

Welcome to the SMU Geothermal Lab newsletter for January. This month we have lots of information on upcoming events, a new book, a new Global Renewable Energy Prospector, and a list of some of the resources available on the SMU Geothermal Lab website http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab.

SMU Geothermal Laboratory Notes

Maria Richard's term as President of the Board of Directors for the Geothermal Resources Council has begun. She is always open to new ideas and suggestions. Her contact for GRC items is GRCPres@geothermal.org. For SMU geothermal inquiries, Maria is still at mrichard@smu.edu.

Matt Hornbach is organizing a NSF – IODP workshop "Drilling strategies for assessing links between Quaternary Gulf Stream dynamics, pore pressure evolution, and slope stability on the Western North Atlantic Margin." This proposal development workshop will be held April 11-13, 2017 in Dallas, Texas. Applications due February 20, 2017. More information: http://usoceandiscovery.org/workshop-slope-stability/.

Congratulations

Congratulations to **Dave Boden** of Truckee Meadows Community College in Reno, NV on the publication of his book **Geologic Fundamentals of Geothermal Energy**. More information:

https://www.crcpress.com/Geologic-Fundamentals-of-Geothermal-Energy/Boden/p/book/9781498708777.

Congratulations to Innovative Defense on their shaped charge technology that provides lateral drilling to connect a heating loop between the vertical bores in an Enhanced Geothermal System. More information: http://innovativedefense.net/enhanced-geothermal.php.

Learn Something New

Looking for a **classroom activity** utilizing Google Earth? The Critical Zone Observatories has a classroom activity sheet on the **Valles Caldera National Preserve** in New Mexico. http://www.smu.edu/-media/Site/Dedman/Academics/Programs/Geothermal-

<u>Lab/Documents/TeacherMaterials/Valles Caldera Teacher Sheet.ashx?la=en.</u>

Geothermal News and Notes

The **Energy Institute** at the University of Texas at Austin has released their **Full Cost of Electricity study**. The study includes **interactive maps** of the levelized cost of electricity (LCOE) by county and technology. More information: http://energy.utexas.edu/the-full-cost-of-electricity-fce/.

IRENA is inviting people to review the new IRENA Global Atlas 3.0 beta, a **Global Renewable Energy Prospector**. Test the prospector at https://globalatlas-uat.masdar.ac.ae/ and provide feedback at potentials@irena.org.

National Energy Technology Laboratory (NETL) researchers are combining fossil energy research with studies of geothermal energy potential in Appalachia. This is part of a NETL initiative called Synergistic Fossil Integrations with Renewable Energy (SFIRE). More information: https://energy.gov/fe/articles/netl-group-combines-fossil-energy-research-studies-geothermal-energy-potential.

Students, are you looking for a Master's project? Ball State University has funding for 2 Master's students to work on **generating heat flow maps from petroleum exploration data**. Contact Professor Kristen Nicholson at knichols@bsu.edu for more information.

Geothermal Heat Pump News and Notes

Registration is open for **Dig In 2017** IGSHPA Conference & Expo, **March 14-16, 2017** in Denver, Colorado. More information: http://www.igshpa.okstate.edu/conf/.

This Month's Highlighted Resources

SMU Geothermal Lab Resources

- Temperature-at-depth (3.5 to 10 km) maps, high resolution images available for purchase http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/DataMaps/TemperatureMaps
- Geothermal Map of North America in GIS format http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/DataMaps/GeothermalMapofNorthAmerica
- Thermal conductivity analysis of core or crushed rock samples, discuss your project with us http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/LabResearch/ThermalConductivity
- Temperature logging including a temperature-depth curve tutorial http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/LabResearch/TemperatureLogging
- Conference past presentations are available for download http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/Conference/PastPresentations
- Oil and gas wells for geothermal energy generation
 http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/LabResearch/OilandGas
- Technology list for generating geothermal energy from oil and gas wells
 http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/LabResearch/OilandGas/TechnologyList
- Geothermal heat pump information for residential and commercial properties http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/HeatPumps

Other Event Details

DOE Southwest Combined Heat and Power TAP is hosting a **Lunch and Learn workshop** on CHP in the Oilfield on **February 7, 2017** in Houston, Texas. Contact <u>AWilcox@HARCresearch.org</u> for more information. If you missed one of their **2016 webinars**, you can find information at http://www.southwestchptap.org/events-archive.

