

# Mont Terri Project

Underground Rock Laboratory

ANDRA BGR CHEVRON CRIEPI DOE ENRESA ENSI FANC GRS HELMHOLTZ IRSN JAEA NAGRA NWMO OBAYASHI RWM SCK•CEN SWISSTOPO TOTAL

## Mont Terri Rock Laboratory

Field report: August 27<sup>th</sup> – September 2<sup>nd</sup> 2018 (Phase 24)

### Distribution

#### Authorities

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EC: Ch. Davies

#### Delegates of the Project Partners

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Obayashi: M. Fukaya  
RWM: S. Thompson  
SCK•CEN: C. Bruggeman  
Swisstopo: A. Möri  
TOTAL: A. Brisset

#### Principal Investigators and Experiment Delegates of Phase 24 experiments

ANDRA (E. Huret, G. Armand, A. Albrecht, J. Delay, Y. Linard, S. Necib, A. Vinsot, P. Henocq), BGR (K. Schuster, J. Massmann, S. Costabel, W. Graesle, C. Ostertag-Henning, H. Shao, A. Schippers, J. Hesser, T. Kneuker, G. Ziefle, D. Rebscher), CHEVRON (R. Ewy, H. Goodman), CRIEPI (T. Oyama, S. Yokoyama), DOE (P. Nair, J. Birkholzer, J. Rutqvist, Y. Guglielmi), ENRESA (J.C. Mayor), ENSI (M. Herfort, B. Graupner, J. Hansmann, E. Saraiva, M. Sentis), FANC (F. Bernier, P. De Cannière, B. Guiot, G. Pochet, M. Surkova), GRS (K. Wieczorek, O. Czaikowski), Helmholtz (M. Kuehn, S. Lueth, A. Cherkouk, A. Vieth), IRSN (J.-M. Matray, C. Wittebroodt, P. Dick), JAEA (K. Tanai, K. Aoki), NAGRA (O. Leupin, J. Becker, N. Diomidis, F. Kober, D. Traber, B. Garitte, V. Cloet, L. Cantieni, S. Giger, N. Giroud, G. Deplazes, S. Koehler, A. Reinicke), NWMO (L. Kennell-Morrison, S. Briggs, H. Kasani, K. Birch, J. Binns, P. Keech, T. Yang), OBAYASHI (M. Fukaya, Y. Kimura), RWM (S. Thompson, S. Norris, R. McLaverty, R. Hibberd, M. Bailey, J. Pearson, M. Cowley, H. Paireudeau), SCK•CEN (C. Bruggeman, D. Jacques, M. De Craen, N. Bleyen, N. Maes), Swisstopo (A. Moeri, P. Bossart, C. Nussbaum, D. Jaeggi, C. Minnig, S. Schefer), TOTAL (A. Brisset)

#### Supporting Research Organisations

Paul Scherrer Institute PSI: S. Churakov, M. Glaus, Th. Gimmi, L. van Loon  
ETHZ: S. Löw, M. Ziegler, S. Wiemer, A. Zappone  
EPFL: L. Laloui, R. Bernier-Latmani, M. Violay, B. Lecampion

#### Project Management

Swisstopo: C. Nussbaum (Project Manager), T. Theurillat (Site Manager), S. Schefer (Deputy Site Manager), D. Jaeggi (Research Associate)  
GGT: F. Burrus (Project Engineer), Th. Küttel, R. Daneluzzi

## Construction of Gallery 18

- The excavation reached GM 44.5 on Friday evening, August 31. This is a progress of 7.5 m in week 35. The gallery is now entirely drilled in the Opalinus Clay and has left the Passwang Fm.
- On Tuesday, August 28, convergences in Ga18 were measured by D. Jaeggi and T. Theurillat (**Figure 1**).

## CS-D (CO<sub>2</sub>: Studying Caprock and Fault Sealing Integrity) experiment

- On Tuesday, August 28, the drilling company Geosonic installed and started with the borehole BCS-D6. It is a vertical borehole with a diameter of 131 mm and a depth of 36.9 m.
- On Wednesday, August 29, M. Grab and Q. Wenning (ETH Zurich) came on site to prepare the sampling and installation of the CS-D boreholes
- On Thursday, August 30, A. Zappone, M. Luković and Q. Wenning (ETH Zurich) started mapping the cores of BCS-D6 with the assistance of D. Jaeggi (swisstopo).
- On Friday, August 31, M. Luković, M. Grab and Q. Wenning (ETH Zurich) continued the mapping of the existing cores, assisted by C. Nussbaum (swisstopo).

