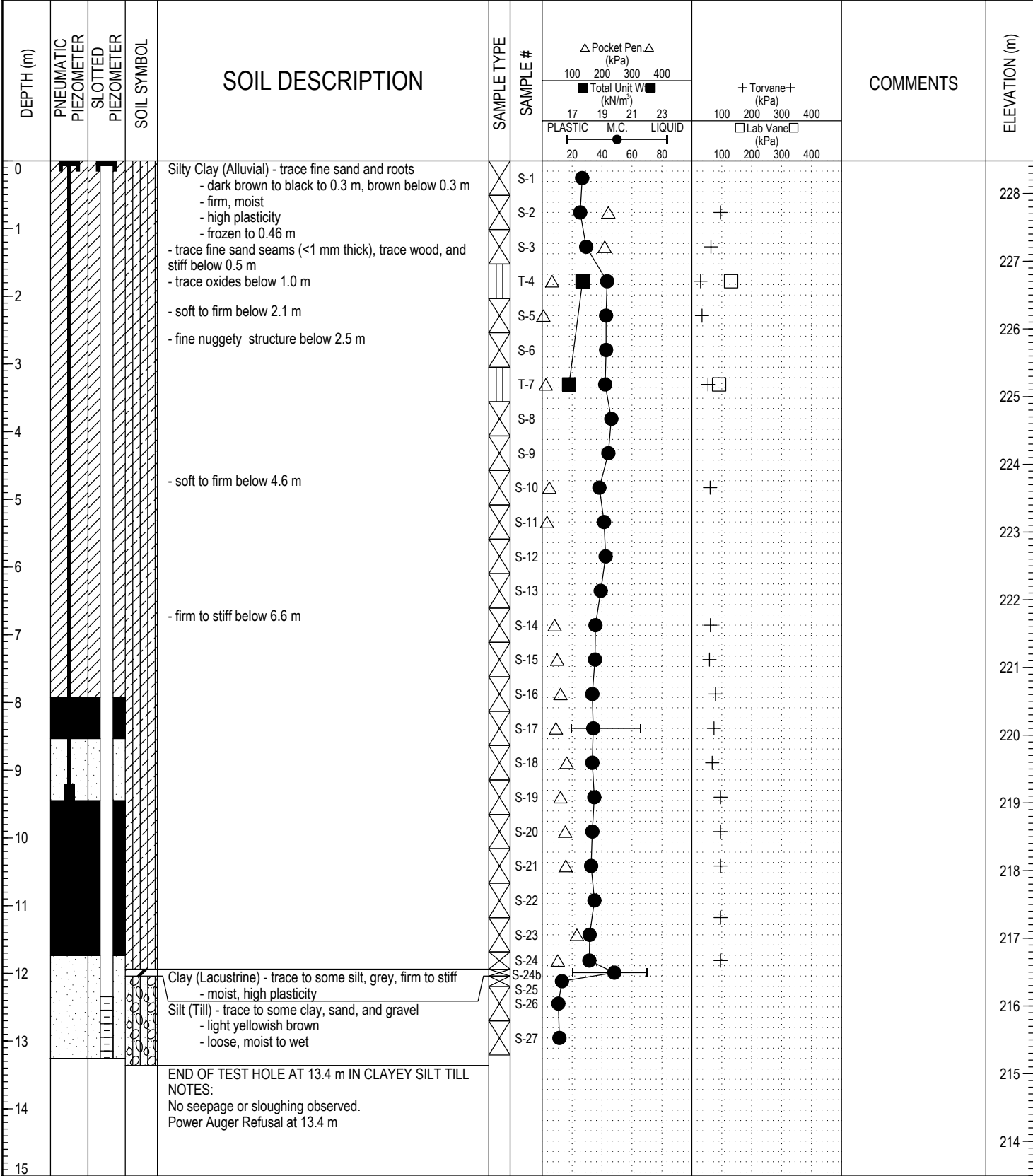


PART G

TEST HOLE LOGS AND GROUNDWATER DATA

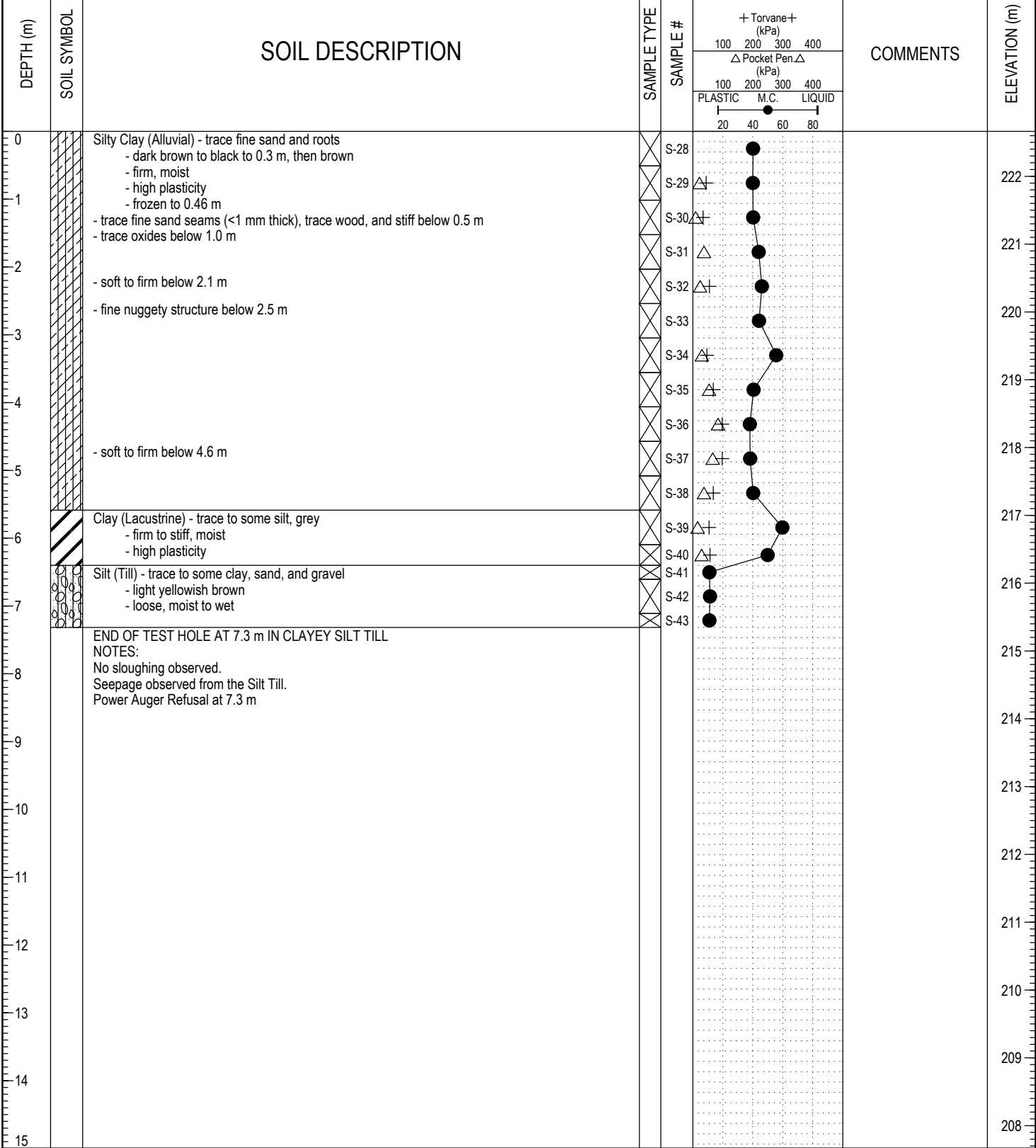
PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-1
LOCATION: On riverbank between #32 and #38 Lord avenue.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 205 mm Hollow Stem Augfer with RM-30	ELEVATION (m): 228.482
SAMPLE TYPE	<input 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	
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 13.40 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE:
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-2
LOCATION: North Lord avenue along toe of bank.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 205 mm Hollow Stem Augfer with RM-30	ELEVATION (m): 222.663

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