Abstracts are being accepted for a number of geothermal symposia at the **IAG-IASPEI Joint Scientific Assembly** in Kobe, Japan, July 30 - August 4, 2017 including:

- S24 Methods and instruments of experimental geothermics application and recent evolution
- S25 Development and application of geothermal databases
- S26 Exploring connections between heat flow and tectonics
- S27 Geothermal energy: Ground source heat pump, hydrothermal system, and hot dry rocks Abstracts are **due February 8, 2017**. More information: http://www.iag-iaspei-2017.jp/iaspei_symposia.html.

Registration is open for the **SPE/GRC Workshop** "High-Temperature and Corrosion in Drilling and Production - Exploring Geothermal and Oil and Gas Synergies" on March 21-22, 2017 in San Diego, California. **Early bird rates until February 10, 2017**. More information:

http://www.spe.org/events/en/2017/workshop/17jsnd/homepage.html.

Registration is open for the **SedHeat workshop**, "Unlocking the Energy Elephant: Science and Engineering for Geothermal Energy in Sedimentary Basins," **March 1-4, 2017** in Salt Lake City, Utah. More information: http://www.unlockelephant.org. Maria Richards will be speaking at this event.

Registration is open for the Geothermal Energy Association's International Geothermal Forum, March 7, 2017 in Washington, DC. More information:

https://www.gifttool.com/registrar/ShowEventDetails?ID=1872&EID=23494.

A Call for Papers has been issued by Sixth Annual Conference for the Development and Utilization of Deep Geothermal Energy being held March 26-29, 2017, in Beijing, China. The full announcement is available at https://geothermal.org/PDFs/CUGB-Call-for-Paper-2017.pdf. For more information contact Prof. Kewen Li at geopowerchina@163.com.

The **Geothermal Resources Council** has issued a **Call for Papers** for their 41st Annual Meeting, October 1-4, 2017 in Salt Lake City, Utah. Papers are **due April 28, 2017**. More information: https://geothermal.org/Annual Meeting/call for papers.html.

Calendar

February 7, 2017 - DOE Southwest Combined Heat and Power TAP **Lunch and Learn workshop** "CHP in the Oilfield," Houston, Texas. More information: <u>AWilcox@HARCresearch.org</u>.

February 13-15, 2017 - Stanford Geothermal Workshop, Stanford, California. More information: https://pangea.stanford.edu/researchgroups/geothermal/stanford-geothermal-workshop.

February 15-16, 2017 – GeoTHERM expo & congress, Offenburg, Germany. More information: http://www.geotherm-germany.com/.

March 7, 2017 - Geothermal Energy Association's International Geothermal Forum, Washington, DC. More information: https://www.gifttool.com/registrar/ShowEventDetails?ID=1872&EID=23494.

March 14-16, 2017 – Dig In 2017 IGSHPA Conference & Expo, Denver, Colorado. More information: http://www.igshpa.okstate.edu/conf/.

March 21-22, 2017 - SPE/GRC Workshop High-Temperature and Corrosion in Drilling and Production: Exploring Geothermal and Oil and Gas Synergies, San Diego, California. More information: http://www.spe.org/events/en/2017/workshop/17jsnd/about.html.

March 26-29, 2017 - Sixth Annual Conference for the Development and Utilization of Deep Geothermal Energy, Beijing, China. More information: geopowerchina@163.com.

April 5-7, 2017 - EMR2017 in Lisbon, Portugal. More information: http://emr2017.org/.

April 11-13, 2017 - **NSF – IODP workshop** "Drilling strategies for assessing links between Quaternary Gulf Stream dynamics, pore pressure evolution, and slope stability on the Western North Atlantic Margin," Dallas, Texas. More information: http://usoceandiscovery.org/workshop-slope-stability/.

April 13-14, 2017 - NREL **Industry Growth Forum**, Denver, Colorado. More information: http://www.nrelforum.com/Home.

April 25-27, 2017 - AAPG **Geothermal Cross Over Technology Workshop**, Durham, United Kingdom. More information: http://www.aapg.org/global/europe/events/workshop/Articleid/32280/geothermal-cross-over-technology-workshop#151742122-details.

October 1-4, 2017 – GRC Annual Meeting and GEA GEOEXPO+ Salt Lake City, Utah. More information: https://geothermal.org/meet-new.html and https://geothermalexpo.org/.

Suggestions for an upcoming newsletter? Email geothermal@smu.edu. To unsubscribe, email geothermal@smu.edu.