

APPENDIX A - TESTHOLE LOGS

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Burrows Avenue Outfall
LOCATION Toe of Upper Slope
DRILLING METHOD 200 mm ø Hollow Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 226.18 m
TOP OF PVC ELEV. 227.20 m
WATER ELEV.
DATE DRILLED 10/12/2010
UTM (m) N 5,530,717
 E 634,372

ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲	DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★			Cu TORVANE (kPa) ◆		
								20 40 60	20 40 60	PL MC LL	PL MC LL				
226			CLAYEY SILT - Brown, damp, firm, low plasticity, trace rootlets, trace organic material.			S1	8								
225.1	1					S2	35								
225			SILTY CLAY - Brown, damp, firm to stiff, intermediate plasticity, trace oxidation, trace rootlets, trace fine grained gravel, trace fine to coarse grained sand. - Piece of wood at 1.57 m. - Firm, decreased fine grained gravel, decreased coarse grained sand below 1.57 m.			S3	65								
	5					S4	40								
224			- Moist to wet, trace to some wood fibres below 2.03 m. - Grain Size Distribution: Gravel (0.0%), Sand (5.8%), Silt (46.0%), Clay (48.2%) at 2.03 m.			S5	70								
	2		- Grey to black below 2.69 m.			S6	100								
223			- Damp, trace silt seams (1 mm thick) below 3.05 m.			S7	40								
	10		- Firm, trace silt nodules (2-4 mm diameter) below 3.56 m.			S8	100								
222						S9	100								
	4		- Moist, increased silt content below 4.42 m. - No recovery from 4.57 m to 5.08 m.			S10	100								
221			- Trace gypsum nodules (3-10 mm diameter) at 5.08 m.			S11	100								
	15					S12	100								
220.1			SILTY CLAY - Grey, moist, soft to firm, high plasticity, some silt, trace sand, trace gypsum nodules. - Grain Size Distribution: Gravel (0.0%), Sand (0.1%), Silt (10.7%), Clay (89.2%) at 6.10 m. - Gypsum seam (1 mm thick) at 6.25 m. - Decreased gypsum content below 6.26 m. - Possible slickenside at 6.42 m.		6.3	S13	100								
220					6.5										

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SAMPLE TYPE Split Barrel
CONTRACTOR Paddock Drilling Ltd. **INSPECTOR** C. FRIESEN **APPROVED** **DATE** 11/30/10

ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲	DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★	Cu TORVANE (kPa) ◆
								20 40 60	20 40 60	20 40 60 80	20 40 60 80
219	25		- Trace gypsum nodules (2-10 mm diameter), trace silt nodules (2-5 mm diameter) at 6.60 m. - Decreased gypsum content below 7.11 m.								
218	8		- Soft below 8.13 m.								
217	9		- Increased silt nodules (1-3 mm diameter), trace medium grained sand between 8.63 m and 9.14 m. - Decreased medium grained sand below 9.14 m.								
216.2	10		SILT TILL - Light brown, moist, firm, no plasticity to low plasticity, trace fine grained gravel, trace fine to coarse grained sand. - Moist to wet below 10.36 m.		9.5 9.7	S14 S15 S16 S17 S18 S19	100 100 100 100 100 100				
216	35		- Increased moisture content, some fine to coarse grained sand below 11.18 m. - 50 mm gravel at 11.63 m. - 50 mm of medium grained sand at 11.68 m, dense silt till below 11.73 m.			S20 S21 S22 S23	40 70 65 50				
214.3	12		AUGER REFUSAL AT 11.89 m.		11.9	S24	75				
214	40		Notes: 1. Water level at 4.57 m below grade at end of drilling. 2. Water level at 2.29 m below grade 20 minutes after end of drilling. 3. Installed PN 033747 to a depth of 9.60 m below grade. 4. Installed PN 033749 to a depth of 6.40 m below grade. 5. Installed slope inclinometer to a depth of 11.89 m with a stickup of 1.02 m. 6. Pushed plug from 4.57 m to 5.08 m due to small sample diameters from 2.03 m to 4.57 m. 7. Backfilled test hole with bentonite slurry mixture from 11.89 m to 1.52 m and bentonite chips from 1.52 m to grade.								
213	13										
212	14										
211	15										

