

**Geotechnical Report**

**Appendix B**  
**Test Hole Logs**  
**IDE 1987**



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 1

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD. & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

DATE DRILLED JUNE 27, 87

LOGGED BY GVN

ENGINEER KVL

CONTRACTOR PILE FOUNDATIONS LTD RIG WILLIAMS AUGER

HOLE SIZE 400 mm φ

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS	(SEE CODE)
						2	10 (K.S.F.)					
					SURFACE - GRASS							
2					ORGANIC CLAY FILL							
4	1		(CL)		ORGANIC CLAY - BLACK, LIGHTER IN COLOUR WITH DEPTH							
			(ML)		SILT - TAN - MOIST							
6	2				SILTY CLAY - BROWNISH-GREY - MEDIUM PLASTIC - BLOCK, FIRM TO STIFF TO 2.1m - FIRM BELOW 2.1m							R1
8												
10	3											T2
12	4		(CI/CH)									
14					- VARIED WITH HIGHLY PLASTIC GREY CLAY BELOW 4.0m							R3
16	5											T4
18												R5
20	6											T6
22	7											R7
24					SILTY CLAY - GREYISH-BROWN - FIRM - HIGHLY PLASTIC - WITH SILT POCKETS & SEAMS							
26	8		(CH)									T8
28					- WITH LARGE SANDY SILT POCKETS @ 8.4m							R9





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 2

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO.

2-16-25

2

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD. & WILKES AVE.

