Mont Terri Rock Laboratory

Field report: June 7-13, 2021 (Phase 26)

FE-M (Long-Term Monitoring of the Full-Scale Emplacement) experiment
- On Thursday, L. Keller and M. Marsano (roXplore) measured cross-hole seismics between GT-1 and GT-2 and re-installed the long-term measurements (Figure 1).

MH (Long-Term Monitoring of Displacements) experiment
- From Monday to Friday, P. Mahler, R. Stibler (FHNW) and A. Schlatter (swisstopo) coached 26 students from FHNW for the levelling of all the fix points inside and around the rock lab (Figure 2). Six groups of 4-5 students measured over 100 fix points.

SI-A (Seismic Imaging ahead of and around Underground Infrastructure) experiment
- From Tuesday to Thursday, B. Wawerzinek, R. Esefelder, F. Brethauer, N. Bieda (GFZ Potsdam) performed seismic measurements along a 400 m long section in the safety gallery (Figure 3). They had a 120 m long land streamer with 120 geophones and a vibration source with a sweep of 30-120 Hz.

SW-A (Large-Scale Sandwich Seal in Opalinus Clay) experiment
- On Thursday, S. Schefer made an inspection inside shaft 1 and observed humidity on the bottom lid of the metallic abutment. It seems that this water is dripping down from one of the many cables of the cable string inside the metallic abutment.
- On Friday afternoon, V. Regard stopped the pressurized injection and switched back to injection via gravity.
- Wednesday next week another intervention by AMBERG team is planned for finding and fixing the leak.

Varia
- On Friday, the 4th year apprentices from swisstopo visited the lab and performed photogrammetry together with S. Schefer at the Main Fault (Figure 4). The models produced with the telephones were then compared with the one done with a calibrated camera.

Visits

| Mo         | 07.06.2021 | University of Applied Sciences North West (FHNW), Muttenz | 29 | R. Nicol, H. Hauser |

D. Jaeggi and S. Schefer, June 12, 2021
Figure 1: **FE-M**: L. Keller during the measurements in GT-1 (Photo: M. Felder, swisstopo).

Figure 2: **MH**: Two students from FHNW are setting up the instrument (Photo: M. Felder, swisstopo).
Figure 3: SI-A: B. Wawerzinek during the measurements in front of Niche P4. In the background you can see the streamer and the source (Photo: M. Felder, swisstopo).

Figure 4: Varia: The swisstopo apprentices during the photogrammetry with their telephones (Photo: M. Felder, swisstopo).