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890’000 year old bottom ice at Dome C

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At the beginning of the 2004 drilling season at Dome C the remaining ice thickness has been determined by seismometry. We present the seismological approach for determining the bedrock depth. We find a "true" ice thickness of 3259 m. Differences between "true" and measured depth are discussed.

The ice at bedrock is at the pressure melting point of -2.3 ˚C. After the last 70 m of ice core had been retrieved, drilling was stopped a few meters above bedrock to avoid contamination of the basal water.

The electrical DC conductivity of the ice has been measured in the field with a simple instrument. This record is compared with a record estimated from stable isotopes of marine sediment cores. This correlation gives a preliminary age of 890 ka for the bottom ice at Dome C. Approaches to further constrain the age model for the Dome C core are discussed.