-------------	--	--------------------------------------	--------------------------------------	-------------------------------	--------------------------------------	-------------------------------



END OF TEST HOLE AT 7.3 m IN CLAYEY SILT TILL
NOTES:
No sloughing observed.
Seepage observed from the Silt Till.
Power Auger Refusal at 7.3 m

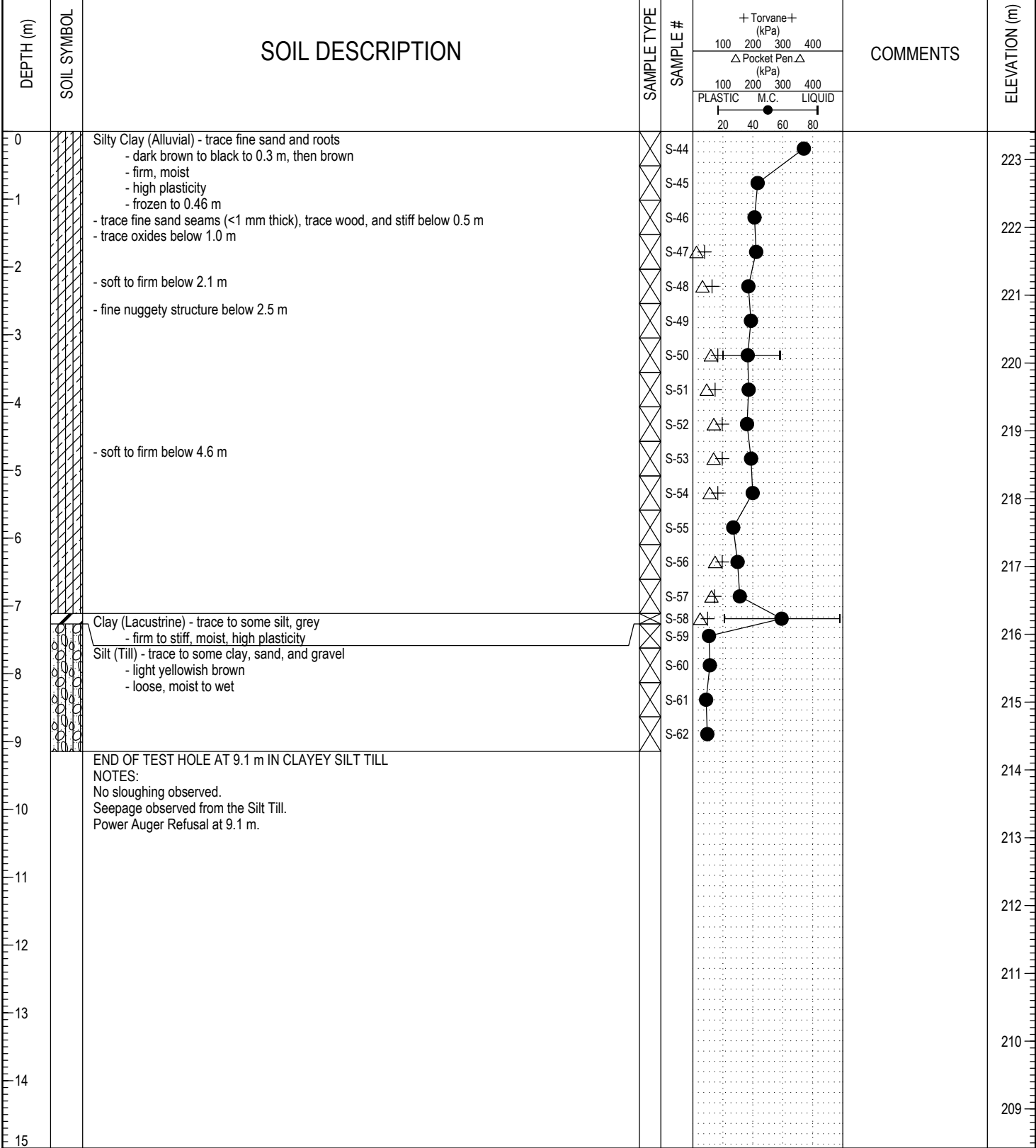
LOG OF TESTHOLE LORD AVENUE TH-1 TO TH-5.GPJ UMA GDT 3/1/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 7.30 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE:
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-3
LOCATION: North Lord avenue along toe of bank.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 205 mm Hollow Stem Augfer with RM-30	ELEVATION (m): 223.417

