

Table 2:  $^{14}\text{C}$  results determined from the particulate organic carbon (POC) fraction. All samples have a length of about 5 cm, only V50189 has a length of 10 cm. Shown are the measured POC mass and the measured  $^{13}\text{C}/^{12}\text{C}$  and  $^{14}\text{C}/^{12}\text{C}$  ratio (reported as  $\delta^{13}\text{C}$  and pmC (percent modern carbon, respectively)). The background corrected  $^{14}\text{C}$  data, pmC<sub>corr</sub>, assumes a background contribution estimated by the average of the samples V50188, V50393 and V50191 (the error is calculated by error propagation). The calibrated radiocarbon age (calculated with OxCal) gives the  $2\sigma$  - probability range.

<b>VERA Nr</b>	<b>mean depth [cm]</b>	<b>ice mass [g]</b>	<b>POC [<math>\mu\text{gC}</math>]</b>	<b><math>\delta^{13}\text{C}</math> [‰]</b>	<b>pmC [%]</b>	<b>pmC<sub>corr</sub> [%]</b>	<b>cal. age (<math>2\sigma</math>) [BP]</b>
<b>V50188</b>	210 ± 3	25	14.7 ± 0.8	-28	75.7 ± 0.8	Blank	-
<b>V50393</b>	341 ± 3	28	15.0 ± 0.8	-32	77.1 ± 1.0	Blank	-
<b>V50394</b>	396 ± 3	20	27.4 ± 0.8	-30	73.8 ± 0.8	71.1 ± 1.9	2350 - 3375
<b>V50189</b>	573 ± 5	54	59.8 ± 0.9	-27	65.5 ± 0.9	62.1 ± 1.3	3825 - 4810
<b>V50392</b>	628 ± 3	20	24.3 ± 0.8	-34	70.2 ± 1.0	61.9 ± 3.4	3260 - 5480
<b>V50190</b>	668 ± 3	23	122.0 ± 1.2	-30	112.3 ± 0.9	-	-
<b>V50191</b>	710 ± 3	26	12.2 ± 0.8	-22	76.3 ± 1.0	Blank	-