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SAMPLE TYPE  Split Barrel

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Burrows Avenue Outfall
LOCATION Toe of Upper Slope
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 226.23 m
TOP OF PVC ELEV. 227.25 m
WATER ELEV.
DATE DRILLED 10/12/2010
UTM (m) N 5,530,716
 E 634,373

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲	DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★		Cu TORVANE (kPa) ◆	
	(m)	(ft)									PL	MC	LL	%
226				CLAYEY SILT - Brown, damp, firm, low plasticity, trace rootlets, trace organic material.										
225.2	1			SILTY CLAY - Brown, damp, firm to stiff, intermediate plasticity, trace oxidation, trace rootlets, trace fine grained gravel, trace fine to coarse grained sand.										
225		5		- Piece of wood at 1.57 m. - Firm, decreased fine grained gravel, decreased coarse grained sand below 1.57 m.										
224		2		- Moist to wet, trace to some wood fibres below 2.03 m.										
				- Grey to black below 2.69 m.										
223		3		- Damp, trace silt seams (1 mm thick) below 3.05 m.		3.0								
				- Firm, trace silt nodules (2-4 mm diameter) below 3.56 m.										
222		4		- Moist, increased silt content below 4.42 m. - No recovery from 4.57 m to 5.08 m.										
				- Trace gypsum nodules (3-10 mm diameter) at 5.08 m.										
221		5		- Increased gypsum nodules from 5.77 m to 5.89 m.										
220.1		6		SILTY CLAY - Grey, moist, soft to firm, high plasticity, some silt, trace sand, trace gypsum nodules.										
220		20		- Gypsum seam (1 mm thick) at 6.25 m. - Decreased gypsum content below 6.26 m. - Possible slickenside at 6.42 m. - Trace gypsum nodules (2-10 mm diameter), trace silt nodules (2-5 mm diameter) at 6.60 m.										

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SAMPLE TYPE

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED
DEA

DATE
11/30/10

ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE	NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆	
										20 40 60 80	20 40 60 80
219	25		- Decreased gypsum content below 7.11 m.								
218	8		- Soft below 8.13 m.								
217	9		- Increased silt nodules (1-3 mm diameter), trace medium grained sand between 8.63 m and 9.14 m.								
217	30		- Decreased medium grained sand below 9.14 m.								
216.3	10		SILT TILL - Light brown, moist, firm, no plasticity to low plasticity, trace fine grained gravel, trace fine to coarse grained sand.		9.8						
216	35		- Moist to wet below 10.36 m.								
215	11		- Increased moisture content, some fine to coarse grained sand below 11.18 m.		11.3						
215	11		- 50 mm gravel at 11.63 m.		11.9						
215	12		- 50 mm of medium grained sand at 11.68 m, dense silt till below 11.73 m.		12.2						
214.0	40		AUGER REFUSAL AT 12.19 m.								
214	40		Notes: 1. Stratigraphy has been projected approximately 1.57 m south from TH10-01. 2. Installed Casagrande standpipe piezometer to a depth of 12.19 m with a stickup of 1.02 m. 3. Backfilled test hole with silica sand from 12.19 m to 11.28 m, bentonite chips from 11.28 m to 9.75 m, cuttings from 9.75 m to 3.05 m and bentonite chips from 3.05 m to grade.								
213	13										
213	45										
212	14										
212	15										
211	50										