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
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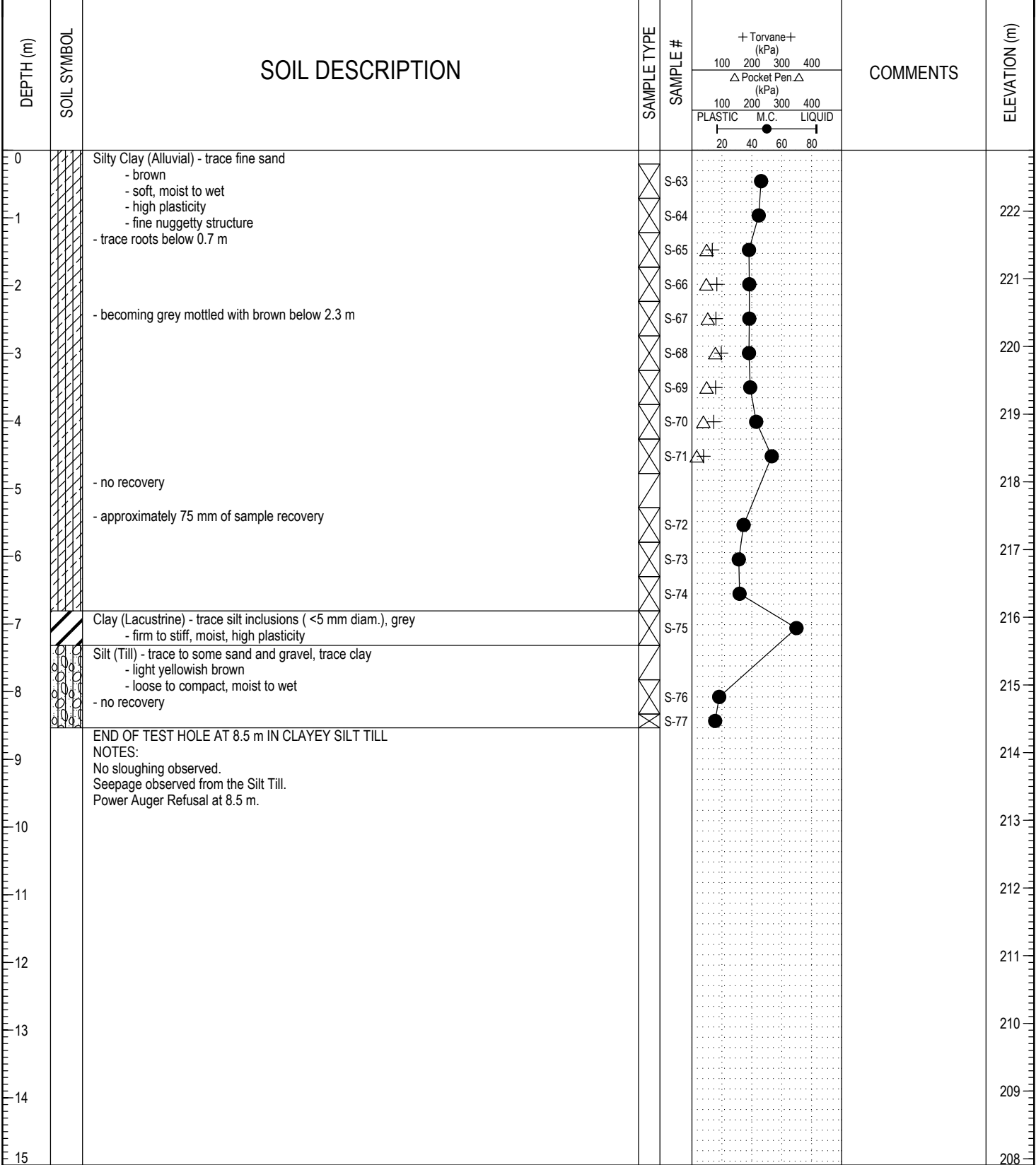
LOG OF TESTHOLE LORD AVENUE TH-1 TO TH-5 GPJ UMA GDT 3/1/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 9.10 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE:
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-4
LOCATION: North Lord avenue along toe of bank.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 205 mm Hollow Stem Augfer with RM-30	ELEVATION (m): 222.9

