



The Official

OREGON SECTION AEG NEWSLETTER

September Meeting Details	
Date: Tuesday September 21st	
Location: Old Market Pub	
6959 SW Multnomah	
Portland, OR	Note: Early
6:00 pm Social	Timeline
6:45 pm Dinner	
7:30 pm Presentation	
Dinner: Pizza and Salad	
\$20 Dinner (\$5 Students)	
Reservations: mwegner@corforthconsultants.com with "AEG Reservation" in the subject line or 971-222- 2047 by 4pm September 16th	
There is a \$2 surcharge for those who do not reserve by the deadline.	
Upcoming Meetings:	
October-Eldon Gath November Stephen Hay December-TBA January-Charlie Hammond February-Yumei Wang March-Rob Witter April-Student Night May-TBA	

The September Guest Speaker is Alexis Clark from AMEC Earth & Environmental—Topic: Ground Source Heat Pumps

A ground source heat pump (GSHP) uses the ground and/or groundwater as a source of heat in the winter to heat and serves as a "heat sink" during summer months for cooling buildings or structures. This process works via heat exchange and is dependent on the local geologic and hydrogeologic conditions.

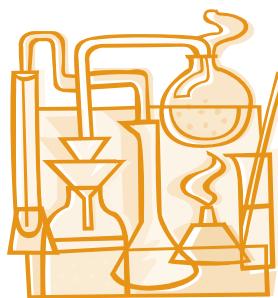
The discussion will focus on vertical open loop systems that utilize wells for groundwater extraction and reinjection into aquifers and also on vertical closed loop systems that use the subsurface for heat exchange via a "closed" loop completed within a borehole.

GSHPs can be advantageous to conventional heating and cooling systems by providing energy and cost savings over time, sustainable sources of energy, and credits for Leadership in Energy and Environmental Design (LEED) certification. This presentation will cover aspects of GSHP technology selection, feasibility studies, permitting, regulatory, design, and installation as well as case study examples from the Pacific Northwest and elsewhere.



"Keen observation is at least as necessary as penetrating analysis"

Karl Terzaghi



Bio: Alexis Clark, RG

Ms. Clark has 11 years of environmental consulting experience in hydrogeology. She received her BS in geology from Eastern Illinois University in 1996 and her MS in hydrogeology from the University of Arizona in 1999. Previously, she was employed with GeoTrans in Westminster, Colorado, and with Golder Associates in Portland, Oregon. During this time, she performed environmental investigations, numerical groundwater flow and transport modeling of aquifers in both porous media and fractured bedrock, aquifer storage and recovery (ASR) pilot studies, water resource planning, and wellhead protection investigations.

Ms. Clark has been employed with AMEC Earth & Environmental in Portland since 2007 where she conducts hydrogeologic investigations for Federal, state, local, commercial, and industrial clients. She also provides geologic and hydrogeologic system design, permitting support, and installation oversight for geothermal or Ground Source Heat Pump (GSHP) systems. These systems utilize the relatively constant temperature of the subsurface and/or groundwater for heating and cooling buildings and providing pre-heating of domestic hot water. AMEC focuses on applications for both vertical open loop (utilizing wells) and closed loop (utilizing boreholes) systems.



Message from the Chair

Please allow me to welcome you to the 2010 – 2011 Oregon AEG Season and to introduce myself. My name is Lisa Glonek and I am your Oregon Section AEG Chair for the upcoming year. I'm looking forward to the great talks that Mike Marshall (Speaker Committee) and the rest of the Oregon Section Board have lined up for this year and to chat with all of you at the meetings. We're beginning with an environmental twist and will be mixing it up this season with geotechnical issues, too, along with all of the other exciting happenings with the active Oregon AEG group. This year will be AEG's turn to host the joint AEG/ASCE meeting in January, so just a reminder to please put your best AEG foot forward.

I'd like to give special thanks to Jason Hinkle for organizing a field trip at the end of July to the check out the Hoskins Road Landslide located about an hour west of Portland. About a dozen people showed up and had a great time learning about this highly active landslide along with the typical good geological company and beverages. In addition, I'd like you to please help me welcome Darren Beckstrand of Cornforth Consultants for joining the Oregon Section AEG ranks. Darren joins Kevin Schleh (GeoCon Northwest, Inc.), Robin Johnston (AMEC Earth & Environmental, Inc.), and me. I'd also like to give an extra special thanks to David Scofield (ACOE), who is now the Past Chair, for his years of service to the Oregon Section. Thank you, Mr. Scofield. Finally, Bill Burns (DOGAMI) deserves another round of the applause for his efforts in putting together such a fabulous newsletter for our section. We're always looking for people to join the Oregon Section Board, so please approach one us fine folks and we'd be happy to fill you in on the fun we have in being part of such a great group.

