



Welcome to the SMU Geothermal Lab newsletter for September. Greetings to all the new members of our newsletter list that we met this summer. In this newsletter we have a wrap-up of the summer activities of our graduate students along with some interesting articles and upcoming events.

SMU Geothermal Laboratory Notes

Looking for some top-notch researchers for your next project? The SMU Geothermal Lab staff have recently completed a number of sponsored research projects and are **looking for new opportunities**. A sampling of projects we have successfully completed over recent years include:

- Continental-scale heat flow mapping and resource estimation
- Basin-scale modeling
- Thermal conductivity measurement
- Equilibrium temperature logging
- Data compilation and data analysis of National Geothermal Data System resources
- Executive education designed to give project financiers familiarity with geothermal energy

Please call or email [Maria Richards](#) (214-768-1975) or [Cathy Chickering Pace](#) (214-768-1510) today to discuss your project.

Congratulations to **Dr. Zach Frone**, a May graduate, on being awarded a **Fellowship** with the Department of Energy Geothermal Technologies Office. Zach will be working with Lauren Boyd on Enhanced Geothermal Systems. Good luck Zach!

Congratulations to **Ramsey Kweik**, a recent graduate starting his career as a physics teacher at Jesuit College Preparatory School of Dallas. Good luck Ramsey!

Dr. Matt Hornbach, Ian Richards and Maria of the SMU Huffington Department of Earth Sciences led a July field studies trip for SMU graduate students including those in the [Master of Science in Applied Geophysics](#) program, to Yellowstone - Hebgen Lake area, Montana. The students gained hands-on experience while using seismic equipment to produce a map of the lake bed, measuring heat flow in wells, and mapping fault scarps. Thank you to the Montana Bureau of

Matt Hornbach and Zach Frone logged two wells in Yellowstone National Park, then **Matt and Maria** logged and located wells in Marysville, Montana. They plan to log more wells next season. **Dave Blackwell's** work in Marysville began in the 1970's. Matt and Maria have the same enjoyment and curiosity of well logging as Dave did. They are continuing Dave's research and using the 45 years of data as a climate change indicator.

Joe Batir, a graduate student, presented his 2015 Heat Flow Map of Alaska at the Chena Renewable Energy Fair at Chena Hot Springs Resort in Alaska in August. While in Alaska Joe was able to log wells at Chena Hot Springs, and collect additional data for his research. Information of the Renewable Energy Fair is available at <http://www.chenahotsprings.com/energyfair2015/>.

Casey Brokaw, a graduate student, travelled to Denver to collect core samples from Anadarko Petroleum Corporation for his research project. He is measuring the thermal conductivity of the samples here in the Geothermal Lab. Anadarko Petroleum Corporation is generously supporting his research.

Casey Brokaw also worked with **Dr. Beatrice Magnani** of the SMU Huffington Department of Earth Sciences on the Eastern North American Margin (ENAM) Community Seismic Experiment. They collected an onshore passive source seismic refraction profile. Information on EMAN is available at <http://geoprisms.org/initiatives-sites/rie/enam/>.

Andrés Ruzo, a graduate student, has just returned from the Peruvian Amazon where he collected additional water temperature, chemistry, and biology data for his research project.

Ben Phrampus, a graduate student, took part in a successful seismic survey of the Hikurangi Margin off the east coast of New Zealand in May and June, then helped build and deploy the seismic equipment for the Hebgen Lake field studies trip in July.

The SMU Geothermal Lab, along with the SMU Huffington Department of Earth Sciences, was happy to host the August meeting of **Lone Star Desk and Derrick Club of Dallas**, and to show their members around some of the Earth Science labs. More information on Lone Star Desk and Derrick Club of Dallas is at <http://www.lonestardandd.org/>. Thanks for coming to visit us!

Congratulations

Congratulations to the newly elected members of the **International Heat Flow Committee**: Bureau Chairman Shaopeng Huang, Vice Chairman Massimo Verdoya, Past Chairman Yuri Popov, Secretary Heiner Villinger and Vice Secretary Graeme Beardsmore along with Crisan Demetrescu, Dmitry Demezhko, Andrea Förster, William Gosnold, Valiya Hamza, Robert Harris, Lijuan He, Argo Joeleth, Michael Jones, Thomas Kohl, Jacek Majorowicz, Adele Manzella, Klaus Regenauer-Lieb, Sukanta Roy, Eva Schill and Colin Williams. More information: <http://www.iaspei.org/commissions/IHFC.html>.