SHEET 1 OF 2

LOCATION REFER TO SITE PLAN

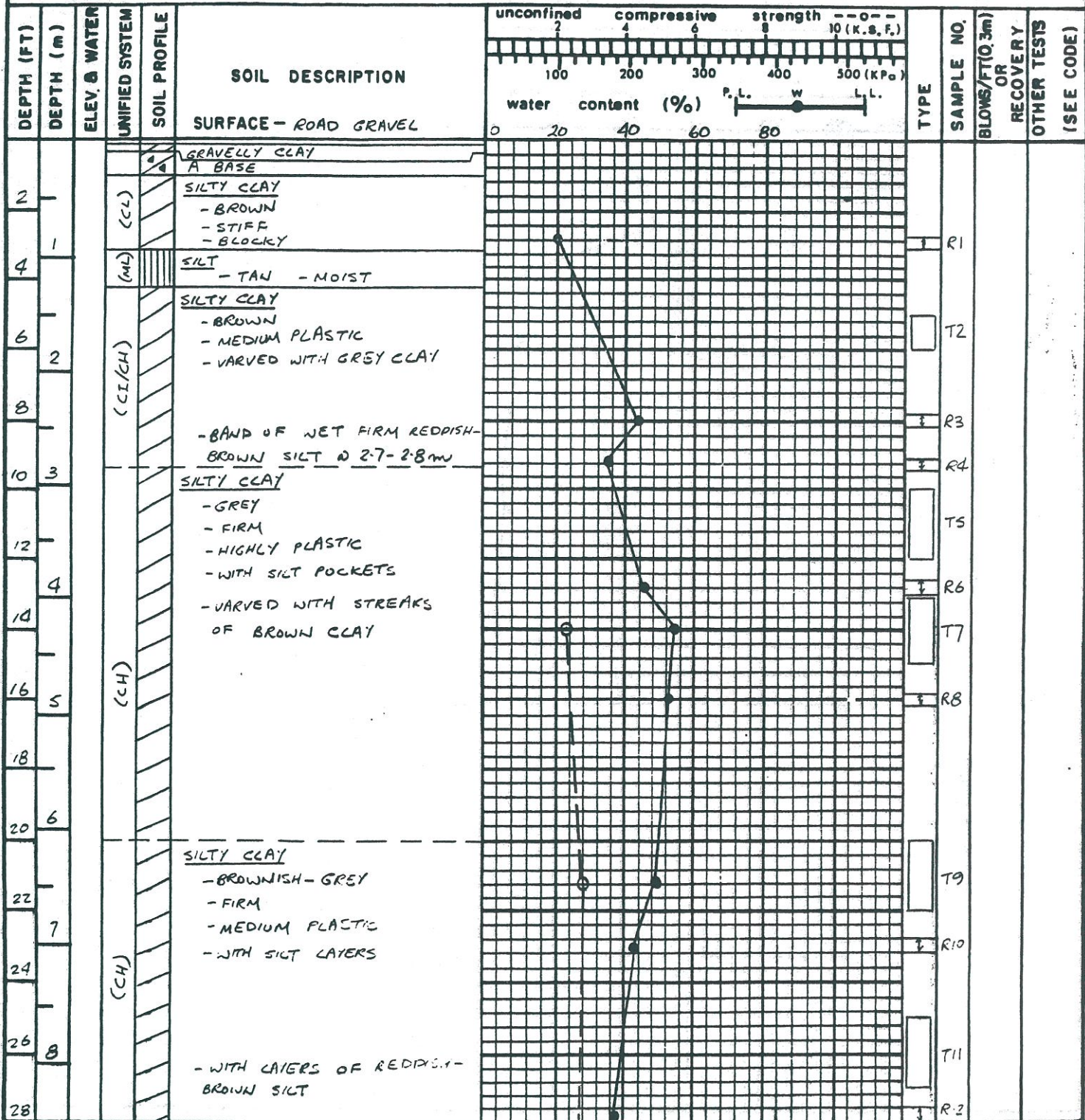
DATE DRILLED JUNE 25/87

LOGGED BY GVN

CONTRACTOR PILE FOUNDATIONS, LTD. RIG WILLIAMS AUGER

ENGINEER KVL

HOLE SIZE 400mm φ





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

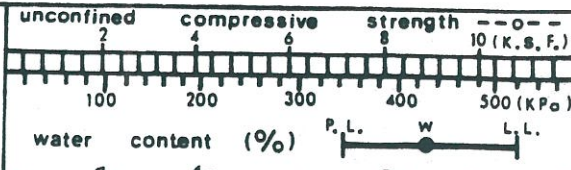
HOLE NO. 2

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.  
PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

JOB NO.  
12-16-25

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						10 (K.S.F.)	500 (KPa)				
30	9		(CH)	///	SILTY CLAY AS ABOVE						
32			(CH)	///	SILTY CLAY - GREY - FIRM - HIGHLY PLASTIC				T13		
34	10			Δ	TILL - GREYISH-BROWN - MOIST - SOFT - WITH BOULDERS BELOW 10.4m				R14		
36	11			Δ	- BECOMES HARD TO VERY HARD BELOW 11.4m				R15		
38				Δ					R16		
40	12			Δ					R17		
42	13			Δ							
44				Δ					R18		
46	14				- POWER AUGER REFUSAL ON DENSE TILL WITH BOULDERS @ 13.4m						





