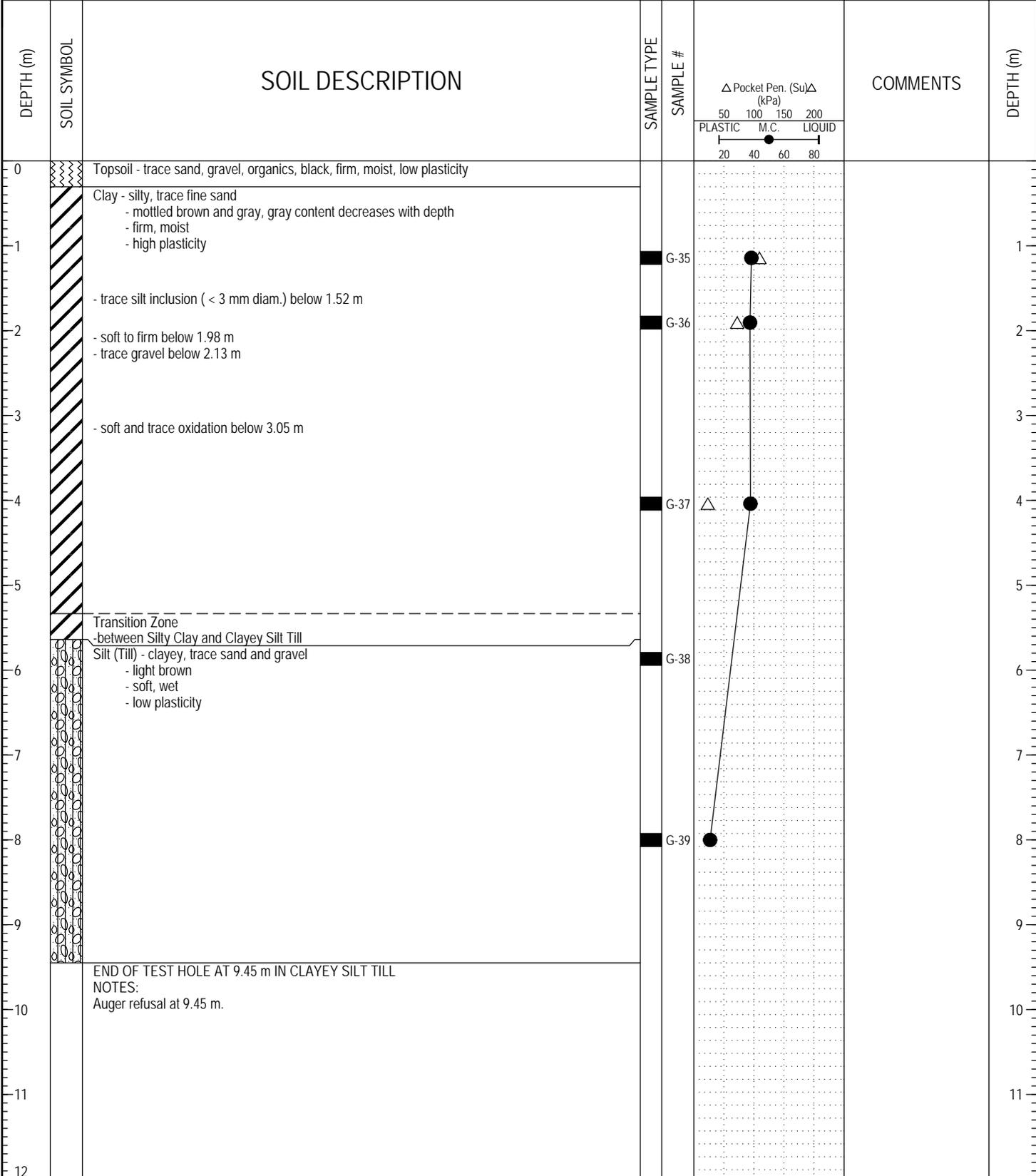


APPENDIX A

TEST HOLE LOGS

PROJECT: Moorgate/Strathmillan Sewer Relief Project	CLIENT: City of Winnipeg - Water and Waste Dept.	TESTHOLE NO: TH-04
LOCATION: Corner of Strathmillan Rd. and Lodge Ave., 4 metres east of curb.		PROJECT NO.: 41-02-D265-096-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 5" Soil Stem Auger with Acker MP5-T Rig	ELEVATION (m):
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	