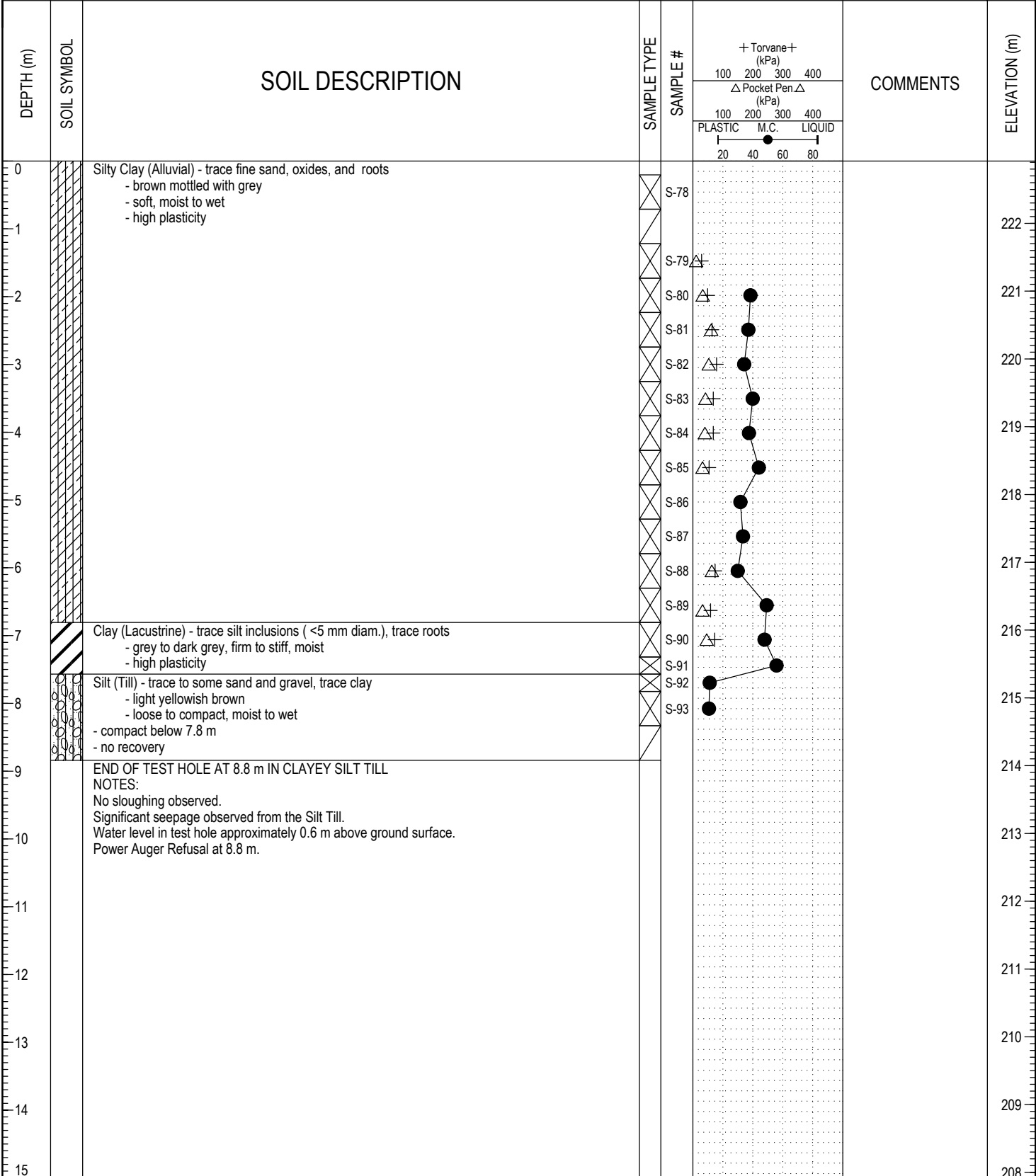
SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE



	LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 8.50 m
	REVIEWED BY: Jeff Tallin	COMPLETION DATE:
	PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

LOG OF TESTHOLE LORD AVENUE TH-1 TO TH-5 GPJ UMA GDT 3/1/03

PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-5
LOCATION: North Lord avenue along toe of bank.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 205 mm Hollow Stem Auger with RM-30	ELEVATION (m): 222.919
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	