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 3

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

DATE DRILLED JUNE 26 / SEP. 18, 87

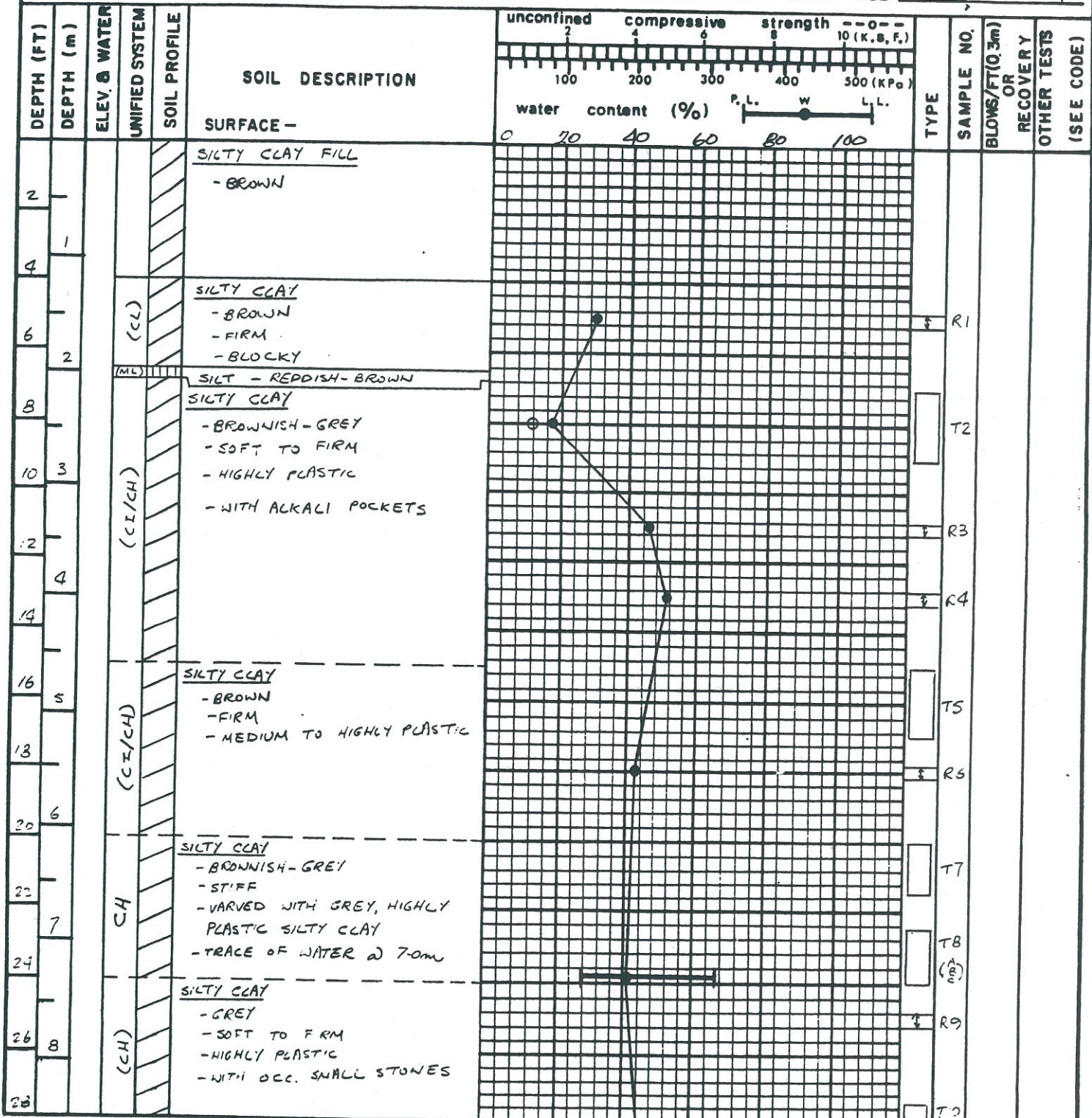
LOGGED BY GVN

CONTRACTOR PILE FOUNDATIONS LTD.  
PADDOCK DRILLING LTD.

RIG WILLIAMS AUGER  
SUS PECH BRAT 22

ENGINEER KVL

HOLE SIZE 400mm / 200mm  $\phi$





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 3

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.  
PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

JOB NO.  
12-16-25

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (KPa)		TYPE	SAMPLE NO.	BLOWS/FT (0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						100	200				
30	9				SILTY CLAY AS ABOVE	100	200		T10 ( $\sigma$ )		
32									R11		
34	10			(CH)	- WITH NUMEROUS TAN SILT POCKETS & LAYERS BELOW 10.0m				T12		
36	11										
38									R13		
40	12				TILL - GREY - WET - SOFT				S1	131	
42					TILL - BROWNISH-GREY - DENSE - WITH BOULDERS - POWER AUGER REFUSAL @ 12.5m				R14		
44	13								R15	112	S2
46	14				- WITH GRANITE ROCKS IN STONY TILL				S3	79	
					- HOLE DISCONTINUED @ 13.7m DUE TO LOST OF DRILL BIT IN BOULDERY TILL						



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 4

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO.

12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD. & WILKES AVE.