What kind of Chair would I be without mentioning something about our wonderful Student Chapter Section? Please welcome Erin Dunbar as she steps up to the plate to be the next Student Chapter President. Thank you to Kate Mickelson for serving as president last year. We have an amazing group of hard-working students who always make the AEG Oregon Section stand above the rest and extremely proud. You may notice an increase in meeting fees this year and that is to help cover the cost of the venues and to support the students. Students are a vital part of our organization and they are the future Geologists, so please extend your hand to a hardworking student whenever possible.

Are you ready to take the heat at the Oregon AEG season opener? Welcome and thank you to Alexis Clark for her presentation of ground source heat pumps. Please note the earlier start time for the dinner and presentation.

Perhaps I'll see you at the national meeting in Charleston? Here's to a grand 2010 – 2011 season!

Lisa Glonek

Oregon AEG Section Chair

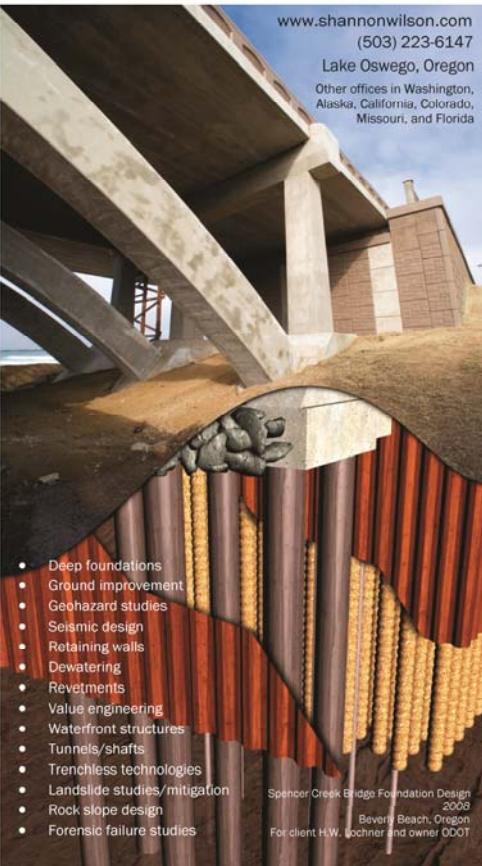
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Karl Terzaghi



