Supplementary Material

# Supplementary Data

# Supplementary Figures and Tables

Table S1 Selected chronostratigraphic data from permafrost deposits discontinuously spanning Marine Isotope Stages (MIS) 7 to MIS 1 that are exposed at the south coast of Bol’shoy Lyakhovsky Island in our GPR survey area (Figure 1). Radiocarbon (14C) ages are reported as uncalibrated ages as thousand years (ka) before present. IRSL stands for infrared-stimulated luminescence dating and 230Th/U for radioisotope disequilibria dating.

|  |  |  |  |
| --- | --- | --- | --- |
| **Age [ka]** | **Method** | **Reference** | **Profile ID** |
| **Holocene cover – MIS 1** |  |
| 0 (modern) | 14C | Zimmermann et al. (2017) | L14-02 |
| 9.6 ± 0.2  | 14C | Wetterich et al. (2014) | L7-18 |
| **Molotkov-Yedoma Ice Complex – MIS 3** |  |
| 29.4 ± 0.7 to 53.8 ± 4.8 | 14C | Wetterich et al. (2014) | L7-18 |
| 33.1 ± 0.3 to 63.7 ± 7.1 | 14C | Zimmermann et al. (2017) | L14-02 |
| **Zyryan stratum – MIS 5-4** |  |
| 57 ± 10 | IRSL | Andreev et al. (2004) | R18+50-B11 |
| 68 ± 14 | IRSL | Andreev et al. (2004) | R9+85, 880 cm |
| 77 ± 12 | IRSL | Andreev et al. (2004) | R9+85, 1020 cm |
| 77 ± 14 | IRSL | Andreev et al. (2004) | R17, 750 cm |
| **Zimov’e stratum – MIS 6** |  |
| 134 ± 22 | IRSL | Andreev et al. (2004) | R17, 500 cm |
| **Yukagir Ice Complex – MIS 7** |  |
| 189-179 (Biwa I event)  | paleomagnetic | Andreev et al. (2004) | R17+30, R17+85, R8+50 |
| 178 ± 14 | 230Th/U | Wetterich et al. (2019) | L14-10, L14-11 (L/L model) |
| 221 ± 27 | 230Th/U | Wetterich et al. (2019) | L14-10, L14-11 (TSD model) |
| 201 ± 3 | 230Th/U | Schirrmeister et al. (2002) | R8+50 |