SHEET 1 OF 2  
DATE DRILLED JUNE 26/SEP. 18. 87

LOCATION REFER TO SITE PLAN

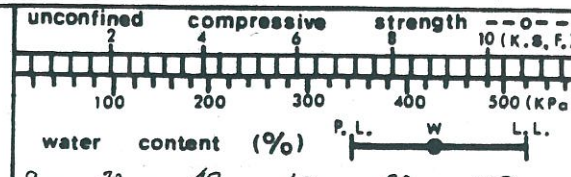
LOGGED BY GVN

ENGINEER KVL

CONTRACTOR PILE FOUNDATIONS LTD. PADDOCK DRILLING LTD. RIG WILLIAMS AUGER GUS PEH BRAT 22

HOLE SIZE 400mm / 200mm  $\phi$

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (K.S.F.)		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS	(SEE CODE)
						10	10					
					SURFACE -							
2					SILTY CLAY FILL - VERY SILTY							
4	1				ORGANIC CLAY - BLACK - STIFF							
6	2		(CL)		SILTY CLAY - GREYISH - BROWN - FIRM TO STIFF - BLOCKY, NUGGETY TO 23M							
8												
10	3		(ML)		SILT - REDDISH-BROWN - VERY MOIST							
12					SILTY CLAY - GREYISH - BROWN - FIRM - MEDIUM TO HIGHLY PLASTIC - WITH BROWN CLAY STREAKS - OCC. SILT POCKETS							
14	4											
16	5		(CI/CH)		- WITH REDDISH-BROWN SILT STREAKS							
18												
20	6											
22	7		CH		SILTY CLAY - BROWN/GREY - FIRM TO STIFF - MEDIUM TO HIGHLY PLASTIC - WITH TAN SILT POCKETS							
24												
26	8		(CH)		SILTY CLAY - GREY - FIRM - HIGHLY PLASTIC - WITH BROWN SILT POCKETS							
28												







# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 4

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.  
PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

JOB NO.  
12-16-25

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (KPa)		water content (%)	TYPE	SAMPLE NO.	BLOWS/FT (0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						0-100	100-500					
30	9			(CH)	SILTY CLAY AS ABOVE	2	4			T11 (2)		
32	10									R12		
34	11				TILL - GREY - MOIST TO WET - STONY					T13		
36	11									R14		
38	12											
40	12				- DRIER, HARDER BELOW 12.2m							
42	13									S1 R15	34	
44	13											
46	14				- SPT REFUSED @ 13.9m ON BOULDER					R16 S3	126	120 #02 0.23m
48	15				- POWER AUGER REFUSAL @ 14.2m					R17		



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 5

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-15

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

DATE DRILLED JUNE 26/SEP. 28, 87

LOGGED BY GVN

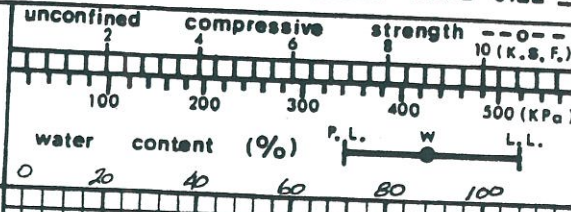
ENGINEER KVL

CONTRACTOR PILE FOUNDATION LTD.  
PADDOCK DRILLING LTD.

RIG WILLIAMS AUGER  
GUS PECH BRAT 22

HOLE SIZE 400mm/200mmφ

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (K.S.F.)	water content (%)	P.L.	W	L.L.	TYPE	SAMPLE NO.	BLOWS/FT (0.3m)	RECOVERY	OTHER TESTS	(SEE CODE)
2					SURFACE - GRAVELLY ORGANIC CLAY FILL											
4	1		(OH)		ORGANIC CLAY - BLACK - FIRM											
			(CL)		SILTY CLAY - GREYISH-LIGHT BROWN - VERY SILTY											
6	2		(ML)		SILT - TAN - WET											
10	3		(CC/CH)		SILTY CLAY - BROWN - FIRM - MEDIUM PLASTIC											
14	4		(CI/CH)		SILTY CLAY - BROWNISH-GREY - FIRM - VARVED WITH GREY CLAY - WITH REDDISH-BROWN AND TAN SILT POCKETS											
22	7		(CH)		SILTY CLAY - GREYISH-BROWN - SOFT TO FIRM - WITH OCC. SILT SEAMS & POCKETS											
26	8		(CH)		SILTY CLAY - GREY - FIRM - HIGHLY PLASTIC - WITH OCC. GREY SILT POCKETS											



TYPE	SAMPLE NO.	BLOWS/FT (0.3m)	RECOVERY	OTHER TESTS	(SEE CODE)
R1					
T2					
R3					
T4					
R5					
T6					
R7					
T8					



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 5

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

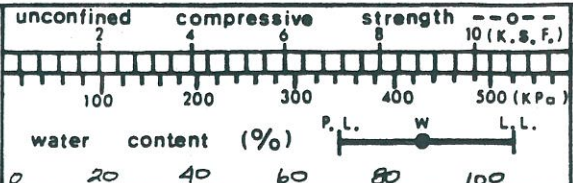
JOB NO.