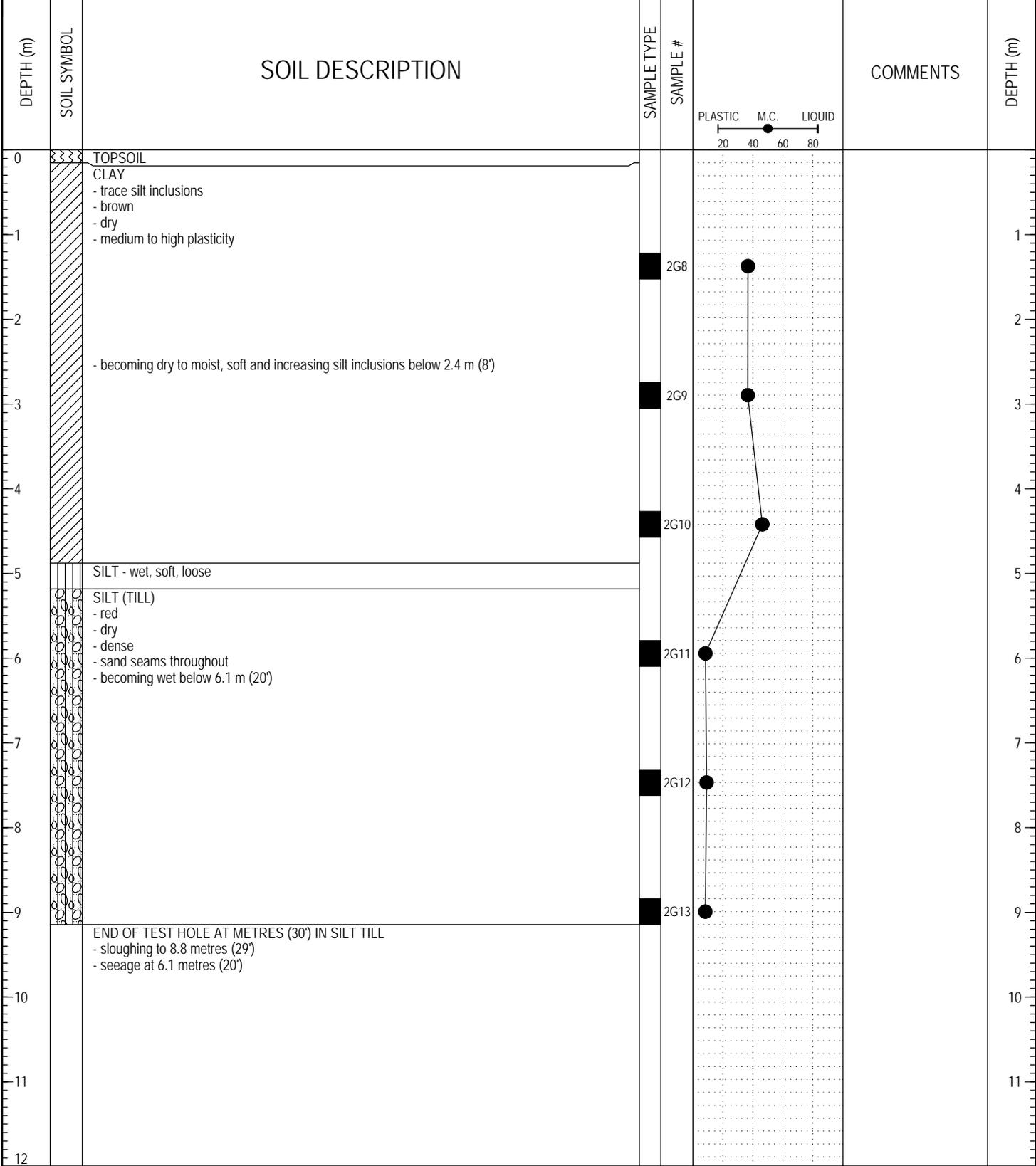
LOG OF TESTHOLE STRATH-1GPJ UMA.GDT 12/4/04