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SAMPLE TYPE

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN


APPROVED
DEA

DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Burrows Avenue Outfall
LOCATION Lower Bank
DRILLING METHOD 200 mm ø Hollow Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 225.71 m
TOP OF PVC ELEV. 226.73 m
WATER ELEV.
DATE DRILLED 10/13/2010
UTM (m) N 5,530,719
 E 634,388

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆		
	(m)	(ft)						PL	MC	LL
225.2				CLAYEY SILT - Brown, damp to moist, firm, low plasticity, trace rootlets, trace organic material.	S1	60				
225	1			SILTY CLAY - Brown, moist, stiff, intermediate plasticity, trace fine grained gravel, trace medium to coarse grained sand, trace silt nodules (2 to 5 mm diameter) below 0.51 m. - Firm, trace fine grained sand below 1.01 m.	S2	75				
	5			- Stiff, high plasticity, trace silt nodules (1-4 mm diameter), trace fine grained gravel, trace fine to coarse grained sand, trace rootlets at 1.57 m.	S3	50				
224	2			- Firm, decreased sand and gravel below 2.03 m.	S4	85				
				- 60 mm piece of wood at 2.46 m. - No recovery from 2.54 m to 3.05 m.	S5	72.5				
223	3	10		- 25 mm organic layer at 3.05 m.	S6	100				
222.1				SILTY CLAY - Grey, moist, firm to soft, high plasticity, with silt, trace sand, trace silt nodules. - Trace fine grained sand at 3.56 m. - Grain Size Distribution: Gravel (0.0%), Sand (7.6%), Silt (26.0%), Clay (66.4%) at 3.56 m.	S7	75				
222	4			- Soft, trace silt nodules (1-10 mm diameter) below 4.57 m.	S8	100				
	15			- Increasing moisture content with depth, trace fine grained gravel, trace coarse grained sand below 5.64 m.	S9	100				
221	5			- Decreased gravel and sand below 6.10 m.	S10	100				
220	6	20			S11	100				
					S12	100				
219					S13	100				

SAMPLE TYPE  Split Barrel

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

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ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE	NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆		
								PL	MC	LL
218	8		- Reduced silt nodules below 7.87 m.							
217	9		- Grain Size Distribution: Gravel (0.0%), Sand (0.5%), Silt (19.7%), Clay (79.8%) at 8.64 m. - No silt nodules below 8.74 m.							
216.1	30		- Trace silt nodules (2-5 mm diameter) below 9.40 m.							
216			SAND - Brown, wet, loose, fine to medium grained, trace silt, trace coarse grained sand.							
215.7	10		SILT TILL - Light grey, wet, soft, non-plastic, trace fine to coarse grained sand, trace fine grained gravel.							
215.2			AUGER REFUSAL AT 10.52 m.							
215	35		Notes: 1. Installed slope inclinometer to a depth of 10.52 m with a stickup of 1.03 m. 2. Backfilled test hole with bentonite slurry mixture from 10.52 m to 1.52 m and bentonite chips from 1.52 m to grade.							
214	40									
213	45									
212	50									
211										

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SAMPLE TYPE Split Barrel

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Polson Avenue Outfall
LOCATION Upper Bank - North of Sinkhole
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 229.84 m
TOP OF PVC ELEV. 230.79 m
WATER ELEV.
DATE DRILLED 10/13/2010
UTM (m) N 5,531,721
 E 635,371

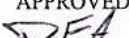
ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆	
	(m)	(ft)								PL	MC
229	1	5		SILTY CLAY - Brown, damp to moist, stiff, intermediate plasticity, trace rootlets, trace silt nodules (1-5 mm diameter). - No rootlets below 1.52 m. - Trace fine to medium grained sand below 1.83 m.		1.5					
227.2	3	10		SANDY SILT - Brown, damp, stiff, low to non plastic, some to with fine to medium grained sand.							
226.0	4	15		CLAYEY SILT - Brown, moist, soft to firm, intermediate to high plasticity, trace fine to medium grained sand, trace silt nodules (1-3 mm diameter).							
225.3	5	20		SILTY SAND - Brown, moist, soft, low to intermediate plasticity, fine grained, with silt, with clay. - Water infiltration noted at 4.57 m. - Some to with fine to coarse grained sand below 5.49 m. - Low to non plastic below 6.10 m.							