## MB-A (Hydromechanical Characterization of the Sandy Facies before and during Excavation) experiment

- On Monday, August 27, the drilling company Geosonic finished the borehole BMB-A9.
- Monday and Tuesday, August 27–28, R. Gubig and T. Kostrewa (Glötzl Baumesstechnik) finished grouting of the four stress monitoring stations (**Figure 2**).

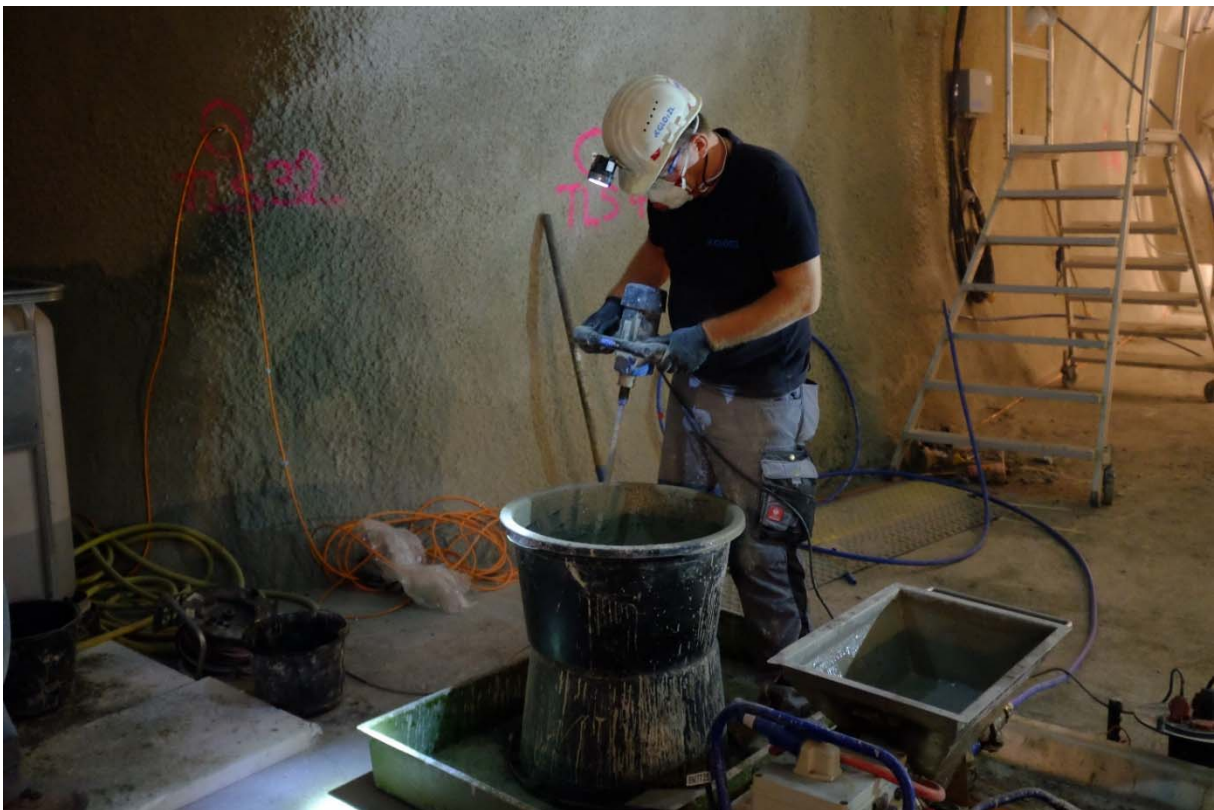
## Visits

Day	Date	Name of the Group	Visitors	Guides
Mon	27.08.2018	CONSENEC AG	13	P. Senn (Nagra) G. Fiedler (swisstopo)
Tue	28.08.2018	High school Münchenstein	19	G. Fiedler (swisstopo)
Wed	29.08.2018	Commission de Suivi	10	P. Bossart (swisstopo) T. Theurillat (swisstopo) F. Burrus (GGT)
Fri	31.08.2018	Vitaris AG	20	M. Pretalli (swisstopo) H. Hauser (freelance)
Sat	01.09.2018	Municipal council Bülach	10	L. Oesch (Nagra)

C. Nussbaum, S. Schefer, D. Jaeggi and R. Raselli, August 31<sup>th</sup>, 2018



**Figure 1: Ga18:** D. Jaeggi and T. Theurillat (swisstopo) measuring convergences in Ga 18 (Photo: R. Raselli, swisstopo).



**Figure 2: MB-A experiment:** The team from the company Glötzl preparing cement for the grouting (Photo: R. Raselli, swisstopo).