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 9.45 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 24/9/02
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Moorgate Strathmillan Sewer Relief	CLIENT: City of Winnipeg	TESTHOLE NO: TH-27
LOCATION: Between 320 and 326 Strathmillan Rd.		PROJECT NO.: 41-02-D265-096-03
CONTRACTOR: Maple Leaf Drilling Ltd.	METHOD: 125 mm solid stem augers.	ELEVATION (m):

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

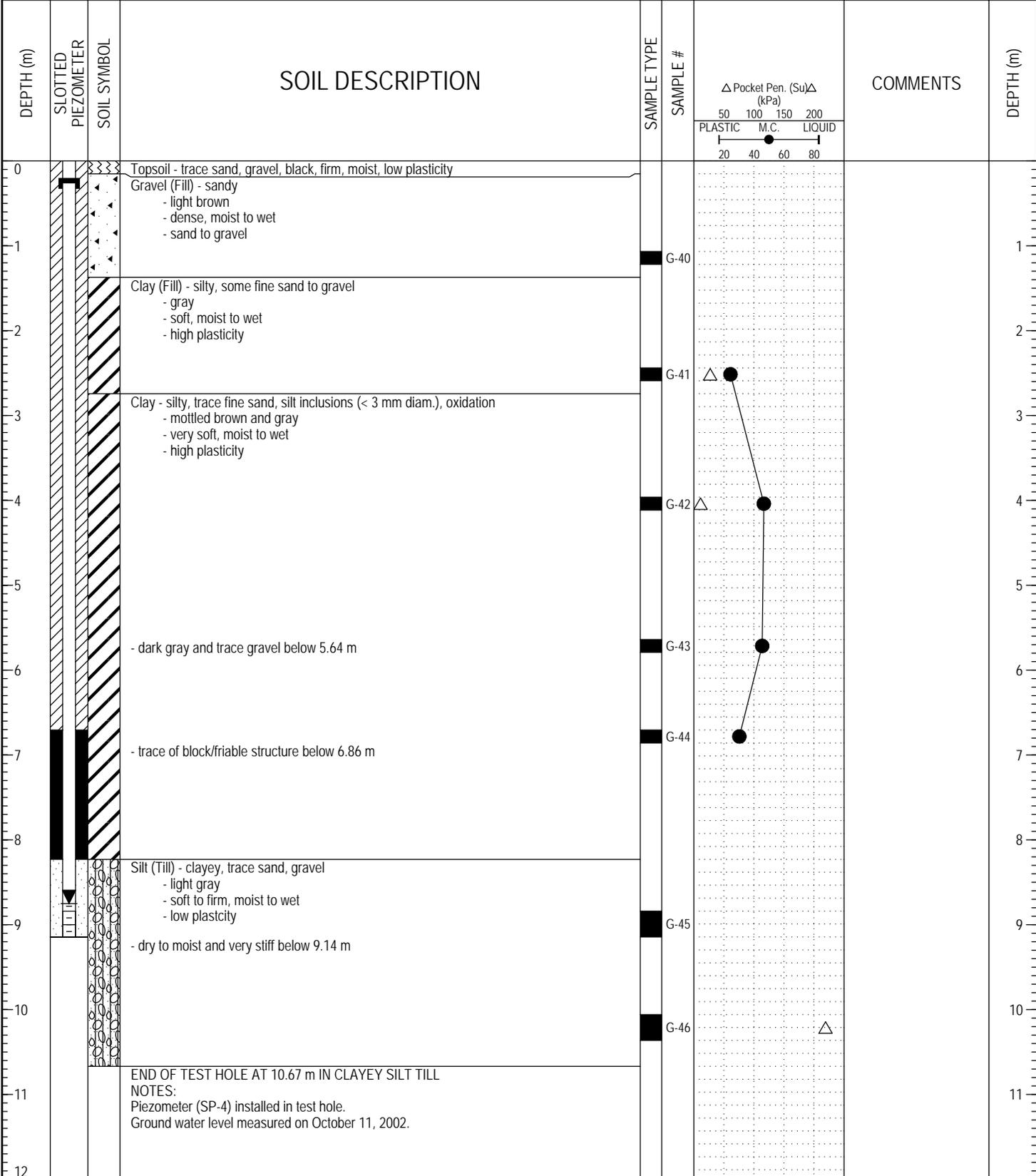


LOG OF TESTHOLE TEST HOLE LOGS 2003.GPJ UMA.GDT 12/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 9.14 m
REVIEWED BY: Darryl Schmidt	COMPLETION DATE: 1/10/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Moorgate/Strathmillan Sewer Relief Project		CLIENT: City of Winnipeg - Water and Waste Dept.		TESTHOLE NO: TH-05		
LOCATION: 30 metres south of Lodge Ave., 3 metres east of curb on Whytefold Rd.				PROJECT NO.: 41-02-D265-096-03		
CONTRACTOR: Paddock Drilling Ltd.		METHOD: 5" Soil Stem Auger with Acker MP5-T Rig		ELEVATION (m):		
SAMPLE TYPE	GRAB	SHELBY TUBE	SPLIT SPOON	BULK	NO RECOVERY	CORE
BACKFILL TYPE	BENTONITE	GRAVEL	SLOUGH	GROUT	CUTTINGS	SAND

