Mont Terri Project Underground Rock Laboratory

Report period: October 20–26, 2025

Assembled and edited by swisstopo, St-Ursanne

Spotlight of the week: Connection of the fibers from BPF-7 to the connecting cable for Niche CO_2.

CL (CO2LPIE-CO2 Long-Term Periodic Injection) experiment

- On Monday, October 20, D. Jaeggi and J. Windisch (swisstopo) connected the interval BCL-I2 and took a sample before and after the circulation.
- On Monday, October 20, S. Schefer (swisstopo) took sample #4 from the circulation interval.
- On Wednesday, October 22, J. Windisch (swisstopo) took sample #5 from the circulation interval.
- On Friday, October 24, S. Schefer (swisstopo) took sample #6 from the circulation interval.

DR-C (Diffusion in a Thermal Gradient) experiment

- On Monday, October 20, J. Windisch (swisstopo) inverted the flow from regular to inverse and back to increase the flow.
- On Wednesday, October 22, J. Windisch (swisstopo) inverted the flow from regular to inverse and back to increase the flow.
- On Thursday, October 23, Y. Lettry (Solexperts) installed a new electric valve with timer into the control unit of BDR-C1 to reverse the circulation flow automatically.

FS-B (Imaging the Long-Term Loss of Faulted Host Rock Integrity) experiment

- From Monday to Friday, October 20–24, P. Cook (LBNL) set up the injection pump and the flow board, prepared the winch and the different components needed to lower the packer for the injection. As soon as the packer arrives on site, the actual experiment can finally begin.
- On Monday, October 20, M. Robertson and S. Glubokovskikh (LBNL) finished the installation of the CASSM borehole cables and prepared the fiber cables for splicing (**Figure 1**).
- From Monday to Wednesday, October 20–22, V. Sobolevskaia (LBNL) prepared the data acquisition for the acoustic piezo-electric system.
- From Tuesday to Friday, October 21–24, M. Robertson and S. Glubokovskikh (LBNL) spliced and tested all the newly installed fibers for the upcoming experiment.
- From Tuesday to Wednesday, October 21–22, T. Wood (LBNL) performed the necessary maintenance and preparation work for the CASSM system for the upcoming injection. This included calibrating the GPS-clock outside the lab to ensure proper timing for all the seismic data acquisition. Luckily all systems were still functioning properly after all this time since the last intervention.
- From Thursday to Friday, October 23–24, T. Wood and V. Sobolevskaia (LBNL) tested various CASSM sweeps to get it working with the TERRA15 interrogator.
- On Thursday, October 23, S. Schefer and J. Windisch (swisstopo) filled the boreholes BFS-B13 and BDFS-B14b with tap water for the acoustic piezo electric sources (**Figure 2**).

HT (Hydrogen Transfer in Opalinus Clay) experiment

- On Thursday, October 23, Y. Lettry (Solexperts) calibrated the electrodes, changed the pressure set point to 2.2 bar, reinstalled Heitolab and checked the USB-connections to the pressure regulator.

PF-A (Progressive Evolution of Structurally-Controlled Overbreaks: Long-term monitoring, hydromechanical simulation and rock testing) experiment

- On Tuesday, October 21, M. Facchini (Iridis Solutions) with assistance of S. Schefer (swisstopo) spliced the fibre optic cables of the PF-A experiment to the connection cable leading to Niche CO_2 in order to be able to measure all the fibers of different experiments from one position (**Figure 3**).
- On Tuesday, October 21, J. Windisch (swisstopo) read out the RHT Hydry dataloggers.

SW-A (Large-Scale Sandwich Seal in Opalinus Clay) experiment

- On Monday, October 20, S. Schefer (swisstopo) replaced the 4point light Schwartech on behalf of M. Furche (BGR) and set it to remote mode.
- On Wednesday, October 22, J. Windisch (swisstopo) refilled the HPT of shaft 1.

Varia

- From Monday to Friday, October 20–24, J. Bender (swisstopo) cleaned all geological windows, posters and models in the lab.