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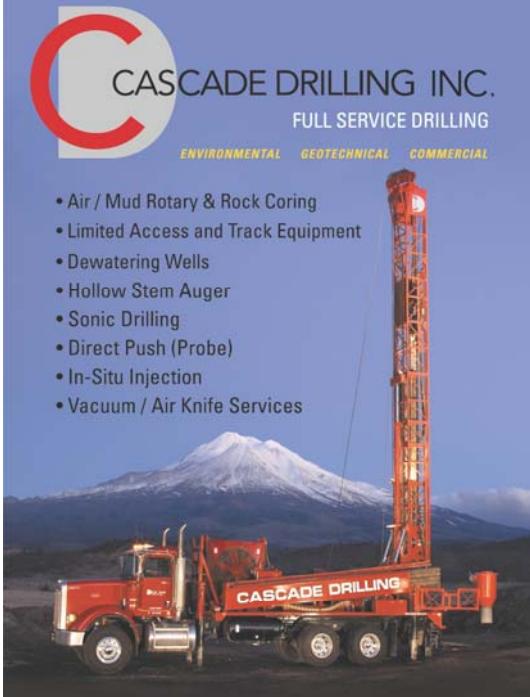
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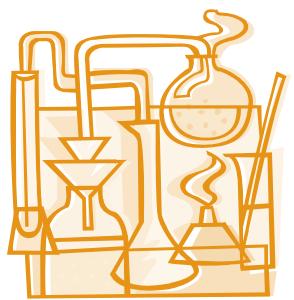
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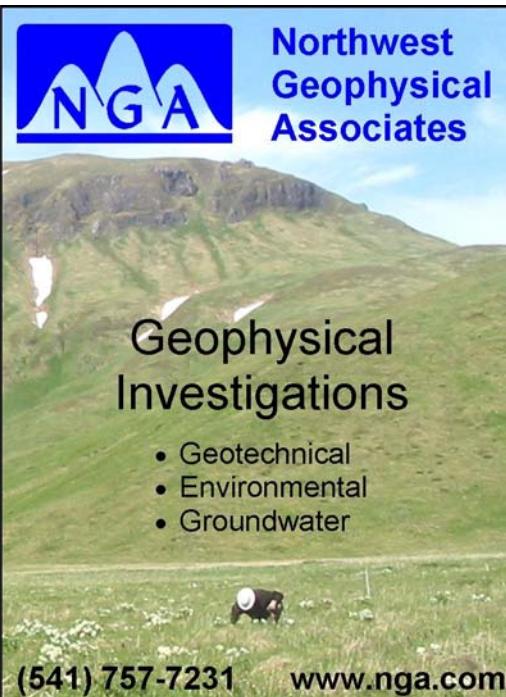
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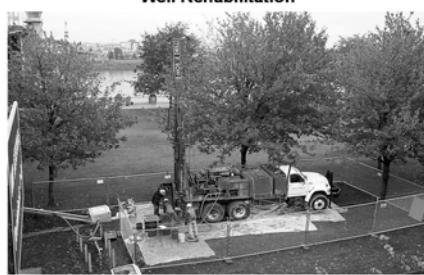
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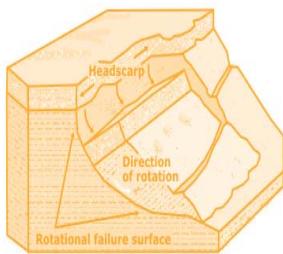
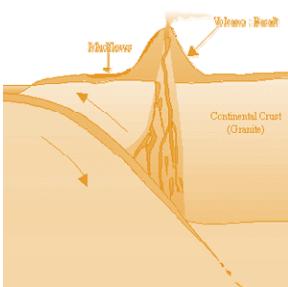
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The image shows the GeoPotential logo at the top left, featuring a stylized map of Oregon with contour lines. To the right is the company's contact information: 22323 East Wild Fern Lane, Brightwood, Oregon 97011, phone (503) 622-0154, fax (503) 622-0526, and website <http://www.geopotential.biz>. Below this is a large, bold, underlined heading "SUBSURFACE MAPPING SURVEYS". To the left of the heading are five service categories: "GROUND PENETRATING RADAR SURVEYS", "MAGNETOMETER & ELECTROMAGNETIC SURVEYS", "GRAVITY SURVEYS", and "RESISTIVITY SURVEYS". To the right of the heading are two columns of services: "PROJECTS: GEOLOGIC ENGINEERING, ENVIRONMENTAL OIL & MINERAL EXPLORATION ARCHAEOLOGICAL" and "LOCATE: VOIDS, UTILITIES STORAGE & SEPTIC TANKS FOUNDATIONS, DRAIN FIELDS WATER WELLS MONITORING WELLS". At the bottom right is a geophysical resistivity survey profile showing a cross-section of the ground with various anomalies and a depth scale from 0 to 10 meters.

Section Officers & Committee Chairs



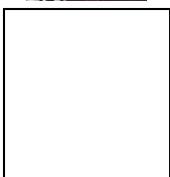
Chair:
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Delta Environmental
lglonek@deltaenv.com



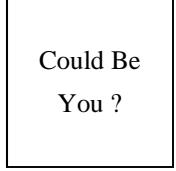
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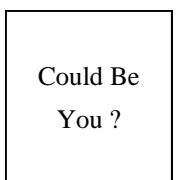
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**The Oregon Section is also on the web at <http://www.aegoregon.org>
National AEG webpage: <http://aegweb.org>**

The Oregon Section Newsletter

OREGON SECTION AEG NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Section or other Sections, and other interested people who have requested and paid a local subscription fee of \$10.00. E-mail subscriptions are free. News items are invited and should be sent to: Bill Burns, OR Section AEG Newsletter Editor, Oregon Department of Geology, 800 NE Oregon Street, Portland, OR 97232, e-mail: <bill.burns@dogami.state.or.us>, phone (971) 673-1555. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting. Advertising: business card \$100/yr; 1/4 page \$200/yr; 1/2 page \$350/yr. Please notify Bill if you have a change to your email or mailing address.

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