

SOIL 4120/5120 – PEDON CHARACTERISTICS - LAB HANDOUT

Available water holding capacity

texture	cm water / cm soil
s	0.04
organic material	0.05
ls	0.08
sl, scl, cl, sc, sic, c	0.14
sicl, l	0.17
sil, si	0.20

Saturated Hydraulic Conductivity

- **HIGH** > 3.6 cm/hr
 - O horizons (>2.5 cm)
 - s, ls textures
 - sl, l textures that are loose because of high OM content
 - fragmental soils: large volume of coarse fragments with insufficient fines.
- **MODERATE** 0.036 – 3.6 cm/hr
 - materials excluded from high and low
- **LOW** < 0.036 cm/hr
 - c, sc, sic textures with moderate (2) or weaker structure
 - sicl textures with weak (1) structure
 - fragipans
 - dense glacial till (Cd)
 - hard bedrock (R)
 - horizontally bedded soft bedrock with few vertical fractures (Cr)

Surface runoff – if well vegetated move to the next slowest class

% slope	Limiting hydraulic conductivity of the surface horizon		
	HIGH	MODERATE	LOW
closed depression	ponded	ponded	ponded
0 - <1	very slow	very slow	slow
1 - <2	very slow	slow	medium
2 - <6	slow	medium	rapid
6 - <12	medium	rapid	very rapid
≥ 12	rapid	very rapid	very rapid



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