

Little Dome C

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

Situation Report 59, 14. January 2025

Personnel @LDC:

Lisa Ardoin (ULB), Marie Bouchet (CNRS), Ailsa Chung (CNRS), Danilo Collino (ENEA, Camp Leader), Inès Gay (IPEV), Matthias Hüther (AWI, Chief Driller), Manuela Krebs (AWI), Gunther Lawer (AWI), Johannes Lemburg (AWI), Martin Leonhardt (AWI), Michele Scalet (ENEA), Barbara Seth (UNIBE), Lison Soussaint-jean (UNIBE), Julien Westhoff (UCPH, Chief Scientist), Frank Wilhelms (AWI, PI in the field)

Personnel @DMC:

Federico Scoto (CNR)

Weather at LDC 5 pm: sunny

Weather at DC 5 pm: temperature: -28°C, wind 5 knts

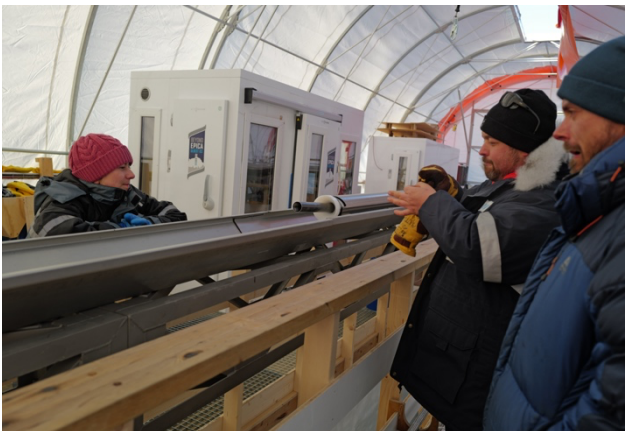


We did 3 fishing and 1 filter runs between 19:30 yesterday and 19:30 today. We were not able to catch the reamer and/or the drill head with the conical tool and bring it to the surface. While we started to manufacture a conical tool for the outer barrel of the rock drill, we did one filter run that went fast from top to the bottom of the hole.

Throughout the day, we sampled the 50m trench and packed all the samples. They are now on their way to Europe with the French traverse and then the research vessel l'Astrolabe.

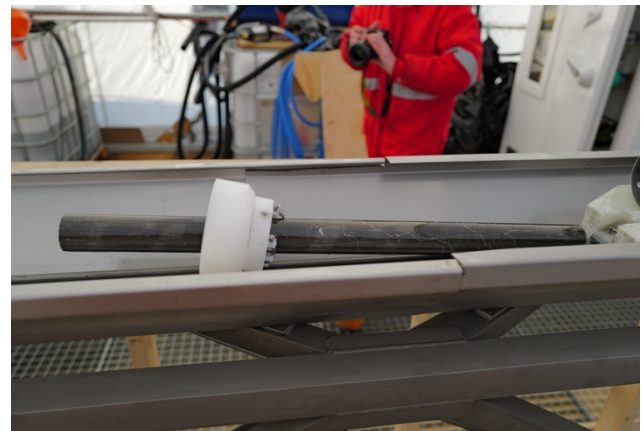
After dinner Federico Scoto was picked-up with the Arctic truck and we used the opportunity to receive strong magnets from Concordia station. Jay Johnson visited camp and we had the opportunity to discuss rock drill matters.

The PICARROs have been packed and science activities ceased on site.



The conical fishing tool with core catchers, how it came back to the surface with the grabbed core barrel.

Credit: F. Wilhelms ©PNRA/IPEV



The detached fishing tool, with visible arrangement of the core catchers. Credit: F. Wilhelms ©PNRA/IPEV





The detached fishing tool, with visible arrangement of the core catchers. Credit: G. Lawer ©PNRA/IPEV



Sampling the 50m trench in 2 teams of 3 people. Credit: J. Westhoff ©PNRA/IPEV



The 50m trench team; from right to left: Manuela, Ines, Michele, Marie, Lisa, Ailsa, Federico, and Julien. Credit: J. Westhoff ©PNRA/IPEV



The samples are packed and ready to go. Credit: J. Westhoff ©PNRA/IPEV



The last dinner at Little Dome C with all the group. Credit: J. Westhoff ©PNRA/IPEV

End of day statistics at 19:30

- Driller's depth: 2804.69 m;
- we did 3 fishing runs and 1 filter run between 19:30 yesterday and 19h30 today. The outcome of these runs was: fished the outer barrel with the conical tool and core catchers; unsuccessfully tried



to catch the drill head and/or the outer reamer with the conical tool and core catchers; tried another time, had a pull of approx. 850 daN, not sure if grabbed something, but nothing fished; one filter run that went fast from top to bottom;

- Logger's depth: 2799.83 m (preliminary);
- Current processing depth: 2795 m; daily total: 0 m; season total: 1185 m.

FW, JW, MH, 14.01.2025

