













Figure DR1. Snapshots of the history of Lake Agassiz showing the extent of the lake (black area) at various times; maps here that were not included in the printed paper are E1-E2, F1-F2, H1-H2, K1-K2, L1-L2, and M1-M2. Each of the map pairs (A1-A2 to O1-O2) show the transgressive maximums (which are based on mapped beaches) and the subsequent post-outburst minimums; each minimum is followed by a new transgressive phase (south of the outlet) caused by differential isostatic rebound. The last three lake stages (P, Q, and R) are depicted only by transgressive maximums. Values given below for lake level decline are from Teller et al. (2002) and Leverington and Teller (2003) and relate to change in water level estimated in the outlet area at that time. Arrows show routing of outburst and baseline overflow at time of each lake stage. See comments in paper about position of ice margins, Table 1 for age of each lake stage, and Figure 5 for routing of overflow and relationship to Greenland isotopic record.

(A1) Herman beach stage (lower level) and (A2) lake following 110 m draw down.

(B1) Norcross beach stage and (B2) lake following 52 m draw down.

(C1) Tintah beach stage and (C2) lake following 30 m draw down.

(D1) Upper Campbell beach stage and (D2) lake following 30 m draw down.

(E1) Lower Campbell beach stage and (E2) lake following 11 m draw down.

(F1) McCauleyville beach stage and (F2) lake following 16 m draw down.

(G1) Blanchard beach stage and (G2) lake following 10 m draw down.

(H1) Hillsboro beach stage (H2) lake following 8 m draw down.

(I1) Emerado beach stage (I2) lake following 18 m draw down.

(J1) Ojata beach stage and (J2) lake following 20 m drawdown.

(K1) Gladstone beach stage and (K2) following 9 m draw down.

(L1) Burnside beach stage and (L2) lake following 13 m draw down.

(M1) Ossawa beach stage and (M2) lake following 15 m draw down.

(N1) Stonewall beach stage and (N2) lake following 58 m draw down.

(O1) The Pas beach stage and (O2) lake following 18 m draw down.

(P) Gimli beach stage.

(Q) Grand Rapids beach stage.

(R) Kinojévis beach stage; just before Lake Agassiz-Ojibway drained into the Tyrrell Sea.