

Little Dome C

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

Situation Report #24, 25. December 2021

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)

Personnel @DC:

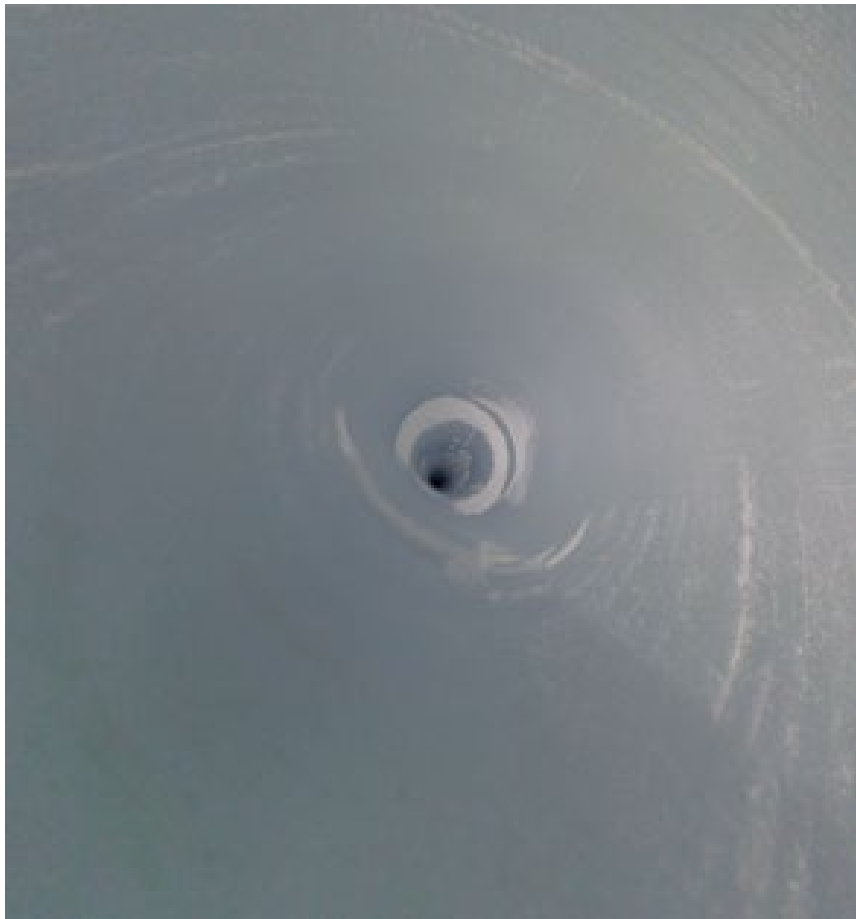
Gregory Teste (IGE),

Weather at LDC: sunny, few clouds

Meteo at DC 6 pm: T = -28°C, Wind = 5 knt, Wind Chill T = -36°C



For many, 25. December was a day of well-deserved relax and recreation. But in the drilling tent the different pieces for the BEOIC drilling system were prepared for assemblage. Matthias also started the plumbing of the drilling liquid supply to the BEOIC hole.



The LDC-BEOIC bore hole at 125 m depth, just below the casing. Photo: C. Barbante.



At RADIX, the thorough cleaning of the hole paid off, since today we made good progress in drilling. In just over one hour we drilled 40 m and reached a depth of nearly 200 m. We know that the drilling hole over this length describes a gentle left-turning spiral with a projected diameter of about 2 cm. The drilling tube in the borehole therefore experiences some additional friction. While not a problem at this depth, we are now evaluating the impact of this at deeper depths and consider various possibilities how to address it. The first two Beryllium-10 samples were taken at 160 and 200 m depth. The estimated age of these samples are 3900 and 5700 years, according to the current tentative age scale.

Radix drilling depth: 199.9 m



One of our two workhorses resting over Christmas, visibly depressed. Photo: C. Barbante (Leica SL2, 24 mm, f18, 1/40, ISO-100).

TS & CB, 25.12.2021