G:\PROJECTS\2010\10-0107-18\DESIGN\GEO\LOGS\2011 OUTFALL REPAIR PROGRAM.GPJ

SAMPLE TYPE  Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★		Cu TORVANE (kPa) ◆	
									20	40	60	80
222	8		- Grey, intermediate plasticity below 8.53 m. - Grain Size Distribution: Gravel (0.0%), Sand (38.4%), Silt (34.4%), Clay (27.2%) at 8.53 m.			S9						
221	9					S10						
220.1	10		CLAYEY SILT - Grey, moist, soft, intermediate to high plasticity, trace fine grained sand.		9.8							
220	10					S11						
219	11											
218.3	12		SILT TILL - Grey, wet, soft, trace to some fine to coarse grained sand, trace to some fine grained gravel.			S12						
218	12		- Moist, trace fine to coarse grained sand, trace fine grained gravel below 12.19 m.									
217	13											
216.3	13.3				13.3	S13						
216.3	13.6		AUGER REFUSAL AT 13.59 m.		13.6							
216	14		Notes: 1. Installed Casagrande standpipe piezometer to a depth of 13.41 m with a stickup of 0.95 m. 2. Test hole squeezing at 11.13 m below grade. 3. Backfilled test hole with silica sand from 13.59 m to 10.52 m, bentonite chips from 10.52 m to 9.75 m, cuttings from 9.75 m to 1.52 m, and bentonite chips from 1.52 m to grade. 4. Water infiltration noted at 4.57 m below grade while drilling.									
215	15											
215	50											

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SAMPLE TYPE  Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Cloutier Drive Outfall
LOCATION Southwest of Sinkhole
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 226.86 m
TOP OF PVC ELEV.
WATER ELEV.
DATE DRILLED 10/15/2010
UTM (m) N 5,515,356
 E 632,938

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆		
	(m)	(ft)						PL	MC	LL
226	1			SILTY CLAY - Brown to grey, moist, stiff, high plasticity, trace medium to coarse grained sand, trace rootlets.	S1					
225	5			- No sand, no rootlets below 1.52 m.	S2					
224.7	2			CLAYEY SILT - Brown, moist, soft, low to intermediate plasticity, trace silt nodules (2-5 mm diameter).	S3					
224.4				SILTY CLAY - Brown, moist, stiff, intermediate to high plasticity, trace silt nodules (2-5 mm diameter).	S4					
224	3	10		- Firm below 3.35 m.	S5					
223	4			- Grey below 3.66 m.	S6					
222.3	15			END OF TEST HOLE AT 4.57 m.						
222	5			Note: 1. Backfilled test hole with auger cuttings and bentonite chips at the surface.						
221	6	20								
220										

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SAMPLE TYPE Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED

DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Cloutier Drive Outfall
LOCATION Northwest of Sinkhole
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 226.85 m
TOP OF PVC ELEV.
WATER ELEV.
DATE DRILLED 10/15/2010
UTM (m) N 5,515,365
 E 632,938

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆	
	(m)	(ft)						PL	MC
226.2				SILTY CLAY - Brown, moist, firm, intermediate to high plasticity, trace medium to coarse grained sand, trace rootlets.					
226.1				SAND - Brown, moist, loose, medium to coarse grained.	S1				
226				SILTY CLAY - Brown, moist, stiff, intermediate to high plasticity, trace wood pieces (4 mm diameter).					
	1			- No wood pieces below 1.52 m.	S2				
	5				S3				
225					S4				
	2			- Firm, trace silt nodules (3-10 mm diameter) below 2.44 m.					
	10				S5				
224									
	3			- Grey below 3.66 m.					
223									
	4								
222.3		15		END OF TEST HOLE AT 4.57 m.					
222				Notes: 1. Backfilled test hole with bentonite chips at the bottom and top with auger cuttings in the middle. 2. Test hole squeezing at 4.11 m below grade.					
	5								
221									
	6								
220		20							

