

Petroleum Geology TA3820
Written Examination, July 1, 2011

Prof. Dr. Stefan M. Luthi

PLEASE NOTE: The questions should be answered as concisely as possible (this is part of the rating – chose keywords where possible but make sure your answers are still comprehensive). And PLEASE write clearly so that I have a fair chance of deciphering your answers!

Each question counts equally towards the final score (20%). The bonus question can give you an extra 5%.

Please mention your name and student number at the top of each sheet.

1. Describe the organic and the inorganic carbon cycle. How is carbon stored in the Earth's interior in the two cycles?
2. What are the principal *differences* between primary and secondary oil migration?
3. Describe the components found in petroleum and their major uses.
4. Describe the main properties of the main reservoir rock and pore types.
5. Make a cross-section of a combination trap and associated layering and show the possible hydrocarbon accumulation.

Bonus question: Why is ethanol a less effective fuel than gasoline?