

WISSARD FIELD REPORT: 6 January 2015. Compiled by John Priscu

ACT SLW camp population: 36 total (16-ASC; 4-C525; 9-C524; 4-C523; 2-C522; 1-C521)

Weather @ 1900h local: Overcast; Wind ~20 kts; Temp ~22 F

General: The science team has been busy preparing winches and borehole equipment while waiting for the remaining supplies and science personnel to arrive. Unfortunately, the flight that was to arrive today turned around and returned to McMurdo because of weather. We heard the aircraft overhead but could not see it. We are hopeful that the flight will arrive tomorrow. Everyone in camp is excited to get the boreholes open and for science ops to begin—we are ready to go.

If our flight from McMurdo does not arrive tomorrow, we will begin to modify our borehole plans to take samples and make measurements of the subglacial environment with the tools and personnel at ACT. We have 11 scientists at ACT and will work together on round-the-clock sampling.

3% hydrogen peroxide solution has been prepared and placed in sprayers to disinfect all down borehole tools. The following borehole tools are ready to deploy:

- DOCTOR borehole camera
- CTD
- niskin samplers
- in situ filtration system
- multi-corer
- piston corer
- geothermal probe

Drilling OPS:

The drillers completed the tool-hole and keyhole last night and joined the keyhole with the main borehole, providing return water for main borehole drilling. The drill is now at 150 meters and drilling at an average rate of 15 m per hour. At this will rate we should enter the subglacial cavity at mid-day on 8 January. The biological and geochemical teams have started to collect samples from borehole water (from sampling ports as water enters the filtration system and on water leaving the heaters before being pumped down the borehole). A sample was collected when the drill was at 80 m at 1400h today and additional samples will be collected just before breakthrough (between 600 and 700 m).

The medium winch was secured to the LARS platform by the marine techs and our electrician wired power to the LARS units to drive all of the winch motors.

The UV collar was tested and is now on during drilling ops to disinfect the drilling hose as it descends.