Visits

Day	Date	Group Name	Group Size	Visitors Guide
Mon	20.10.2025	**PSI Gruppe**	29	H. Sager (Nagra)
Wed	22.10.2025	**BFE / ENSI / BASE**	7	C. Nussbaum (swisstopo) D. Jaeggi (swisstopo) T. Vogt (Nagra)
Wed	22.10.2025	**Schweizerische Gesellschaft Der Kernfachleute**	20	R. Nicol (swisstopo)
Thu	23.10.2025	**Zivilschutz Kanton Freiburg**	18	R. Nicol (swisstopo)
Fri	24.10.2025	**Swisstopo, Alain Buogo**	5	R. Nicol (swisstopo)
Sat	25.10.2025	**Twerenbold Reisen AG**	21	H. Sager (Nagra)
Sat	25.10.2025	**Universität Basel**	12	H. Sager (Nagra)

Figures

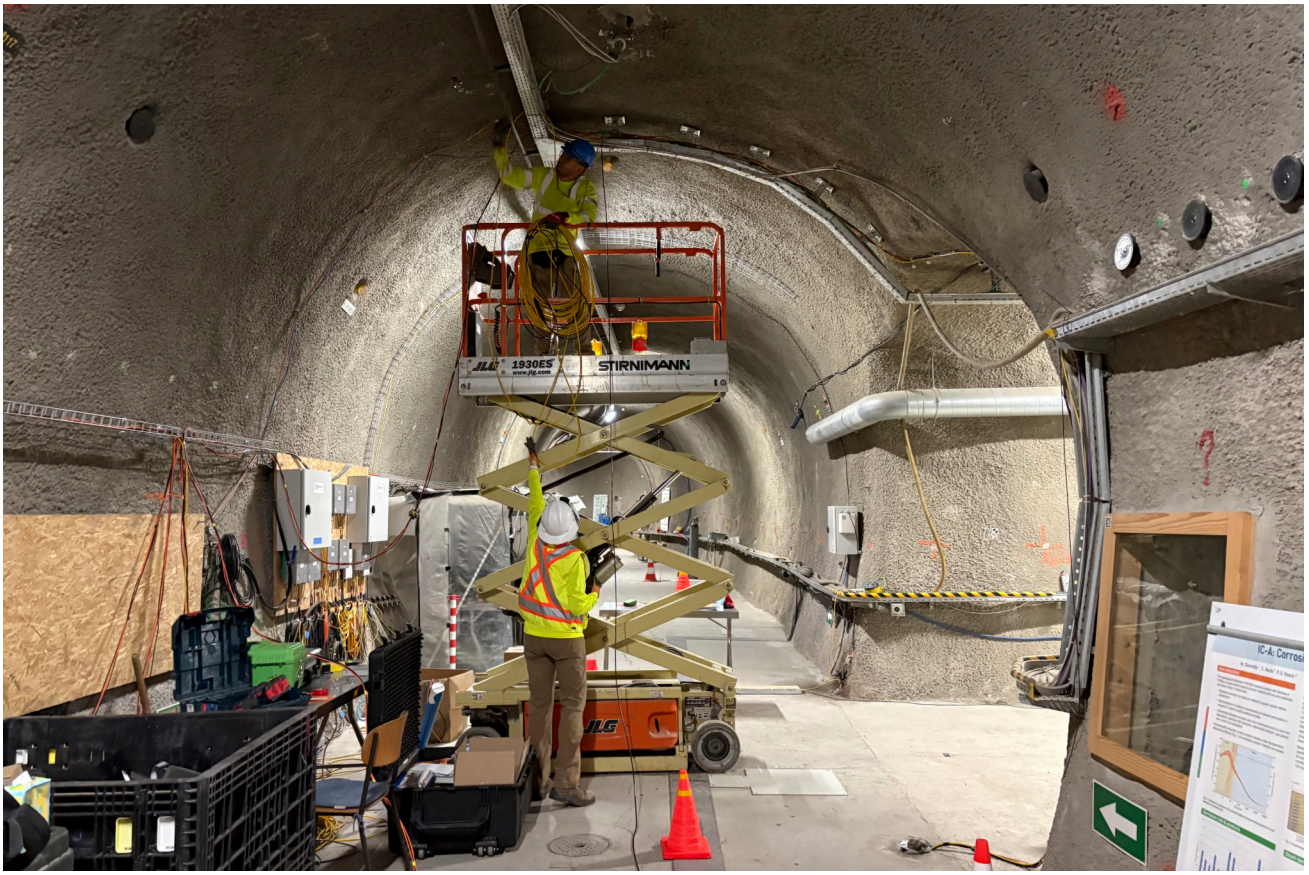

Figure 1: FS-B: The last cables are fixed around the rooftop (S. Schefer, swisstopo).

Figure 2: FS-B: 350 l of water are needed for a borehole of 78 m depth (S. Schefer, swisstopo).

Figure 3: PF-A: Connection of the fibers from BPF-7 to the connecting cable for Niche CO_2 (S. Schefer, swisstopo).