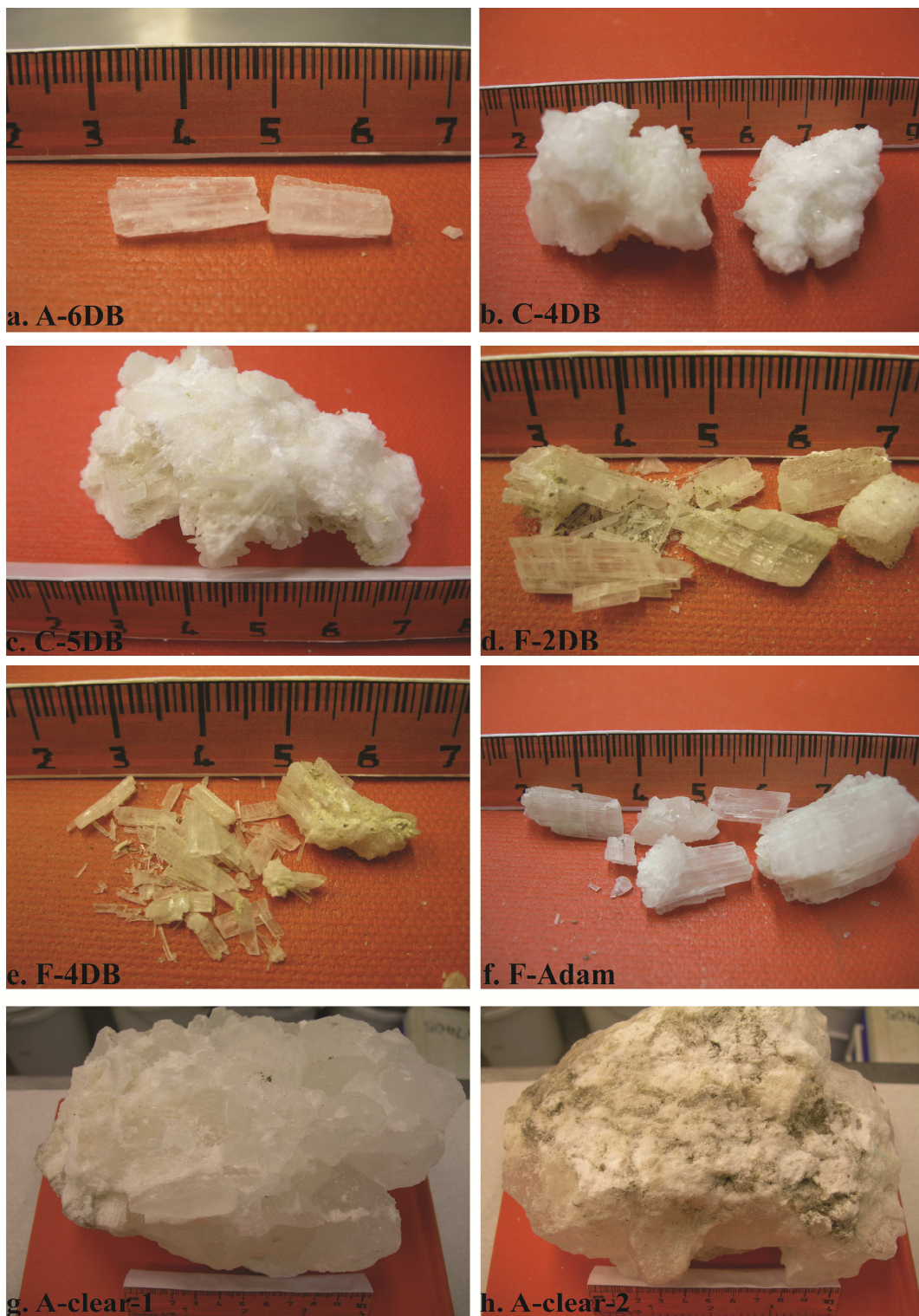


**Fig. S1.** Field sample photographs (a and b), microscopic view of B-2DB (c), and its XRD pattern (d).



**Fig. S2.** Images of (a) qilianshanite; (b) nahcolite; (c) nahcolite; (d) nahcolite; (e) nahcolite; (f) nahcolite; (g) and (h) two sides of a complex sample, whose clear interior contains mirabilite and less thenardite, chalky exterior contains thenardite and less mirabilite, and less-clear tabular crystals contain nahcolite, borax, and qilianshanite.