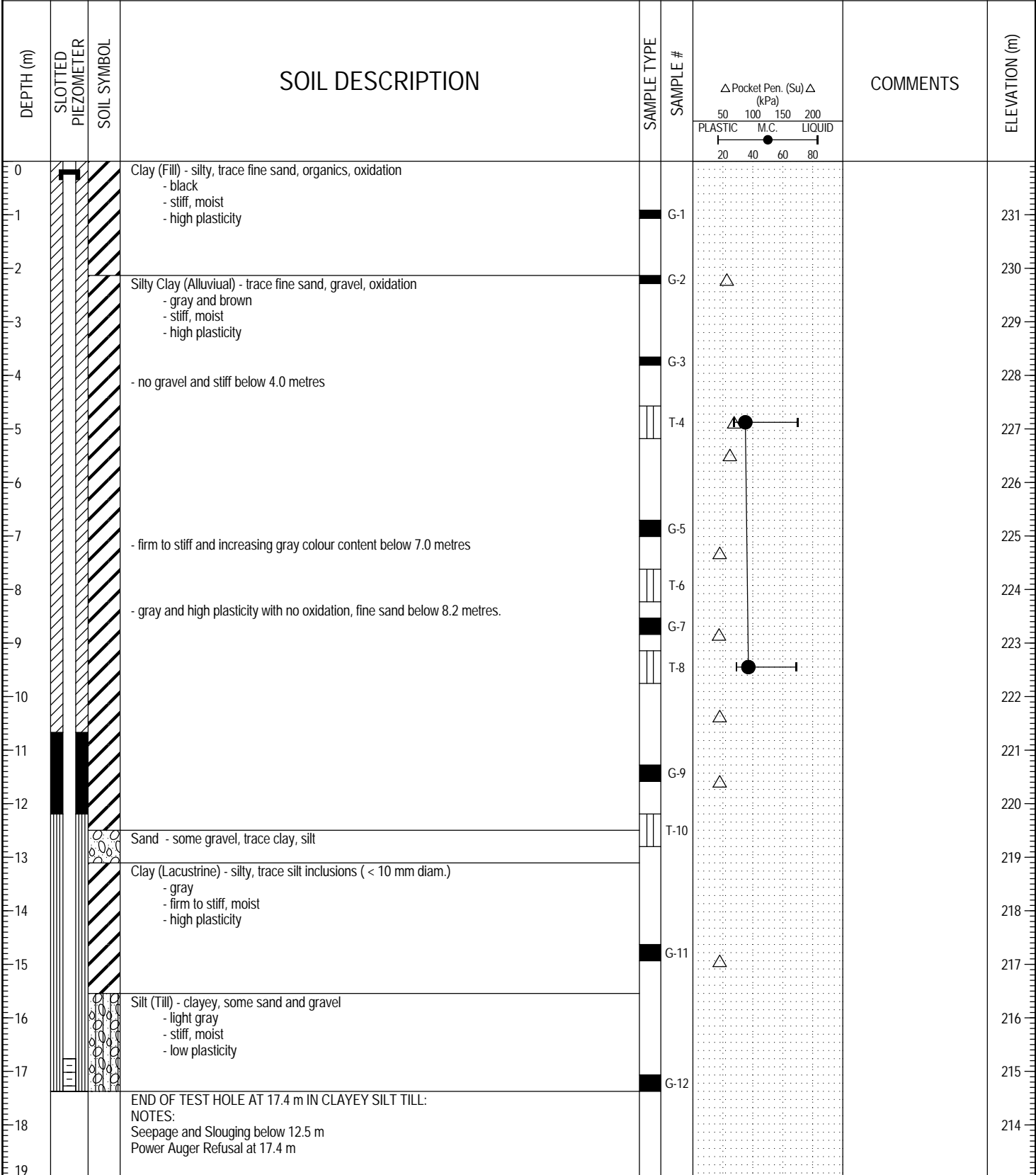


LOG OF TESTHOLE LORD AVENUE TH-1 TO TH-5.GPJ UMA GDT 3/1/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 8.80 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE:
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dike	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: SP-6
LOCATION: Top river bank north of 38 Lord avenue.		PROJECT NO.: D265-147-02
CONTRACTOR: Paddock Drilling Ltd.	METHOD: 5" Solid Stem Auger with MP5-T	ELEVATION (m): 232
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
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 17.40 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 23/10/02
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-7
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5, 5 inch solid stem augers	ELEVATION (m): 222.4
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

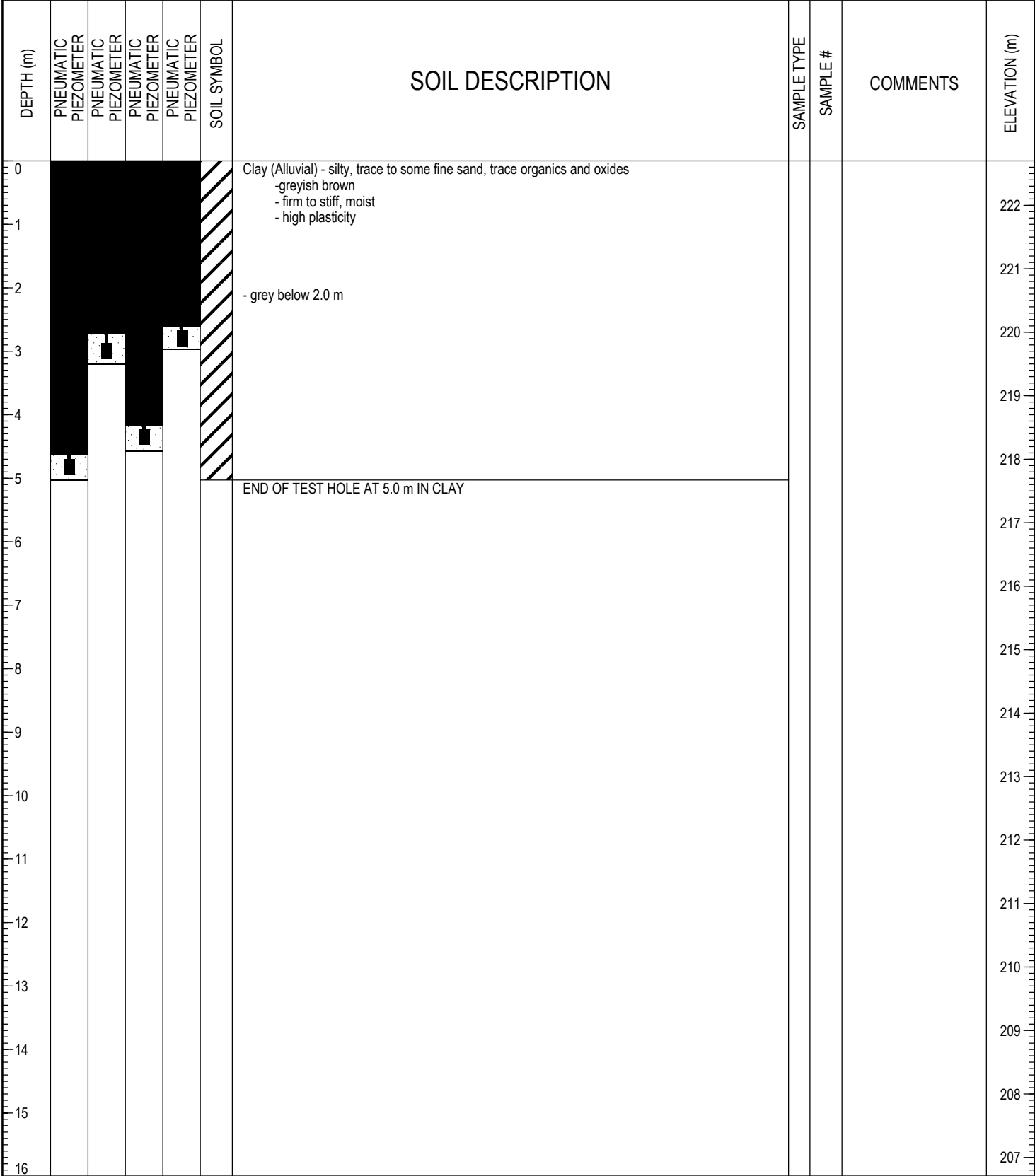
DEPTH (m)	PNEUMATIC PIEZOMETER	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0			Clay (Alluvial) - silty, trace to some fine sand, trace organics - greyish brown - firm to stiff, moist - high plasticity				222
1							221
2							220
3			END OF TEST HOLE AT 3.0 m IN CLAY				219
4							218
5							217
6							216
7							215
8							214
9							213
10							212
11							211
12							210
13							209
14							208
15							207
16							207

