

Little Dome C

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

Situation Report 46, 11. January 2024

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), Fortunat Joos (UNIB), Michaela Mühl (UNIB) and Inès Gay (IPEV)

Weather at LDC 1 pm: sunny; temp -18.1° C and wind speed: 1.5 m/s



After re-anchoring the drill on the cable tonight we got back to drilling. We had some problems to set up the antitorque blades properly. Additionally, the top valve got blocked which in turn broke the shear pin of the motor. After replacing the pin, machining the valve, and changing the seals, we have finally been able to make a normal run in the late afternoon.

Processing is going well and another 34m have been analyzed and made ready for shipment to Europe.

Some of us have visited our Australian neighbors for coffee and cookies.

What we did today at LDC:

- Repaired the drill and restarted the drilling;
- Processed 34 ice cores;
- Visited Australian camp



Figure 1: repairing the top valve : photo : O. Alemany





Visit to the Australian camp : photo: Australian Antarctic Division

End of day statistics at 19h30

Driller's depth: 1631.32 m. we made 4 drilling runs but only one was successful between yesterday 19h30 and 19h30 today. The length of the cores was: 0, 0, 0 and 4.45 (driller length), for a total of 4.45 meters.

Logger's depth: 1627.43 m

Current processing depth: 1611m; daily total: 34m, season total: 1287m.

OA, MH, JW, and SP, 11.01.2024

