Details:** Applicants must be a Student member of AEG. Two to three awards are given -- one for undergraduate students and two for graduate students.

**Deadline:** February 1

### Lenka Scholarship Fund

**Details:** Applicants must be Student members of AEG who are sole or first author of a paper to be presented at the AEG Annual Meeting or at a meeting or conference sponsored, co-sponsored, or supported by AEG. Application deadlines vary according to the meeting calendar. Grant amounts vary according to meeting and available funding.

**Deadline:** May 7 for the AEG Annual Meeting (typically held in September), or 90 days before the first day of another meeting or conference.



Association of Environmental & Engineering Geologists  
Student Chapter Application

Thank you for your interest in becoming an AEG Student Chapter. We are excited to have your Student Chapter join the AEG's community. Please let us know if there is anything we can do to support your new chapter.  
-Student and Young Professional Support Committee of AEG

Please submit with this form the following materials:

- Proof of Student Group status:**  
This can be a copy of the college or university recognition form for student organizations, submitted to the college or university where the student group is affiliated.
- Letter from Student Chapter Advisor:**  
The Student Chapter Advisor must be a member of the faculty at the college or university where the Student Chapter is affiliated and an AEG Member. The letter must indicate this individual's faculty status, college or university affiliation, and include a signature and date.
- Please provide a proposed name for your student chapter. Student Chapter name is subject to the approval of AEG Headquarters.

## ABET ASAC Student Outcomes

Associate degree programs must demonstrate that graduates have:

- (a) an ability to apply knowledge of mathematics, sciences, and other related disciplines
- (b) an ability to conduct experiments, as well as to analyze and interpret data
- (c) an ability to identify, formulate, and solve applied science problems
- (d) an ability to function on teams
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Recommended geology courses for students interested in engineering geology careers:

- ◆ Hydrogeology
- ◆ Engineering Geology
- ◆ Good background in physics and calculus

Other recommended courses:

- ◆ Statics
- ◆ Fluid Mechanics
- ◆ Materials
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Recommended courses for students interested in environmental geology careers:

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- ◆ Low temperature geochemistry (especially useful for those people dealing with contaminants in soil and groundwater)

## ASBOG Fundamentals of Geology Study Hints - November 10, 2011

Daphne M. Jones, P.G., R.S.M.  
Senior Geologist  
Dunklee & Dunham, P.C.  
[daphne@dunkleedunham.com](mailto:daphne@dunkleedunham.com)

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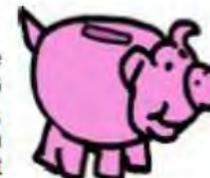
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# Consulting Geology Applied to Environmental or Engineering Services

*Professional practice --> licensed*

- 1) Professional license (PG)*
- 2) Technical license (certificate)*

<b>Fundamentals and Practice of Geology Test Blueprints</b>			
Content	FG/PG %	Content	FG/PG%
General/Field Geology	20/21	Structure, Tectonics, Seismology	11/9
Mineralogy, Petrology, Geochemistry	11/5	Hydrogeology	11/19
Sedimentology, Stratigraphy, Paleontology	12/5	Engineering Geology	11/17
Geomorphology, Surficial Processes, Quaternary Geology	13/8	Economic Geology and Energy Resources	11/16
<b>Total</b>			<b>100/100</b>

From ASBOG® Professional Geologists Candidate Handbook  
FG = Fundamentals of Geology exam (Requires 30 semester hours in geological sciences.)  
PG = Practice of Geology exam (4+ yrs experience as GIT (geologist in training))

*Two basic levels*

- 1) Regulation-driven (price)*
- 2) Value-added (capabilities, confidence)*

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Association of Environmental & Engineering Geologists



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Student Chapters at 2-year schools*



*AEG Monthly Meetings provides opportunities  
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*Summer intern opportunities with some  
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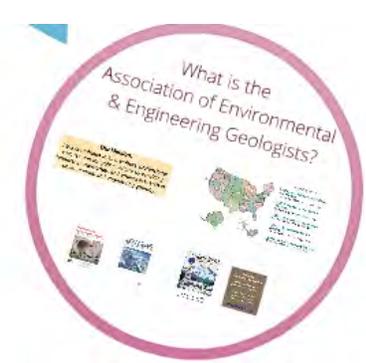
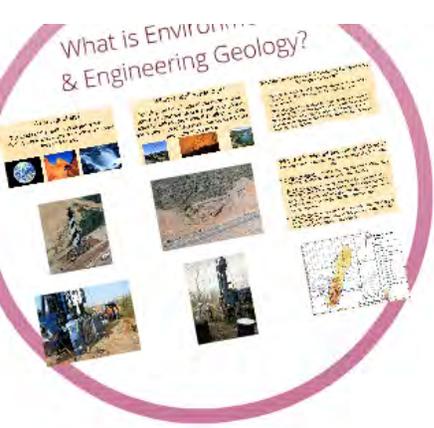


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