12-16-15

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						100	200				
30	9			(CH)	SILTY CLAY AS ABOVE						
32											
34	10				- WITH STREAKS OF GREY TILL PUTT, BELOW 9.8m						
36	11				TILL						
38					- WET						
40	12				- WITH LAYERS OF FINE GRAVEL						
42					- SOFT						
44	13				- STONY						
46	14				- BOULDERY, A BIT DENSER BELOW 12.5m						
48					- POWER AUGER REFUSAL @ 12.6m						
50	15				- SPT REFUSED @ 12.2 m & @ 12.5m						
52	16				- SLIGHTLY SOFTER TILL @ 14.5m						
					- SPT REFUSED ON BOULDER @ 15.2m						



TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
	T10		
	R11		
	R12		
	R13		
	R14		
	S2	93	
	S3	95	
	S4	26	
	S5	140	





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 6

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-15-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (K.S.F.)		TYPE	SAMPLE NO.	BLOWS/FT (0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						100	200				
30	9			(CH)	SILTY CLAY AS ABOVE						
32	10								T12		
34									R13		
36	11				- TRACE OF TILL PUTTY BELOW 10.7m				T14		
38									R15		
40	12				TILL - GREY - SOFT, WET						
42									R16		
44	13				- HARD BELOW 12.8m				S1	54	
46	14				- BOULDERS WITH FREE WATER BELOW 13.9m - POWER AUGER REFUSAL @ 14.2m				S2	SG FOR 0.23m	
48	15				- SPT REFUSED ON A BOULDER @ 14.3m				R17		
									S3	140	



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 7

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD. & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

