

GSC-BH-SW-06 - Cuttings Record

Run	Depth	Description of cuttings
1	0-10'	brown, fat clay with 'trace to little' granules and pebbles. Pebbles up to 2 cm across - mixed lithology. Has a sulphurous smell. Drilling with water.
2	10-20'	gray, fat clay with trace pebbles and granules. Also gray medium sand in smaller amounts.
3	20-30'	gray, medium to very coarse sand, well graded. Sand is of mixed lithology pure quartz to chert (?) to shaly black colour. Some fines but non-plastic and non-cohesive.
4	30-40'	gray, fine to coarse sand. Mixed lithology as above. Well graded. Non-plastic. Non-cohesive.
5	40-50'	gray, fine to very coarse sand with some fines. Mixed lithology as above. Well graded. Non-plastic. Non-cohesive. Started drilling with mud.
6	50-60'	few cuttings - probably mixed sand and till. Sand cuttings as above.
7	60-70'	few cuttings - probably in till. Sand cuttings as above.
8	70-80'	gray, very fine to coarse sand. Mixed lithology as above. Well graded. Non-plastic. Non-cohesive.
9	80-90'	80-82' easier drilling, probably till without boulders. 82-90' harder to drill. Medium to coarse sand cuttings, poorly graded unless fines washed away. Non-plastic. Non-cohesive.
10	90-100'	Till. Clayey. Easier to drill. Sticky clump in the cuttings. 1 pebble.
11	100-110'	coarse sand, no gravel. Sand in cuttings to surface. Non-plastic. Non-cohesive. Rough drilling.
12	110-120'	coarse sand and fine gravel cuttings. Subrounded to rounded, largest grain size approx. 0.8 cm. Non-plastic. Non-cohesive. New batch of mud so may the mud may simply be picking up coarser cuttings.
13	120-130'	medium to coarse sand and fine gravel. Larger grain sizes may not be coming out since mud is still fairly thin. Rounded to subrounded.
14	130-140'	medium to coarse sand and fine gravel. Rounded to subrounded. Till (as below) in bottom of run. Driller said drilling smoothed right out.
15	140-150'	Till. Mud started coming up much darker. Sandy cuttings to surface but they are more liquid and drain more slowly.
16	150-160'	Till. Mud colour variable: light, then dark, then light again. Cuttings unchanged: mostly coarse sand with a little fine gravel that is rounded and subrounded.
17	160-170'	Till based on drilling and mud circulation (flow "clogs"). Cuttings are sand and gravel up to 1 cm diameter. Cuttings may not be representative of the unit we are drilling.
18	170-180'	Gray brown sand, fine to very coarse, well-graded, some gravel coming up at end of run. Pebbles subrounded and mixed lithology. Non-plastic, non-cohesive. Drilling like a sand. Level of mud inside the drill casing is 104 cm above ground surface. Total head may be greater since density of mud is greater than 1. Estimate of flow is less than 10 IGPM (15 cm * 2 cm * 25 cm/s = 0.75 L/s).