

Little Dome C

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

Situation Report #19, 20. December 2021

Personnel @LDC:

Saverio Panichi (ENEA, Camp Leader), Carlo Barbante (ISP-CNR, PI), Olivier Alemany (IGE), Giacomo Bonanno (ENEA), David Brunet (IPEV), 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: morning: sunny, afternoon: visibility very reduced

Meteo at DC 6 pm: T = -30°C, Wind = 10 knt, Wind Chill T = -42°C



Again a weather change at Little Dome C, with low visibility and totally covered sky in the afternoon, but unusually mild temperatures. In the drilling tent, reaming and hole cleaning continued down to a depth of 114.5 m. The drillers' cabin was constructed today from the Vissmann elements under the direction of Matthias. All but one side have windows which will permit a fine overview of the drilling operation. First work has also started around the drilling tower putting it into position.

BEOIC drilling depth at the end of the day: 128.0 m

David continued the carpenter work at the entrance of the underground ice core storage buffer. Special curtains will be installed to keep the temperature constant.

Giacomo, Michele and Calogero took down the VHS antenna which did not work properly during the last few days.



RADIX tent with some of the transport boxes for the less than 2 tons of equipment.

Photo: T. Stocker (Leica SL2-S, 16 mm, f3.5, 1/2000, ISO 100)



Today at RADIX, five pumps were connected with a maze of tubes to bring the drilling fluid (silicone oil) from the barrel to the high pressure pump, via a food-grade filter bank. Once travelled through the bore hole the drilling fluid is passed to the recycling unit where ice particles are separated from the silicone oil. We have closed some leaks and filled the hydraulic tube with drilling liquid. Also, a barrel on a special heating plate was installed, where remnant ice flurrries will be separated from the silicone oil. After separation the water will be frozen out. This should further increase the recycling rate of the drilling liquid.

Radix drilling depth: 107.6 m



One needs to remember such views (19.12.) when visibility is low, and the horizon is barely in sight (today). Photo: T. Stocker.

TS & CB, 20.12.2021

