BOREHOLE LOG

PROJET: Iqaluit Airport
SITE: Apron I
BOREHOLE NO.: IQA_AERO_DDH_13_03
COORDINATES: X:522502.0489 Y:7069927.0278
ELEVATION: 24
START DATE: 29-04-2013
END DATE: 30-04-2013

Instrumentation
- Temperature sensor (Decagon ECT)
- Temperature sensor (YSI 44033)
- Volumetric water content, temperature and bulk electrical conductivity (Decagon 5ET)
- Volumetric water content (Decagon EC-5)
- Pressure sensor

Instrumentation
- PVC casing

Sampling method
- Excavation
- Diamond core
- Slit spoon
- Destructive

Recovery
- Recovered
- No recovery

Sample state
- *Ud-F* Undisturbed and frozen
- *Ud-Uf* Undisturbed and unfrozen
- *D-F* Disturbed and frozen
- *D-Uf* Disturbed and unfrozen

C/H/N
- *w* Water content (%)
- *p* Bulk density (g/cm-3)
- C Carbon (%)
- H Hydrogen (%)
- N Nitrogen (%)

Depth (m)	Instrumentation	Stratigraphy	Image	CT (HU) 3071 / -1024	TI profile (HU) -1024 / 1024 / 3071	Soil description	Sampling method	Recovery	Sample state	Sample name	Volume (%) Soil / Ice / Air (0 – 100)	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N *w*	C/H/N *p*	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
0.00						Asphalt (0,27 m)																										
						Sand and gravel (embankment). Pore ice.																										
-1.00									D-Uf	13_103_168																						
-2.00									Ud-F	13_03_175-237																						
						Grey silty sand. Pore ice.																										
						Brown coarse sand and gravel. Pore ice.																										

Version 1.4 E. L'Hérault and A-S. Carbonneau (2015-06)

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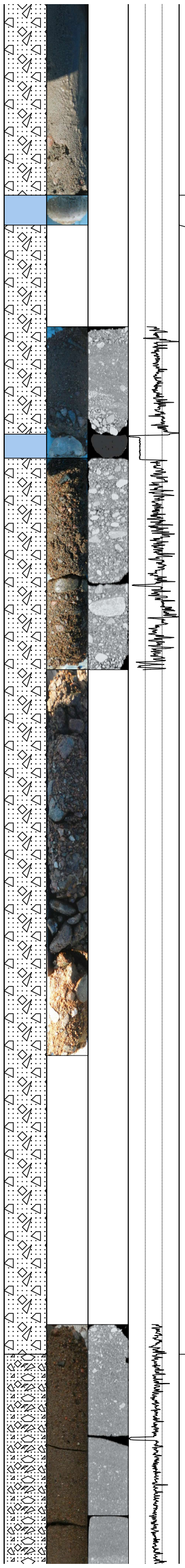
Stratigraphic information | Sampling characteristic | Laboratory analysis



Depth (m)	Soil description	Sampling method	Recovery	Sample state	Sample name	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N w	C/H/N ρ	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
				Ud-F	13_03_260-298																					
	White granular ice (compacted snow?).																									
-3.00	Brown coarse sand and gravel without fine matrix. Pore ice. Thick ice lenses between 3,33 and 3,37 m.																									
				Ud-F	13_03_315-337	20.2		21.8	77.7	0.5					SP											
				Ud-F	13_03_337-351	13.3		32.0	67.4	0.6					SP			0.57								
				Ud-F	13_03_358-360	20.8																				
					13_03_360-370	11.7		42.2	57.0	0.8					SP											
					13_03_370-372	10.2																				
				Ud-F	13_03_372-384	6.9																				
					13_03_384-398	12.9		45.6	53.5	0.9					SP											
-4.00				Ud-F	13_03_398-410	16.6		79.8	20.0	0.2					GP											
					13_03_420-435	8.4																				
					13_03_474-482	12.9																				
	Coarse sand interbedded with sand and gravel. Pore ice.			Ud-F	13_03_482-493	23.0																				
					13_03_493-502	18.2																				
-5.00					13_03_502-514	23.4		0.3	99.2	0.4					SP											
					13_03_515-525	21.8																				

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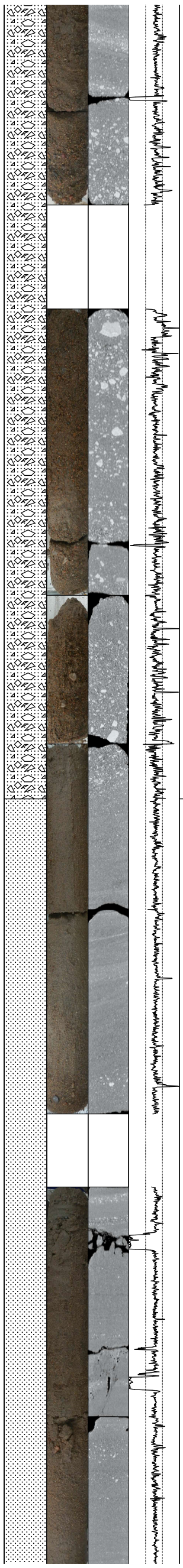

Depth (m)	Stratigraphy	Soil description	Sampling method	Recovery	Sample state	Sample name	Water content (%)	G	S	M-C	wl	wp	Ip	IL	USCS	Consol. kPa 25	50	100	C/H/N w	p	C	H	N	Radiocarbon dates 14C (BP)	±	Material
		Beige fine to coarse sand interbedded with fine gravel. Pore ice.			Ud-F	13_03_525-532	19.0																			
						13_03_532-539	24.9																			
						13_03_539-557	19.5																			
-6.00					Ud-F	13_03_612-621	20.7																			
					Ud-F	13_03_621-647	19.0	9.2	86.4	4.4					SP											
					Ud-F	13_03_647-659	18.1																			
						13_03_659-668	22.2																			
						13_03_668-677	25.8																			
					Ud-F	13_03_677-689	24.5																			
-7.00						13_03_689-699	25.2	0.0	99.4	0.7					SP											
						13_03_699-709	23.9																			
					Ud-F	13_03_720-730	23.9																			
						13_03_730-743	25.3																			
						13_03_743-750	25.0																			
						13_03_750-760	25.6	0.1	90.0	9.8	21.5				SP-SM											
					Ud-F	13_03_760-770	21.8																			
						13_03_770-778	26.7																			
						13_03_778-785	27.1																			

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-8.00									Ud-F	13_03_785-803		26.2		0.0	97.5	2.5					SP											
									Ud-F	13_03_803-848		27.0		0.0	97.0	3.0					SP											

End of borehole at 8,48 m.

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