The City of Winnipeg Tender No. 1173-2019 Template Version: eC120190901 - C BCIvil

## **APPENDIX A - TEST HOLE LOGS**

K GR	<b>GS</b> OUP		SUMMARY LOG REFERENCE NO. HOLE NO. TH18-01								SHEET 1 of 1							
CLIENT PROJECT SITE		2018 C	OF WINNIPEG - WATER AND WASTE DEPARTMENTED DUTFALL RENEWAL AND REHABILITATION	NT				JOB NO. GROUND E TOP OF CAS	SING I	ELEV	23	7-01 32.5		<u></u>				
		Lodge Outfall ~Xm East of the Outfall on Lower Bank						WATER ELE			2/	/26/2	2018	3				
DRILLING METHOD		125 mm ø Solid Stem Auger, Mobile B59						UTM (m)	N 5,526,615 E 623,925									
ELEVATION (m)	(tt) (tt)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	<b>DEPTH</b> (m)	SAMPLE TYPE NUMBER	UMBER ECOVERY %		ows/0.15 m ▲ /NAMIC CONE		PL MC				*			
	(m) (ft)	\ <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	TOPSOIL - Black, frozen, rootlets.			δŽ	<u> </u>	20 40	60	2				80	_			
232.4 - 232 - 233.0 _	1 5		SILTY CLAY FILL - Dark brown to black, frozen, loose/crumbly, intermediate to high plasticity, trace fine to coarse grained sand, trace rootlets/roots.  - Damp, stiff below 0.6 m.		0.3	∏so <sup>-</sup>	1					1::1:	:1::1					
- 230	2-1		SILTY CLAY - Brown, damp, stiff, high plasticity, trace silt inclusion.  - Dark brown, moist, soft below 2.4 m.			\$02 \$303				1		.i::1: 1::1:	:1::1 :1::1					
229.5	3 = 10		CHITTHI. Top maint loose some fine to copy agained and	88		13			<u>:1:::::</u>		<u> </u>		: ::  : ::	:: <u> </u> ::				
- 229	4		SILT TILL - Tan, moist, loose, some fine to coarse grained sand, trace fine grained gravel, occasional coarse grained gravel.	2222223	4.3	<b>∏</b> \$0₄	1											
<ul><li>228</li><li>227</li></ul>	5 — 15		- Compact, with fine to coarse grained sand, trace to some fine grained gravel below 4.6 m.  - Grey, and fine to coarse grained sand, trace fine grained gravel below	888888888888888888888888888888888888888	4.5	<b>∏</b> \$0\$	5											
- 226	6 — 20		5.5 m.			S07	100 100	▲ 18 ▲ 13: 1: ▲ 14:	. ]									
	7 = 1					]]S08	3											
- 225	25			р	75	S09	100		50::::		===	:: :						
224.5	8		AUGER REFUSAL AT 8 m	1 K800 K8	8.0				SPT; te	mina	ed w	/th 89	<u>}</u> mф	ı left	in:			
- 224	<u> </u>		Notes:  1. Test hole remained open to 7.8 m after drilling.									:: :  :: :  :: :						
	9 = 30		Installed pneumatic piezometers at 4.4 m (07760) and 7.5 m (037758) below grade.     Installed a slope inclinometer to 7.8 m below grade with a stick-up of															
- 223	10 —		1.02 m.										:i::i :1::1					
- 222	- 35																	
									: i: : : : : : : : : : : : : : : : : :									
_ 221												-   -						
SAM	PLE TYP	E []	Auger Grab Split Spoon	•				• L L							٦			
	TRACTO Paddock	R	INSPECTOR ling Ltd. K. HAMILTON			PPRO DRAF		D		DATE 4/5/18					$\exists$			

K	<b>GS</b> ROUP	SUMMARY LOG REFERENCE NO.					HOLE NO. <b>TH18-02</b>						SHEET 1 of 1					
PRO SITI LOC DRII	CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT 2018 OUTFALL RENEWAL AND REHABILITATION  SITE Lodge Outfall  LOCATION ~Xm East of Outfall on Upper Bank  DRILLING METHOD  125 mm ø Solid Stem Auger, Mobile B59							TOP (	UND OF CA ER EI E DRI	ELEV. ASING LEV. LLED	ı	8 5	)					
ELEVATION (m)	ОЕРТН ДОР	GRAPHICS	<del>-</del>	PIEZ. LOG	DEPTH (m)	YPE		SPT (N) blows/0.15 m A			E 623,93' Cu POCKET PEI Cu TORVANE (k			EN	N (kPa) ★ (Pa) ◆			
ELEVAT	ELEVAT		DESCRIPTION AND CLASSIFICATION	PIEZ.	DEPT	SAMPLET	NUMBER RECOVERY %	DYNAMIC CONE (N) blows/ft $\triangle$			1	₽ <b>L</b> 1 20	<b>%</b>		LL 50 80			
- 235 234.8 _ - 2 <del>334</del> 9	1-1	www	TOPSOIL - Black, frozen, rootlets.  SILT - Tan, dry to damp, loose to compact.		0.3	₽\$s						1::1: 1::1: 1::1: 1::1: 1::1:	11::1 :1::1 :1::1 :1::1	:   : : : : : : : : : : : : : : : : : :				
	2-1		SILTY CLAY - Dark brown, dry to damp, stiff, high plasticity, some fine to coarse grained sand.			H <sup>s</sup>	02					:: ;  :: ;  :: ;  :: ;						
- 232	3 -10		SILT - Tan, dry to damp, loose to compact.  SILTY CLAY - Dark brown, dry to damp, stiff, high plasticity, some fine to coarse grained sand.  - Damp, trace fine to coarse grained sand, trace silt inclusions below 3 m.			4										-1		
- 231	4 - 15		- Damp to moist, firm below 4.6 m.	88 88 88 88 88 88 88 88 88 88 88 88 88	3.9 4.0	₽s	03						: ::	<b>*</b> :				
- 230 229.6 _	5		- Moist, dark grey below 4.9 m.  SILT TILL - Tan, damp to moist, loose, some fine to coarse grained sand, trace fine grained gravel, occasional coarse grained gravel.	•								1						
- 229 - 228	7					Xs FI	06100	▲ 3. I										
- 227	8 — 25		- Compact, with fine to coarse grained sand, trace to some fine grained gravel below 4.6 m.  - Grey, and fine to coarse grained sand, trace fine grained gravel below 5.5 m.		8.5 8.6	X II	67	<b>♣</b> 7.6.1.										
- 226	9		- Redish brown, some fine to coarse grained sand below 6.1 m, difficult drilling.	t ************************************	9.4	X	33	<b>4</b> .9		<b>å</b> - 1210								
225.2 _ - 225 - 224	10 - 35	1 11 11 11.	Notes:  1. Test hole remained open to 7.8 m after drilling.  2. Installed pneumatic piezometers at 4 m (07761) and 8.5 m (037757) below grade.		9.9		100			<b>Å</b> :50: <b>*SPT te</b> ∴ 1	mine		afterl		.   .   .   .   .   .   .   .			
SAM	PLE TYPI		Installed a slope inclinometer to 9.4 m below grade with a stick up of 1.06 m.  Auger Grab Split Spoon						::::::::::::::::::::::::::::::::::::::			::  :   ::  :   ::  :	-   -   -					
	TRACTOI Paddock		INSPECTOR Ling Ltd. K. HAMILTON			APPR DRA	OVE FT	D			DAT 4/5/1							