

Little Dome C

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

Situation Report #40; Wednesday 11 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: sunny, 3 knots, 643 hPa

Meteo at DC 5 pm



More straightforward drilling; closing one of the GPS sites

Drilling continued easily with eight runs of over 3 m each time. Towards the end of the day, we made a little experimentation with two different drill heads. One had somewhat higher pitch cutters (the amount of ice cure by the drill head on each rotation of the drill head), while the other had only a single cutter rather than three (Frank calls this one his 'one-armed bandit'). In practice neither of these two drill heads performed well today, but it is always worth a little experimentation in the pursuit of performance.

Between his drill shifts, Gunther took advantage of the calm conditions to ski out to one of the GPS survey poles to recover the instrument, avoiding the need to drive in the PistenBully.



Gunther returns to camp with the GPS survey instrument. (Photo: Mulvaney, Leica, 33mm, 1/320, f8, ISO100)



End of day statistics:

Individual runs of the drill were recorded as: 3.00, 3.26, 3.16, 3.30, 3.32, 3.51, 3.01, 3.03, 0.53, 0.00 m

Drillers' depth: 671.85 m; daily total 25.63 m

Loggers' depth: 675.63 m; daily total 25.69 m

RM and FW, 13 Jan 2023