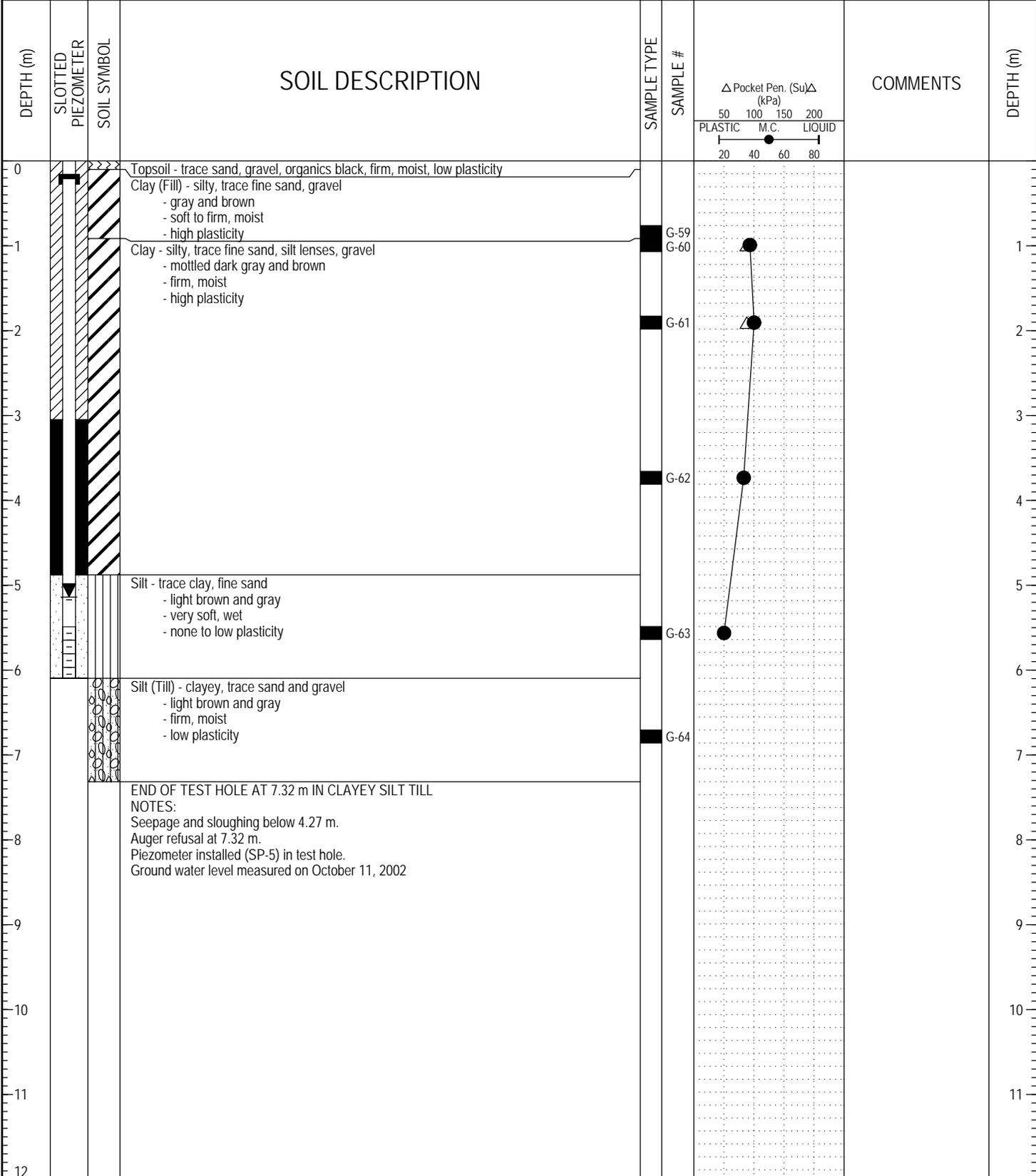


LOG OF TESTHOLE STRATH-1.GPJ UMA.GDT 12/4/04



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 10.67 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 24/9/02
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Moorgate/Strathmillan Sewer Relief Project		CLIENT: City of Winnipeg - Water and Waste Dept.		TESTHOLE NO: TH-06		
LOCATION: 40 metres east of Strathmillan Rd., 1.5 metres south of curb on Bruce Ave.				PROJECT NO.: 41-02-D265-096-03		
CONTRACTOR: Paddock Drilling Ltd.		METHOD: 5" Soil Stem Auger with Acker MP5-T Rig		ELEVATION (m):		
SAMPLE TYPE	GRAB	SHELBY TUBE	SPLIT SPOON	BULK	NO RECOVERY	CORE
BACKFILL TYPE	BENTONITE	GRAVEL	SLOUGH	GROUT	CUTTINGS	SAND



LOG OF TESTHOLE STRATH-1.GPJ UMA.GDT 12/4/04



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 7.32 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 24/9/02
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Moorgate/Strathmillan Sewer Relief Project	CLIENT: City of Winnipeg - Water and Waste Dept.	TESTHOLE NO: TH-07
LOCATION: 3 metres south of curb on Bruce st. between Whytefold rd. and Strathmillan st.		PROJECT NO.: 41-02-D265-096-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 5" Soil Stem Auger with Acker MP5-T Rig	ELEVATION (m):
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	

