

**Little Dome C**

**Beyond EPICA Oldest Ice Drilling Site (75.29917 °S, 122.44516 °E) – Season 2022/23**

**Situation Report #17, 19 December 2022**

**Personnel @LDC:**

Romain Duphil (IGE), Romilly Harris-Stuart (LSCE), Gunther Lawer (AWI), Matthias Hüther (AWI), Julien Westhof (UCPH), Martin Leonhardt (AWI), Frank Wilhelms (AWI), Giuditta Celli (UNIVE, ISP), Johannes Lemburg, (AWI), Rob Mulvaney (BAS), Saverio Panichi (ENEA), Michele Scalet (ENEA), Andrea Devito (ENEA)

**Personnel @DC:**

Markus Grimmer (UNIBE), Florian Krauß (UNIBE)

**Weather at LDC 5 pm:** sunny

**Meteo at DC 5 pm:** T = - °C, Wind = - knt, Wind Chill T = - °C



Quite good progress today in setting up different drill configurations. The broken drill motor has been replaced and tested. Although we do not have the system under complete control, since more software programming is needed, we made 8 good runs for more than 17 m. If all goes well we can try tomorrow to work in two shifts.

What we did today:

- undertook 8 runs with the second electronics: first strong stick slip, anti-torque to hard 0.18 m, 7 increasingly stable runs with full chip chamber and core length of 2.09, 2.34, 2.36, 2.46, 2.57, 2.48 , 2.63 m
- the electronics enables stable drilling and is powerful: main concern is to handle the power carefully and that an antitorque rotation warning is not implemented yet, the rotation speed can be set and the torque indication we read from the display of the DC power supply
- spares for the first electronics will be shipped and are expected to be in Antarctica Dec. 27th
- attached a 3D printed vacuum cable cleaner
- worked on the development unit of the second electronics
- processed ice core at DC, down to 80 m

Drillers depth: 198.42 m

DeltaD: 17.08 m

Loggers depth: 204.21 m

DeltaD: 17.24 m

Processors depth: 80 m

DeltaD: 24 m





Matthias and Frank after a long victorious fight with drill electronics.

FW & RM, 19.12.2022

