

# ICWG Recommendation on Best Practices for Archiving Ice Cores

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The ICWG recommends that an archive of all intermediate and deep ice cores should always be kept if possible, as described below, unless exemption is explicitly stated. For shallow cores, we generally do not recommend that an archive be kept, however shallow cores collected from unique or logistically difficult sites may warrant an archive.

## Deep ice cores

For large-diameter (>4"), deep (>1500 m), resource-intensive projects (such as those using the DISC drill), a continuous archive is required, as was the case for the WAIS Divide and GISP2 ice cores. This archive should be available for nondestructive sampling for approximately a decade after completion of the project, or longer as determined by the Sample Allocation Committee. Destructive sampling should be considered on a limited, case-by-case basis, for projects with extraordinary scientific justification. For replicate cores taken in connection with such a deep core, no archive need be kept of each individual replicate core.

## Intermediate ice cores

For intermediate depth (<1500 m), 4" cores, we recommend in general that a continuous archive and a discontinuous archive of at least one 10 cm-long sample per meter of the largest cross-section piece (e.g. the "gas piece") be kept. The cost vs. benefit of keeping a continuous archive (and the size of the archive) should be weighed on a case-by-case basis for these cores, considering all the relevant factors such as the feasibility of repeat and/or replicate coring in the event that a need for more sample is subsequently discovered.

## South Pole Intermediate Ice core (2014-2016)

The intermediate depth core to be drilled at South Pole would be possible to repeat or replicate in short intervals of high scientific interest, given that flights to South Pole and logistics are established. Also, a replicate core of select sections may be possible using the intermediate drill after completion of borehole logging. For these reasons, a continuous archive of the South Pole intermediate core is not considered necessary by the ICWG. However, we would generally recommend that a discontinuous archive of 10 cm per meter of the largest cross-section piece (e.g. the "gas piece") be kept for the South Pole intermediate core.