Adjustments to the chronology of Dalton et al (2020), as depicted in Fig. 4 of the main text:

The Dalton et al. (2020) chronology for the NW Laurentide Ice Sheet reproduces the model proposed by Dyke et al. (2003) and calibrates it using the IntCal13 calibration curve (Reimer et al, 2013). In some cases, our new exposure dates are incompatible with the Dyke et al. (2003)/Dalton et al. (2020) margin retreat pattern and a revision of the ice margin retreat pattern is necessary. Instead of devising completely new ice margin isochrones, we reproduce the margin pattern of Dyke et al. (2003)/Dalton et al. (2020) and only modify the timing of each margin to match our new exposure dates. For the isochrone portions that need to be drawn anew (detailed below), we follow the available age constraints and the regional topography, aiming for glaciologically plausible ice configurations. We do not make any changes to the deglaciation of the Cordilleran Ice Sheet.

* 16.1 cal. ka margin (Figure 4a): We present no new exposure dates from the northern Mackenzie Mountains, so we retain the 16.1 cal. ka margin from Dalton et al (2020). In the central and southern Mackenzie Mountain, our new exposure dates from Katherine Creek (~15.9 ka) suggest a slightly earlier deglaciation than previous reconstructions, so we adjust the margin south of Katherine Creek (~65°N) to accommodate this. This involves shifting the ice margin position by one timeslice, so that our 16.1 cal. ka margin now matches the 15.5 cal. ka margin position of Dalton et al. (2020). This shifts the ice margin by only ~20km.
* 14.9 cal. ka margin (Figure 4b): At this time, Cap Mountain became a nunatak according to our new exposure dates (14.9 ka), indicating continued deglaciation. To reflect this earlier deglaciation around ~63°N, we make the highest portion of the Franklin Mountains ice-free and continue the eastwards retreat of the LIS margin from the southern Mackenzie Mountains. We place this margin in an intermediate position between the 14.9 and 14.2 cal. ka margins of Dalton et al. (2020). These changes are relatively minor shifts in the ice margin of approximately 10km. To the north of 65°N, we retain the 14.9 cal. ka margin of Dalton et al. (2020) as our dates cannot suggest any changes for that region.
* 14.2 cal. ka margin (Figure 4c): Our exposure dates indicate that the Franklin Mountains (63°N) are ice-free down to ~800m (14.3 ka), and at similar elevations (~900m) at ~65°N (Norman Range; 14.2 ka) while ice remained in the Mackenzie Valley (13.6 ka). Around ~65°N to ~60°N, this requires new ice sheet margins to be drawn. To reflect the ice sheet surface lowering, we redraw the ice sheet margin to reflect the style of deglaciation. This results in nunataks in the Franklin Mountains above 800m and ice sheet lobes flowing around the topography, into the lower elevation of the Mackenzie Valley. North of ~65°N, we replicate the margin of Dalton et al. (2020), as our exposure dates do not conflict with the previous reconstruction.
* 13.5 cal. ka margin (Figure 4d): The Mackenzie Valley at ~65°N was deglaciated at this time (13.6 ka), the Norman Range (14.2 ka) and the Franklin Mountains (14.3 ka) were ice-free. This is incompatible with the margin retreat pattern of Dyke et al. (2003)/Dalton et al. (2020), so we revise the entire margin for this time slice. We depict the entire Mackenzie Valley as ice-free. At around 65°N, ice is located along the eastern edge of the valley and retreating to the east. This results in an ice margin to the north of 65°N which is constrained to the Great Bear Basin, with the ice margin drawn based on the local topography at elevations we know should be ice-free. South of 65°N, an earlier deglaciation is required to accommodate the available ages. Therefore, we shift the margin by ~100km from the 13.5 cal. ka margin of Dalton et al. (2020).