# **BASIN & RESERVOIR LAB**

On June 1st, 2015, three Lab mem-

Martyns-Yellowe

considerable heavy lifting in weeks

leading up to the finals. The team is

(Earth



Basin & Reservoir Lab

Professor Grant Wach & Dr. Ricardo Silva

# Dalhousie EAGE Team wins **1St**



Prof. Grant Wach, Charles Carlisle, Darragh O'Connor, Connor Wentzell, Adjunct Prof. Bill Richards

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grateful for the support of Professor Adam Donaldson in Engineering who arranged advanced training in reservoir modelling with the generous donation of software from Schlumberger, as well as recent Earth Sciences and Petroleum MEng grad Trevor Kelly and Adjunct Professor Bill Richards, who provided invaluable mentorship to the students. The FIELD competition is hosted by the European Association of Geologists.

The EAGE student foundation was started by Shell with additional support through ExxonMobil, Total and in particular this year- Repsol who generously provided the data set. The companies see the practical experience provided by the competition as excellent preparation for students that are interested in careers in the Energy sector. The EAGE FIELD Challenge is an excellent example of the multi-disciplinary experiential learning opportunities that we are able to provide at Dalhousie through generous sponsorship from our industry partners. As 4th year student Connor Wentzell said, "the practical training providing the FIELD competition is the best course I have taken in university". The team has won €3000 for the Dalhousie EAGE Student Chapter, as well as international recognition.

### **Research News**

- The Source Rock and Geochemistry of the Central Atlantic Margins Consortia Field Seminar of the Wessex Basin of Southern England began early this June and was followed by field work in Morocco. See photos on page 2.
- The following papers have been accepted for presentation at the 2015 Goldschmidt Conference, in Prague, CZ, this August:
  - Preliminary evaluation of the compositional sedimentary variation of the Jurassic Iroquois and Mohican formations of the Scotian Basin (Ricardo L. Silva, Philip Sedore, Naomi Plummer, Grant Wach)
  - Evidence of Pliensbachian climatic hot snaps and organic matter production and preservation in the Lusitanian Basin (Portugal) (Ricardo L. Silva, L.V. Duarte).
  - Pyrite framboid analysis from the Sinemurian-Pliensbachian Água de Madeiros Formation (Lusitanian, Basin, Portugal) ( Ricardo L. Silva, M.P. Jorge, L.V. Duarte, Philip Sedore, Grant Wach).

### **Students attend** 77th EAGE Conference in Madrid, Spain





Having won the EAGE online Geo-Quiz last March, three additional Dalhousie team members were able to attend the EAGE conference in Madrid—Paige Montgomery, Zach Feener, and EAGE Chapter President, Phillip Sedore. Two Dalhousie teams competed in groups of three, answering skill testing questions requiring them to put their geoscience knowledge to the

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test. The Geo-Quiz was first held in 2007 in London, and has since been one of the highlights of EAGE's Annual Meetings. Overall, Dalhousie teams preformed exceptionally, placing in the top half of 27 international teams.



What's happening in the

## BASIN & RESERVOIR LAB

June 2015

#### Wessex Basin Field Seminar a success



Early this June, Prof. Wach, Dr. Silva, and Prof. Stephen Hesselbo (Exeter University), led a five day field seminar to the Wessex Basin of Southern England, as part of the Source Rock and Geochemistry of the Central Atlantic Margins Project. The seminar explored basin development and hydrocarbon systems of the Mesozoic and Cenozoic strata, examining outcrops of Triassic, Jurassic, Cretaceous, and Cenozoic rocks along the South Coast of England from Exeter in the West to the Isle of Wight in the East. The seminar highlighted elements of source, reservoir, and seals, migration pathways, timing, and trapping mechanisms. Industry professionals and students alike benefited from the seminar, gaining hands-on field experience while enjoying the coast line of Southern England.



#### Prof. Wach & Dr. Silva conduct Field work in Morocco

After the conclusion of the Field Seminar in Southern England, Prof. Wach and Dr. Silva travelled to Morocco to conduct additional field work for the Source Rock and Geochemistry of the Central Atlantic Margins Project. Along side Prof. Driss Sadki (Moulay Ismail University, Meknes, Morocco) and Prof. Luis V. Duarte (University of Coimbra, Portugal), the group studied and sampled several stratigraphic sections of the Middle and High Atlas of Morocco including Ait Moussa (Middle Atlas), Foum Zidet, and Foum Tillicht (High Atlas). The group focused on several aspects of the Lower Jurassic record in these sections, including organicrich facies, the Toarcian Oceanic Anoxic Event, and turbiditic sedimentation. Prof. Wach and Dr. Silva also met with ONHYM the Moroccan national energy company to discuss future collaboration opportunities.



#### SIFT: "an unbelievable experience" -Megan Glen



Each spring, the Canadian Society of Petroleum Geologists (CSPG) provides 3rd year undergraduate students from across the country with an invaluable opportunity to attend SIFT (Student Industry Field Trip) in Alberta, Canada. SIFT is the CSPG's flagship student program where one student from each Canadian university (that offers a geosciences or geological engineering degree) is brought to Calgary for a comprehensive introduction to the petroleum industry. Founded in 1978 by Bill Ayrton, the SIFT program was originally a four day course that has now grown into an intense two-week program.

This year, Earth Science student Megan Glen attended the program and was blown away by the experience.

#### Megan writes,

"SIFT was such an unbelievable experience and thank you for suggesting that I attend. I don't think I have ever learned so much information in a two week period. I am proud to say that our team was awarded the Bill Ayrton Technical Award for the exploration game. I was lucky to have such great team members".

The program includes an extensive lecture series, core workshops, field trips, and a petroleum exploration game. SIFT has become successful because of the considerable support received from the petroleum industry and from the CSPG's Educational Trust Fund each year, and has considerable impact on participating students.





Professor Grant Wach & Dr. Ricardo Silva

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