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 2/12/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-8
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5, 5 inch solid stem augers	ELEVATION (m): 222.7
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
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND





LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 5.03 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 2/12/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-9
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5, 5 inch solid stem augers	ELEVATION (m): 222.4
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

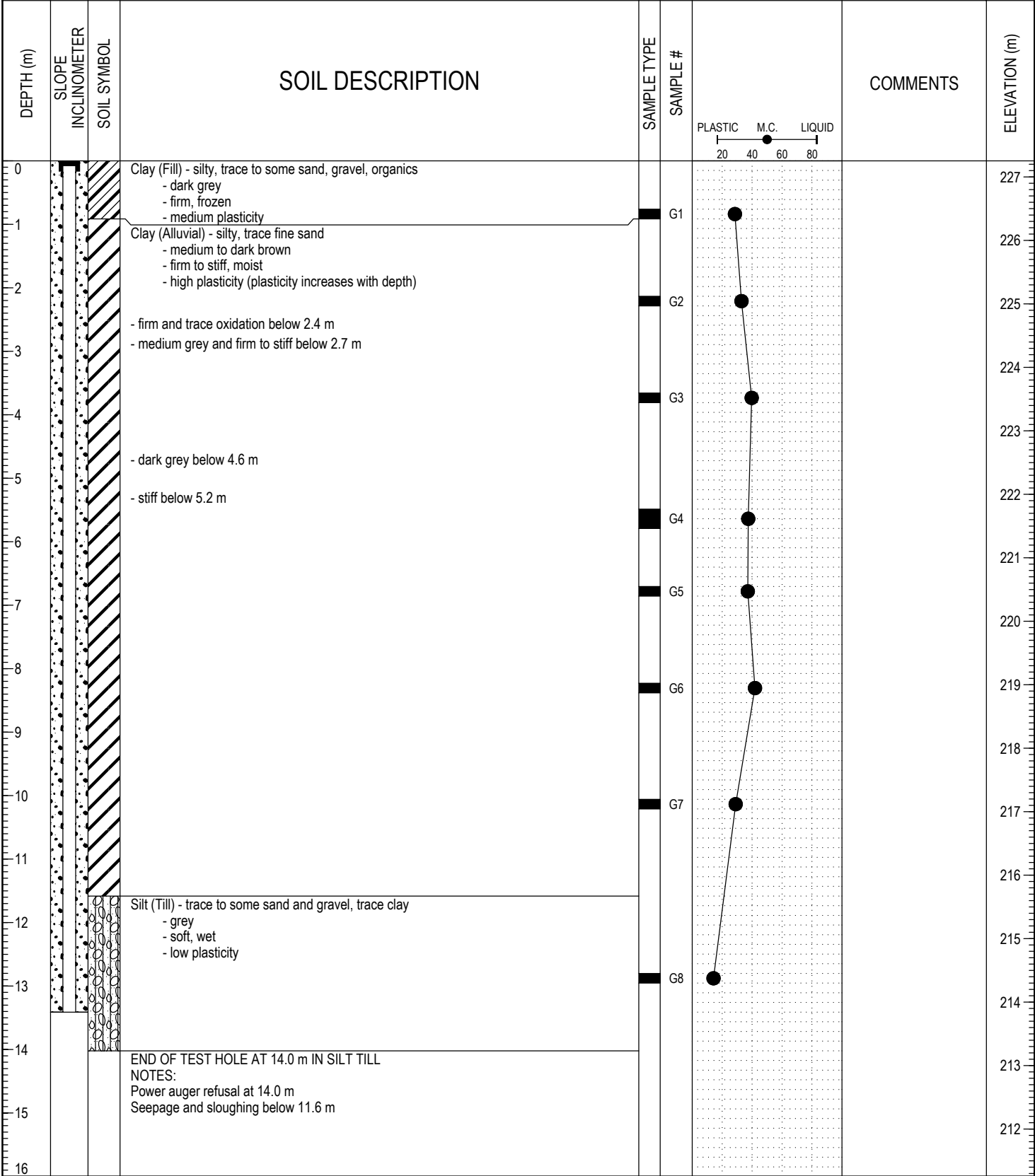
DEPTH (m)	PNEUMATIC PIEZOMETER	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0			Clay (Lacustrine) - silty, trace silt inclusions (< 5 mm diam.), trace limestone fragments (< 10 mm diam.) - brown to greyish brown - soft to firm, moist - high plasticity				222
1							221
2							220
3			END OF TEST HOLE AT 3.0 m IN CLAY				219
4							218
5							217
6							216
7							215
8							214
9							213
10							212
11							211
12							210
13							209
14							208
15							207
16							207

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Jeff Tutkaluk	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 2/12/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SI-10
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 227.253
SAMPLE TYPE	<input 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
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

