

The BASE Newsletter, vol. 3, issue 8



The long Easter weekend, the preparation to move rig MDX315 from Site 4B to Site 1 (Fairview Mine) and the heavy downpours in South Africa reduced our drilling activity in the past two weeks. Forest roads leading up to Site 5 were slippery enough to become hazardous, and Site 5 was engulfed in mist and downpours; the vehicles began to run grooves into the grassland. Fortunately, the ground is drying up now, and rainy season may be ending soon. On April 22, the onsite team hosted SANHU productions from Nelspruit again to film more drilling, now featuring Phumi as an up-and-coming geoscientist in various outreach roles. (The image shows Rod, though !)



The drill rig at Site 5A continues to often proceed at 30 m a day. Core from the site, beginning where rocks became firm at 28.92 m, shows turbidites consisting of massive (liquefied?), well-sorted fine-grained sandstone interbedded with laminated black shale. The whole sequence, >70 m thick, is slumped and shows contorted bedding and numerous beautiful soft-sedimentary deformation structures. Several generations of crosscutting late quartz veins may indicate proximity to the northern hinge of the Stolzburg Syncline, a “catamaran”-type structure.




Tikhko Mufamadi and Victor Ndazamo, two young local geologists whom we hired in February, have grown into all-round onsite team members. They log and describe core, lead tour groups, type news and are helpful in many other ways. Their work has become the more important because Brooke Johnson returned to his postdoc position at Liege after a three-week stay with the onsite team in Barberton. An incoming MSc student from UJ will only arrive (for one week) next week. We welcome any help in processing core in the BIAS Hall !

EARTH SCIENCE
Earth's oldest land ecosystem spotted in drilled cores
Campaign probes for earliest signs of oxygen-producing life

By Paul Fournelle

Beneath the Barberton Mafic Sequence, hidden in South Africa's ancient gold fields, lies an ancient ecosystem that may be the oldest ever. Scientists have drilled into the Earth's crust to find out.

The Barberton Mafic Sequence is a 3.5-billion-year-old volcanic complex in South Africa. It is one of the oldest and best-preserved examples of a continental crust on Earth. The Barberton Mafic Sequence is a 3.5-billion-year-old volcanic complex in South Africa. It is one of the oldest and best-preserved examples of a continental crust on Earth.



Earth's oldest land ecosystem spotted in drilled cores
Campaign probes for earliest signs of oxygen-producing life

By Paul Fournelle

Beneath the Barberton Mafic Sequence, hidden in South Africa's ancient gold fields, lies an ancient ecosystem that may be the oldest ever. Scientists have drilled into the Earth's crust to find out.

The Barberton Mafic Sequence is a 3.5-billion-year-old volcanic complex in South Africa. It is one of the oldest and best-preserved examples of a continental crust on Earth. The Barberton Mafic Sequence is a 3.5-billion-year-old volcanic complex in South Africa. It is one of the oldest and best-preserved examples of a continental crust on Earth.

The statement “... better data can probably only be obtained by research drilling” at the end of one of our recent scientific publications on a particular Moodies outcrop triggered a short e-mail question by a journalist from Science Magazine. The ensuing e-mail exchange resulted in an article in the News section in a March issue of Science. The young journalist interviewed Christoph and several team members by telephone and wrote a perfectly correct and upbeat article without going through a proofreading stage.

Frohes Forschen!
Christoph Heubeck and Nic Beukes