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# Cosmogenic He-3 and Mn-53 dating of clasts from buried ice in the Dry Valleys, Antarctica

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Old ice bodies buried underneath valley floor sediments in the Dry Valleys, Antarctica, are fascinating geomorphic features, but age, formation and climate significance remain highly controversial. We present new cosmogenic helium and manganese data of boulders both, overlying and incorporated, in the relict ice buried in Beacon Valley, Antarctica. The exposure ages of the surface boulders assign minimum ages to the formation, comparison of buried and surface boulders constrains the long-term sublimation rate as well as paleo-flow properties and thus stability of the buried ice. This study will contribute to the discussion whether the buried ice is indeed the oldest ice on earth and how useful the ice might be as a climate archive exceeding the Antarctic ice-core time scale.