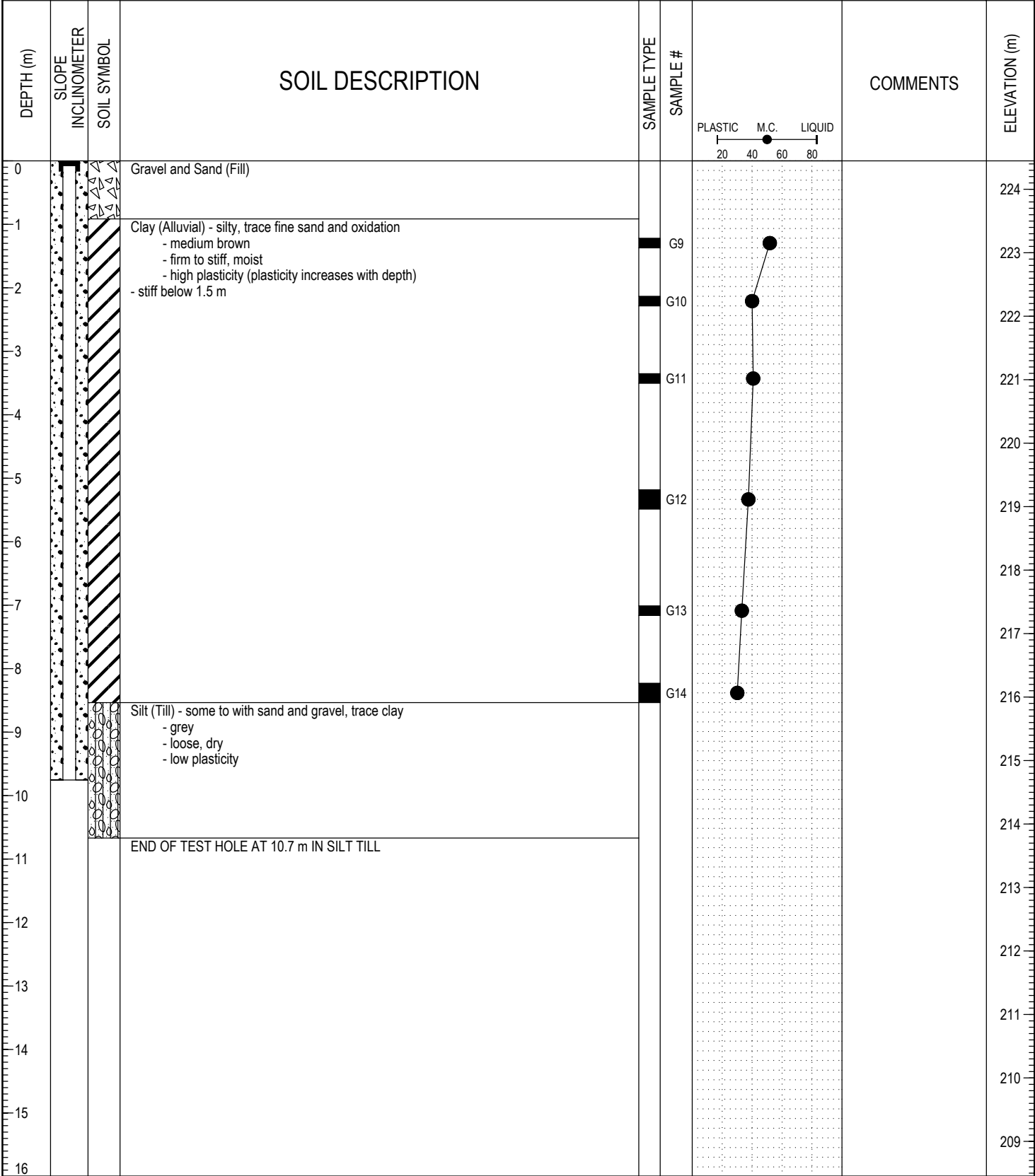


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 14.02 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/6/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SI-11
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 224.448
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
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

