

Little Dome C

Beyond EPICA Oldest Ice Drilling Site (75.29917 °S, 122.44516 °E)

Situation Report 26, 22. December 2023

Personnel @LDC:

Saverio Panichi (ENEA, Camp Leader), Olivier Alemany (CNRS), Philippe Possenti (CNRS), Matthias Hüther (AWI), Rémi Dallmayr (AWI), Gunther Lawer (AWI), Johannes Lemburg (AWI), Andrea Ceinini (ENEA), Federico Scoto (CNR), Tamara Gerber (UCPH), Iben Koldtoft (UCPH), Julien Westhoff (UCPH), James Veale (BAS), Michaela Mühl (UNIB), Fortunat Joos (UNIB), and Inès Gay (IPEV)

Weather at LDC 5 pm: sunny and nice; temp.: -18°C; wind: 0.2 m/s



After a few adjustments, we resumed drilling in "routine" mode. Still using the 4-meter AWI drill, we are once again able to make 8 to 9 runs a day, while producing 4.5-meter cores. We're now out of the brittle zone and the cores are much more "solid".

We've tried to process the cores produced at the start of the season in the brittle zone, but they're still too fragile to cut. We decided to let them relax and store them in a container under the snow. We are now successfully processing ice cores from below 950m, which is below the brittle zone. Cutting now works very well and we are up to speed again.

We also had a nice zoom meeting with the EPICA SSC.

What we did today at LDC:

- We continued to drill in shifts;
- We continued processing ice drilled this year and processed 52m in shifts. We reached 1000m depth today :)
- We continued drilling with the IGE's dry shallow drill, preparing now core boxes for LSCE;
- We continued the BAS geophysics measurements.





Figure 1: The impressive tilting trench: photo: O. Alemany



Figure 2: Having a visio with the BEOI SSC. Photo :J. Westhoff

End of day statistics at 19h30

Driller's depth: 1154.42 m, in between 19h30 yesterday and today 19h30 we made 9 proper drilling runs (drillers delta depth: 4.47, 4.44, 4.52, 4.45, 4.34, 4.15, 4.08, 4.52 and 4.53) for a total length of 39.5 meters (drillers delta depth);

Logger's depth: 1151.55 m

Current processing depth: 1000 m, daily total: 52 m, season total: 674 m.

OA, MH, JW, and SP, 22.12.2023