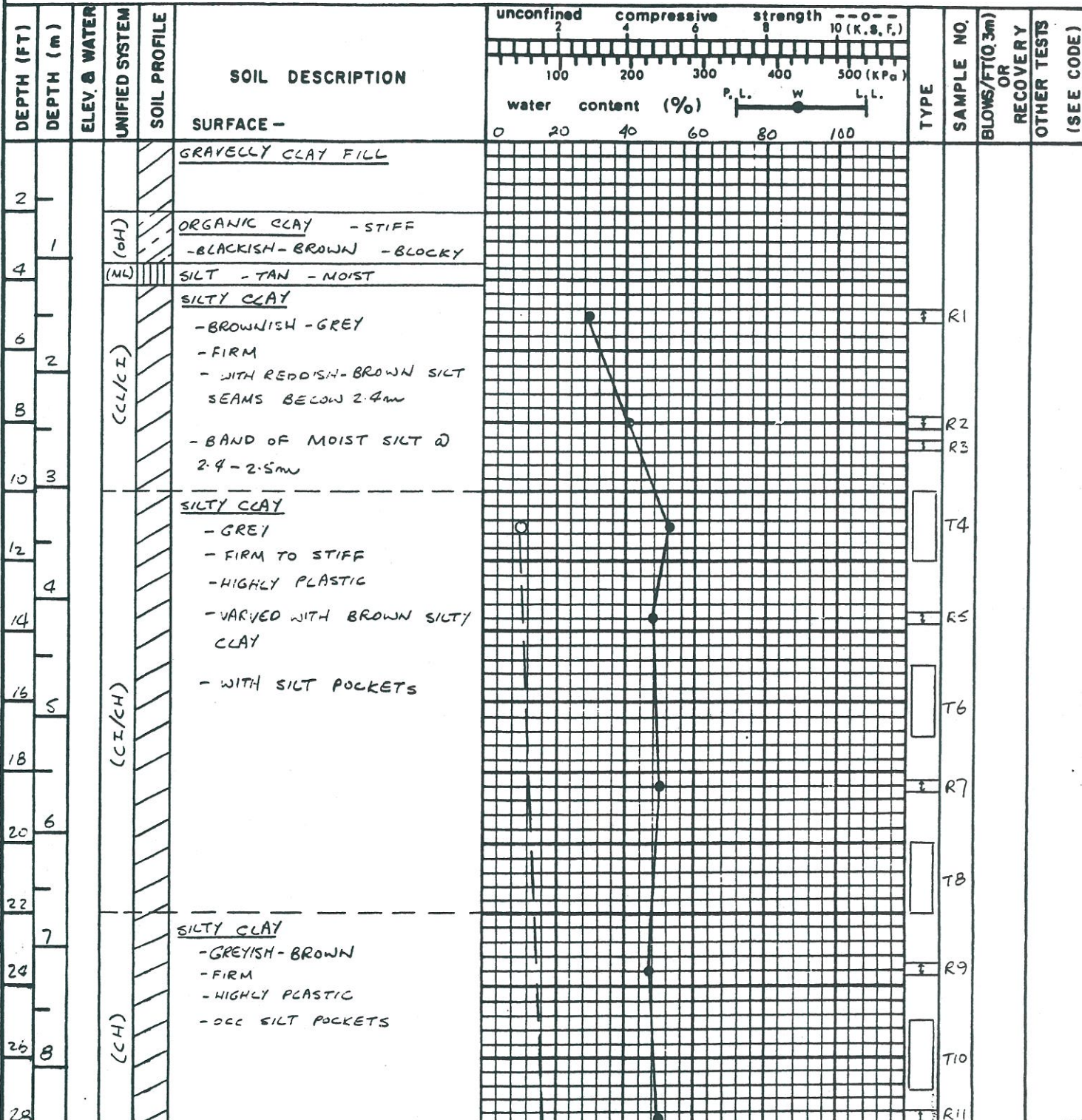
DATE DRILLED JUNE 25/87

LOGGED BY GVN

ENGINEER KVL

CONTRACTOR PILE FOUNDATIONS LTD. RIG WILLIAMS AUGER

HOLE SIZE 400mm φ





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 7

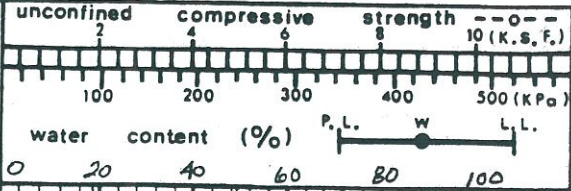
CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT (0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						10 (K.S.F.)	500 (KPa)				
30	→				SILTY CLAY AS ABOVE						
32	10			(CH)	- MORE SILT POCKETS BELOW 9.8m				T12		
34									R13		
36	11				TILL - GREY - MOIST - WITH SMALL STONES				T14		
38									R15		
40	12				- DRIER, FIRMER BELOW 11.9m				R16		
42					- HARD, WITH BOULDERS BELOW 12.5m				R17		
44	13				- BOULDERY, WITH FREE WATER @ 13.7m				R18		
46	14				- POWER AUGER REFUSAL ON BOULDERS @ 13.7m						









# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 8

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

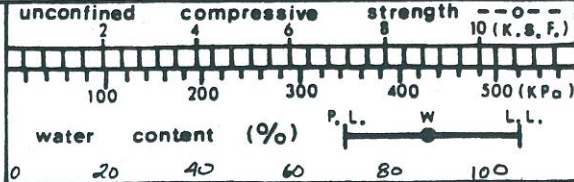
JOB NO.

12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						(K.S.F.)	(KPa)				
30	9			(SCH)	SILTY CLAY AS ABOVE				T10		
32									T11		
34	10								R12		
36	11				TILL - BROWNISH-GREY - WET - SOFT - SILTY, STONY, WITH BOULDERS				R13		
38									R14	3	
40	12				- DRIER, DENSER BELOW 12.6m				S1		
42									S2	13	
44	13				- POWER AUGER REFUSAL @ 12.8m				S3		
46	14				- HARD, DENSE TILL				R5	25	
					- REFUSAL OF SPT ON DENSE TILL @ 13.9m				R16		
									S4	131	





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 9

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD. & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

