

Little Dome C

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

Situation Report #39; Tuesday 10 January 2023

Personnel @LDC:

Saverio Panichi (ENEA, Camp Leader), Frank Wilhelms (AWI, Chief Driller), Robert Mulvaney (BAS, Chief Scientist), Romilly Harris Stuart (LSCE), Matthias Hüther (AWI), Gunther Lawer (AWI), Johannes Lemburg (AWI), Martin Leonhardt (AWI), Michele Scalet (ENEA), Julien Westhoff (NBI), Andrea de Vito (ENEA)

Personnel @DC: Giuditta Celli (ENEA), Markus Grimmer (UNIBE), Florian Krauss (UNIBE)

Weather at LDC 5 pm: cloudy, light snowfall overnight, 3 knots, 642 hPa

Meteo at DC 5 pm



A straightforward day of drilling; arrival of the Australians

With the change back to the older drill motor controller late last night, the drilling today ran smoothly, with nine runs of the drill, all of which recovered more than 3 m of ice core, making for a daily total of nearly 29 m of ice.



Martin and Robert extracting the core barrel from the main barrel of the drill. In the background, to the left, is one of the two 1000 liter containers for handling the drill fluid – we'll look more at how the fluid is handled and recovered from the drill in the next couple of days. (Photo: Gunther Lawer, Nikon Z50, 1/2500, f2.8, ISO100)



In the early evening, the Australian traverse arrived after 20 days travelling approximately 1175 km from Casey Station on the coast. The traverse vehicles, and ten-strong traverse team, have brought some of the equipment and fuel to begin setting up the Australian drilling camp for their MYIC (Million Year Ice Core) project. Their site is only 5 km from the BE-OIC drill site and can easily be seen from our camp. Early in the search for candidate drill sites, Australia contributed to an airborne radar campaign that suggested the Little Dome C region may be a possible location for an 'oldest ice core', while later over-snow radar campaigns confirmed that, and homed in on the sites now chosen by both BE-OIC and the MYIC projects.

With the French traverse still close by, and the new Australian camp only 5 km away, together with our camp, there are now 28 people working on Little Dome C.



Tractors and trailers of the Australian traverse from Casey Station on the coast arrive close to the Million Year Ice Core project drill site at Little Dome C. (Photo: Martin Leonhardt, screenshot from video, DJI drone with L2D-20c camera)

End of day statistics:

Individual runs of the drill were recorded as: 3.19, 3.26, 3.50, 3.00, 3.24, 3.02, 3.30, 3.16, 3.04 m

Drillers' depth: 646.22 m; daily total 28.81 m

Loggers' depth: 649.94 m; daily total 28.61 m

RM and FW, 13 Jan 2023

