

ESS 431 Principles of Glaciology 6-Oct-07 Field trip to Mt Baker

We sampled recent 52-cm deep snow pack near the camp sites by Railroad Grade.
Snow probably accumulated on 4-Oct-07.

We used 100 cc density sampler.

There were no obvious stratigraphic interfaces suggestive of multiple snowfall events.

Thanks to data recorder Janet Bautista.

Sample #	Depth (cm)	Temperature (deg C)	Density (gm cm ⁻³)	Diameter (mm)	Appearance
1	3	0	0.14	0.5	bright white, wet
2	9	0	0.14	0.5	bright white, wet
3	15	0	0.14	0.5	bright white, wet
4	21	0	0.16	0.5	bright white, wet
5	27	0	0.17	0.5	bright white, wet
6	33	0	0.2	0.6	bright white, wet
7	39	0	0.36	0.7	bright white, wet
8	45	0	0.29	1.3	dark, icy, wet
9	51	0	0.45	2.25	dark, icy, wet

Questions and Interpretation

- 1 Why is the snow dark in the bottom 8 cm?
- 2 How do you explain the generally increasing trend of density increase with depth, if the snow all fell at the same density?
- 3 Why does the grain size increase with depth?
if the snow all fell with approximately the same grain size?
- 4 Was there heat flowing through the snowpack?