DATE DRILLED SEPT. 17/87

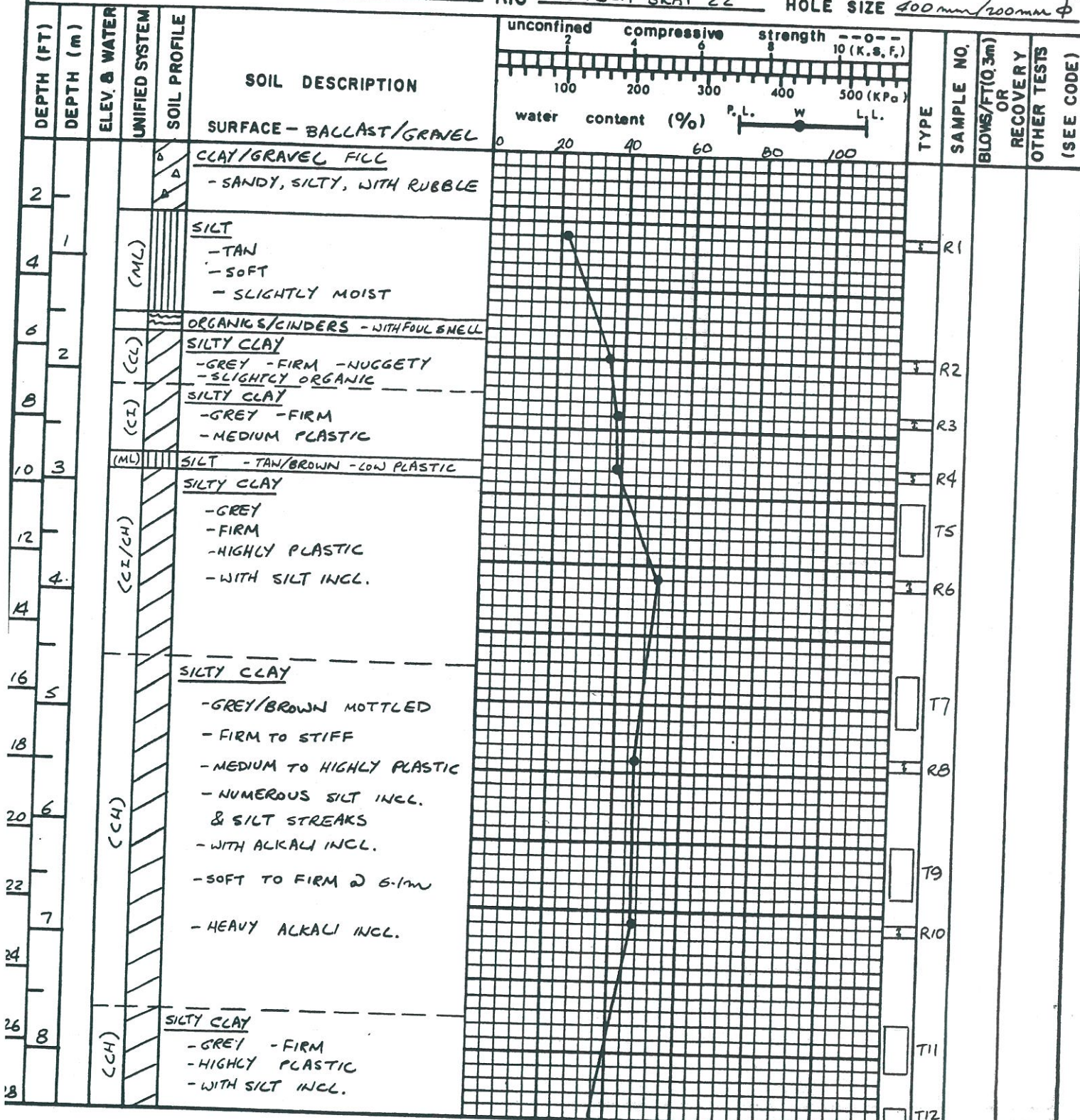
LOGGED BY CKK/GVN

CONTRACTOR PILE FOUNDATION LTD. PADDOCK DRILLING LTD.