SAMPLE TYPE  Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED



DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Cloutier Drive Outfall
LOCATION Southeast of Sinkhole
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 226.89 m
TOP OF PVC ELEV.
WATER ELEV.
DATE DRILLED 10/15/2010
UTM (m) N 5,515,354
 E 632,948

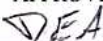
ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆	
	(m)	(ft)						PL	MC
226.1			[Cross-hatched]	SILTY CLAY FILL - Brown to grey, moist, firm, intermediate to high plasticity, trace coarse grained sand, trace fine grained gravel.	S1				
226	1		[Diagonal lines]	SILTY CLAY - Brown, moist, stiff, high plasticity, trace silt nodules (1-3 mm diameter).	S2				
225	2		[Diagonal lines]	- Trace black organics (wood fibres and organic odour), trace coarse grained sand, trace fine grained gravel from 1.83 m to 2.29 m. - Mottled grey with black, no silt nodules, trace rootlets below 2.29 m.	S3				
224	3	10	[Diagonal lines]	- Firm below 3.05 m.	S4				
223	4		[Diagonal lines]	- Trace silt nodules (2-5 mm diameter), no black colour below 3.51 m. - Brownish grey from 3.51 m to 3.96 m.	S5				
222.3	5	15	[Diagonal lines]	- Trace coarse grained sand at 3.96 m. - Grey below 3.96 m.	S6				
				END OF TEST HOLE AT 4.57 m.					
222	5			Note: 1. Backfilled test hole with auger cuttings and bentonite chips at the surface.					
221	6	20							
220									

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SAMPLE TYPE  Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED


DATE
11/30/10

CLIENT CITY OF WINNIPEG - WATER AND WASTE DEPARTMENT
PROJECT 2010 Outfall Repair Program
SITE Cloutier Drive Outfall
LOCATION Northeast of Sinkhole
DRILLING METHOD 125 mm ø Solid Stem Auger, RM 30 Track Mount

JOB NO. 10-0107-18
GROUND ELEV. 227.28 m
TOP OF PVC ELEV.
WATER ELEV.
DATE DRILLED 10/15/2010
UTM (m) N 5,515,364
 E 632,946

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ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE NUMBER	RECOVERY %	SPT (N) blows/0.15 m ▲ DYNAMIC CONE (N) blows/ft △	Cu POCKET PEN (kPa) ★ Cu TORVANE (kPa) ◆	
	(m)	(ft)						PL	MC
227				SILTY CLAY - Brown, moist, firm to stiff, intermediate to high plasticity, trace medium to coarse grained sand, trace rootlets. - Trace silt nodules (1-2 mm diameter), no sand below 0.46 m.	S1				
226.1				SANDY CLAY - Brown, moist, soft, low plasticity, some fine to coarse grained sand, trace fine grained gravel.	S2				
225.8		5		SILTY CLAY - Brown, moist, stiff, intermediate to high plasticity, trace silt nodules (1-3 mm diameter). - Trace coarse grained sand, wood piece at 1.98 m.	S3				
225					S4				
224		10			S5				
223				- Firm below 3.96 m.	S6				
222.7		15		END OF TEST HOLE AT 4.57 m.					
222				Notes: 1. Backfilled test hole with auger cuttings and bentonite chips at the surface. 2. Test hole squeezing at 2.13 m below grade.					
221		20							

SAMPLE TYPE  Auger Grab

CONTRACTOR
Paddock Drilling Ltd.

INSPECTOR
C. FRIESEN

APPROVED
DEA

DATE
11/30/10