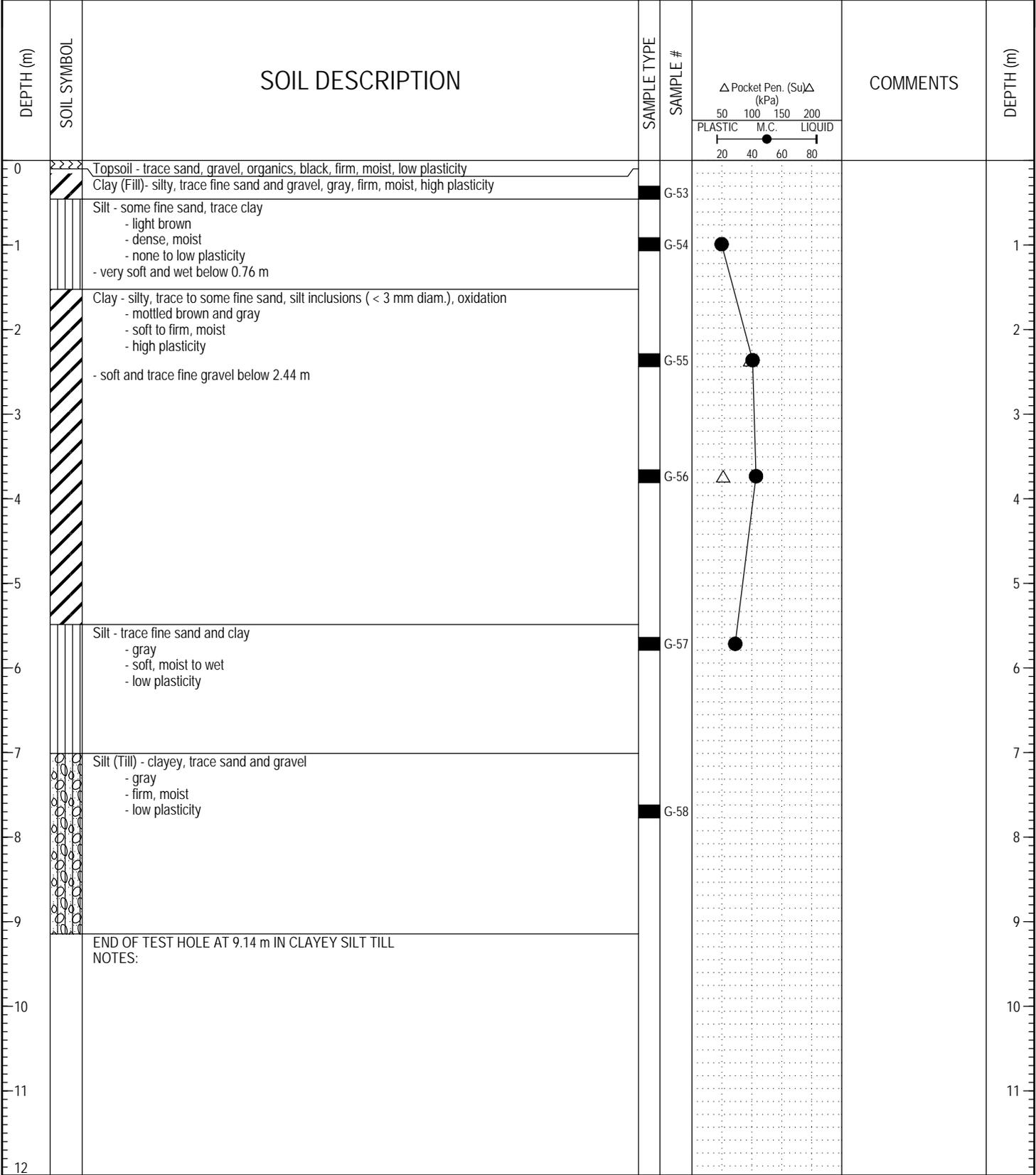
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	Pocket Pen. (Su) (kPa)		COMMENTS	DEPTH (m)
					PLASTIC	M.C. LIQUID		
0	XXXX	Topsoil - trace sand, gravel, organics, black, firm, moist, low plasticity						
0	XXXX	Clay (Fill) - silty, trace fine sand - black and gray - firm, moist - high plasticity	█	G-47				1
2	XXXX	Clay - silty, trace to some fine sand, silt inclusions (< 3 mm diam.), oxidation - mottled brown and gray - soft to firm, moist - high plasticity - very soft and trace gravel below 2.74 m	█	G-48				2
4	XXXX		█	G-49				4
5	XXXX	Silt - some fine sand - light brown - dense, moist - none to low plasticity	█	G-50				5
6	XXXX	Silt (Till) - clayey, trace sand and gravel - light brown - firm, moist - low plasticity	█	G-51				6
7	XXXX		█	G-52				7
8.23		END OF TEST HOLE AT 8.23 m IN CLAYEY SILT TILL NOTES: Auger refusal at 8.23 m.						8.23

LOG OF TESTHOLE STRATH-1.GPJ UMA.GDT 12/4/04



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 8.23 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 24/9/02
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1

PROJECT: Moorgate/Strathmillan Sewer Relief Project	CLIENT: City of Winnipeg - Water and Waste Dept.	TESTHOLE NO: TH-08
LOCATION: 0.25 metres east of pavement edge on Strathmillan Rd., 10 metres south of Ness Ave.		PROJECT NO.: 41-02-D265-096-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 5" Soil Stem Auger with Acker MP5-T Rig	ELEVATION (m):
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	



LOG OF TESTHOLE STRATH-1.GPJ UMA.GDT 12/4/04



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 9.14 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 24/9/02
PROJECT ENGINEER: Nelson Ferreira	Page 1 of 1