

Little Dome C

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

Situation Report #33, 3. January 2022

Personnel @LDC:

Saverio Panichi (ENEA, Camp Leader), Carlo Barbante (ISP-CNR, PI), Olivier Alemany (IGE), Romain Duphil (IGE), Matthias Hüther (AWI), Calogero Monaco (ENEA), Philippe Possenti (IGE), Michele Scalet (ENEA), Jakob Schwander (unibe), Thomas Stocker (unibe), Remo Walther (unibe)

Weather at LDC: sunny, low wind – pleasant day.

Meteo at DC 6 pm: T = -34°C, Wind = 5 knt, Wind Chill T = -43°C



In the BEOIC drilling tent work continued on the drilling tower and the connection to the control panel in the driller's cabin. Also, the full tilting function was tested. Matthias has terminated the drilling cable and connected it mechanically and electrically. This is a highly complicated task that requires skill and experience. The coupling to the drill must support a tension equivalent to 3.5 tons. Olivier, Romain and Philippe have worked on the casing closure down in the cold trench.



BEOIC drilling tent with the drill tower in upright position (drilling position).

Photo: C. Barbante (Leica SL2, 29 mm, f 22, 1/125 s, ISO-100).



At RADIX, we have drilled without anti-torque and swivel joint to the hydraulic tube. This “trick” allowed us to drill a clean hole of 4 meters. The torque of the drill was taken up by the torsion of the entire 255 meters of hydraulic tube. In this clean hole segment, drilling continued for a few meters. However, difficulties with the anti-torque still persist. These will be addressed tomorrow.

Radix drilling depth: 263.0 m



Ice chips freshly drilled by RADIX from a depth of 260 m. Photo: T. Stocker.

TS & CB, 3.1.2022