Geothermal News and Notes

The 2015 Geothermal Technology Office **Peer Review presentation slides** are now available online. More information: <http://energy.gov/eere/geothermal/2015-peer-review-presentations-geothermal-energy>.

Topic 2 of the GE-Statoil Grand Challenge is now open. Submit your idea on **Reduced Use of Water in Onshore Operations by September 24, 2015**. More information: <https://ninesights.ninesigma.com/web/trucking-challenge-2-statoil-ge>.

Geothermal Heat Pump News and Notes

The **Loan Programs Office** of the US Department of Energy is accepting applications for loan guarantees for Distributed Energy Projects including **ground-sourced geothermal** for heating and/or cooling. This is part of Renewable Energy and Efficient Energy Projects (REEE) Solicitation Number DE-SOL-0007154. More information: <http://www.energy.gov/lpo/title-xvii-open-solicitations>.

BusinessWire has an article on the sustainable community Whisper Valley in Austin, Texas which is utilizing **ground source geothermal technology**. The article is called Bosch Teams with Taurus

Investment Holdings to Launch Energy Smart Housing Community in Austin, Texas and is available at <http://www.businesswire.com/news/home/20150120005878/en/Bosch-Teams-Taurus-Investment-Holdings-Launch-Energy#.Vd3OcvlVhBd>.

Job Seeker

We heard from a PhD graduate who is looking for a position. His information is as follows:

My name is Michael Cole, PhD and I recently earned my Doctorate of Environmental Science and Engineering in Energy from the University of Texas at El Paso. I am a multi-disciplinary professional with 20 years of international business and engineering leadership experience, and have demonstrated successes in development and continuous improvement of global processes, services and products. Career contributions include \$M's in revenue growth and cost reduction while fostering employee, supplier and customer excellence. I hope to apply these skills with an innovative organization based in academics or business in the West. If you have a fit for a detail conscious self-starter driven to deliver sustainable and profitable actions with a passion for energy and the environment, please view my profile at <http://www.michaelpaulcolephd.com/> or via LinkedIn at <https://www.linkedin.com/pub/michael-cole-phd/1a/68b/945>.

Interesting Articles

National Public Radio aired a story called **A Lot of Heat Is Wasted, So Why Not Convert It into Power?** Listen to the story or read the transcript at http://www.npr.org/sections/alltechconsidered/2015/08/20/432738291/a-lot-of-heat-is-wasted-so-why-not-convert-it-into-power?utm_source=All+Contacts&utm_campaign=83eeb89c16-Great+NPR+story+about+Alphabet+Energy+and+WHP&utm_medium=email&utm_term=0_557cb131aa-83eeb89c16-202179093.

Harvard Business School has a report on shale plays in the US titled **America's Unconventional Energy Opportunity**. Read the report at <http://www.hbs.edu/competitiveness/Documents/america-unconventional-energy-opportunity.pdf>.

Forbes has an article titled **This Startup Wants to Use Old Oil and Gas Wells to Store Electricity** available at <http://www.forbes.com/sites/uciliawang/2015/06/16/this-startup-wants-to-use-old-oil-and-gas-wells-to-store-electricity/>.

The Department of Energy has a report titled **Life-Cycle Analysis Results of Geothermal Systems in Comparison to Other Power Systems** available at <http://energy.gov/eere/geothermal/downloads/life-cycle-analysis-results-geothermal-systems-comparison-other-power>.

Other Event Details

Registration is open for the **22nd Border Energy Forum, October 14 - 16, 2015** in San Diego, California. More information: <http://borderenergyforum.org/>.



This year's **TREIA conference** is focused on our Grids, the changes and impacts for all energy suppliers and users. **GridNEXT 2015**, November 11-13, 2015 in Houston, Texas. Find out about registration, sponsorship or exhibition space at <http://www.treia.org/conference/>. #GridNEXT

Calendar

September 20 - 23, 2015 - Geothermal Resources Council Meeting and Geothermal Energy Association EXPO, Reno, Nevada. More information: <http://www.geothermal.org/meet-new.html>.

October 14 - 16, 2015 - 22nd Border Energy Forum, San Diego, California. More information: <http://borderenergyforum.org/>.

October 20, 2015 - National Geothermal Day. More information: <http://www.geothermalday.com/>.

November 3-4, 2015 - NREL Industry Growth Forum, Denver, Colorado. More information: <http://www.industrygrowthforum.org/>.

November 11-13, 2015 – GridNEXT 2015, Houston, Texas. More information on the **TREIA** website: <http://www.treia.org/conference/>.