RIG WILLIAMS AUGER GUS PECH BRAT 22

ENGINEER KVL

HOLE SIZE 400mm/200mm  $\phi$





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 10

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.  
PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

JOB NO.  
12-16-25

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						10 (K.S.F.)	500 (KPa)				
30	9				SILTY CLAY AS ABOVE				T12		
32									T13		
34	10			(CH)					R14		
36	11				- WITH TRACE OF TILL BELOW 10.7m				T15		
38									R16		
40	12				TILL				R17		
42					- TAN/BROWN - SOFT, WET - PUTTY				R18		
44									R19		
46	14				- DRIER, DENSER WITH DEPTH				S1	119	
48									S2	121	
50	15								R20		
52									S3	108	
54	16				- POWER AUGER REFUSAL ON BOULDERS @ 15.5m				R21		
									S4	76	
									R22		
56	17				- SPT REFUSED ON DENSE TILL @ 16.5m				S5	102	
									S6	156	



# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 10

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.

JOB NO. 12-16-25

PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

SITE OR SECTION KENASTON BLVD & WILKES AVE.

LOCATION REFER TO SITE PLAN

SHEET 1 OF 2

DATE DRILLED SEPT. 17/87

LOGGED BY CKK/GVN

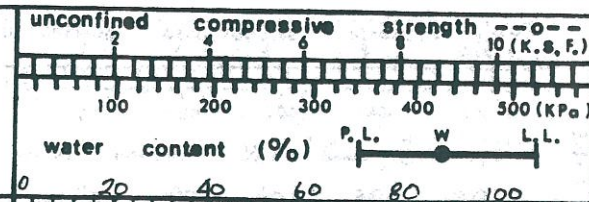
CONTRACTOR PILE FOUNDATION LTD. PADDOCK DRILLING LTD.

RIG WILLIAMS AUGER GUS PECH BRAT 22

ENGINEER KVL

HOLE SIZE 400mm φ

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength		TYPE	SAMPLE NO.	BLOWS/FT (0.3m) OR RECOVERY	OTHER TESTS	(SEE CODE)
						10 (K.S.F.)	500 (KPa)					
2				△	SURFACE - GRAVELLY CLAY/RUBBLE FILL - SILTY							
4	1		(ML)		SILT - TAN/STREAKS OF GREY - MOIST				R1			
6	2		(ML)		ORGANIC/INHER FILL SILT - TAN - MOIST				R2			
8			(CL)		SILTY CLAY - GREY - FIRM - LOW PLASTIC - NUGGETY				R3			
10	3		(ML)		SILT - TAN/BROWN - MOIST - SOFT TO MED. FIRM - SLIGHTLY CLAYEY				R4			
12	4		(CH)		SILTY CLAY - GREY/BROWN MOTTLED - SOFT TO FIRM - HIGHLY PLASTIC - WITH SILT STREAKS				T5			
14			(CH)						R6			
16	5		(CH)		- FIRM BELOW 4.6m - WITH NUMEROUS SILT POCKETS				T7			
18			(CH)						R8			
20	6		(CH)						T9			
22	7		(CH)						R10			
24			(CH)						T11			
26	8		(CH)		SILTY CLAY - GREY - FIRM - HIGHLY PLASTIC - WITH SILT INCL.				T12			
28			(CH)									





# INDEPENDENT TEST-LAB LIMITED

Geotechnical Engineering and Materials Testing

## SOIL LOG SHEET

HOLE NO. 9

CLIENT CITY OF WINNIPEG STREETS AND TRANSPORTATION DEPT.  
PROJECT KENASTON AND WILKES GRADE SEPARATION STUDY

JOB NO.  
12-16-15

SHEET 2 OF 2

DEPTH (FT)	DEPTH (m)	ELEV. & WATER	UNIFIED SYSTEM	SOIL PROFILE	SOIL DESCRIPTION	unconfined compressive strength (K.S.F.)		TYPE	SAMPLE NO.	BLOWS/FT(0.3m) OR RECOVERY	OTHER TESTS (SEE CODE)
						100	200				
30	9				SILTY CLAY AS ABOVE				T12		
32	10			(CH)					T13		
34											
36	11				- TRACE OF TILL & PEBBLES BELOW 10.7m				T14		
38									R15		
40	12				TILL - LIGHT GREY - SOFT, PUTTY - SANDY, GRAVELLY				R16		
42					- BROWN, SLIGHTLY DRIER BELOW 12.2m				R17		
44	13				- DENSE BELOW 12.8m - POWER AUGER REFUSAL @ 13.1m				R18 S15	79	
46	14								S2	125 FOR 0.28m	
48					- SPT REFUSED ON BOULDER @ 14.0m				S3	BS	