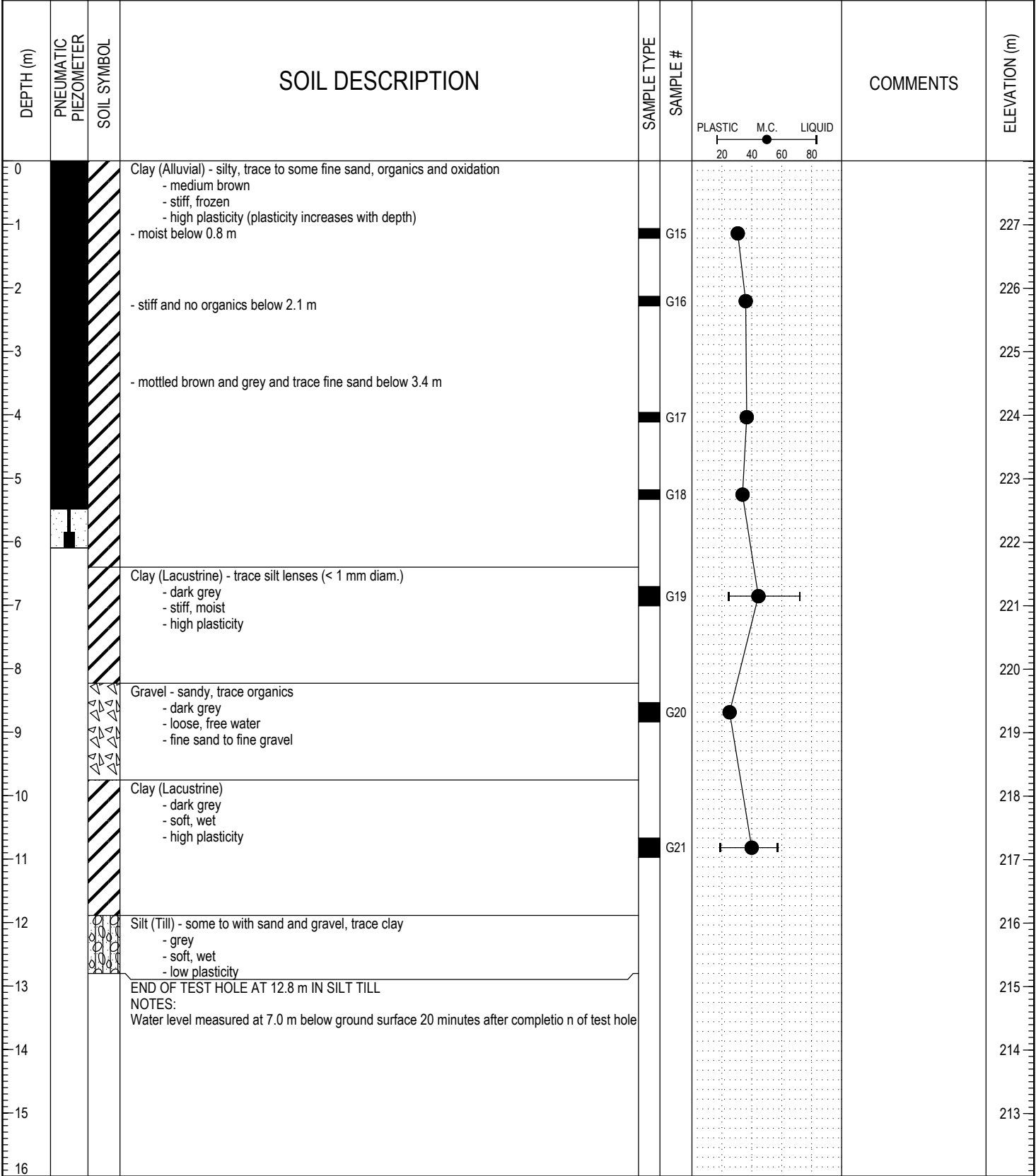


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 10.67 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/6/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-12
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.008
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	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	

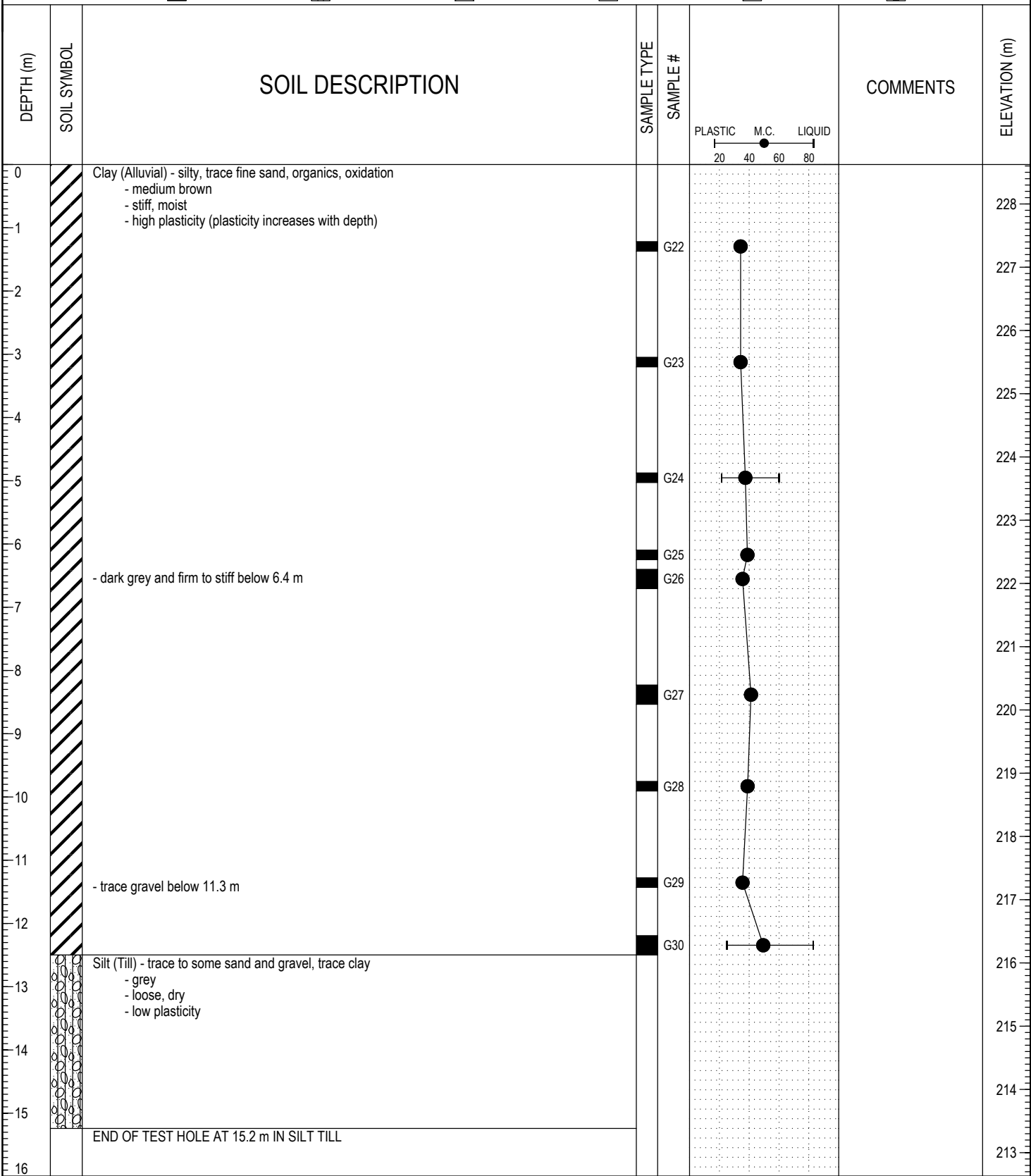


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 12.80 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-13
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.624
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	



LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GP.J UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 15.24 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-14
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 227.118
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

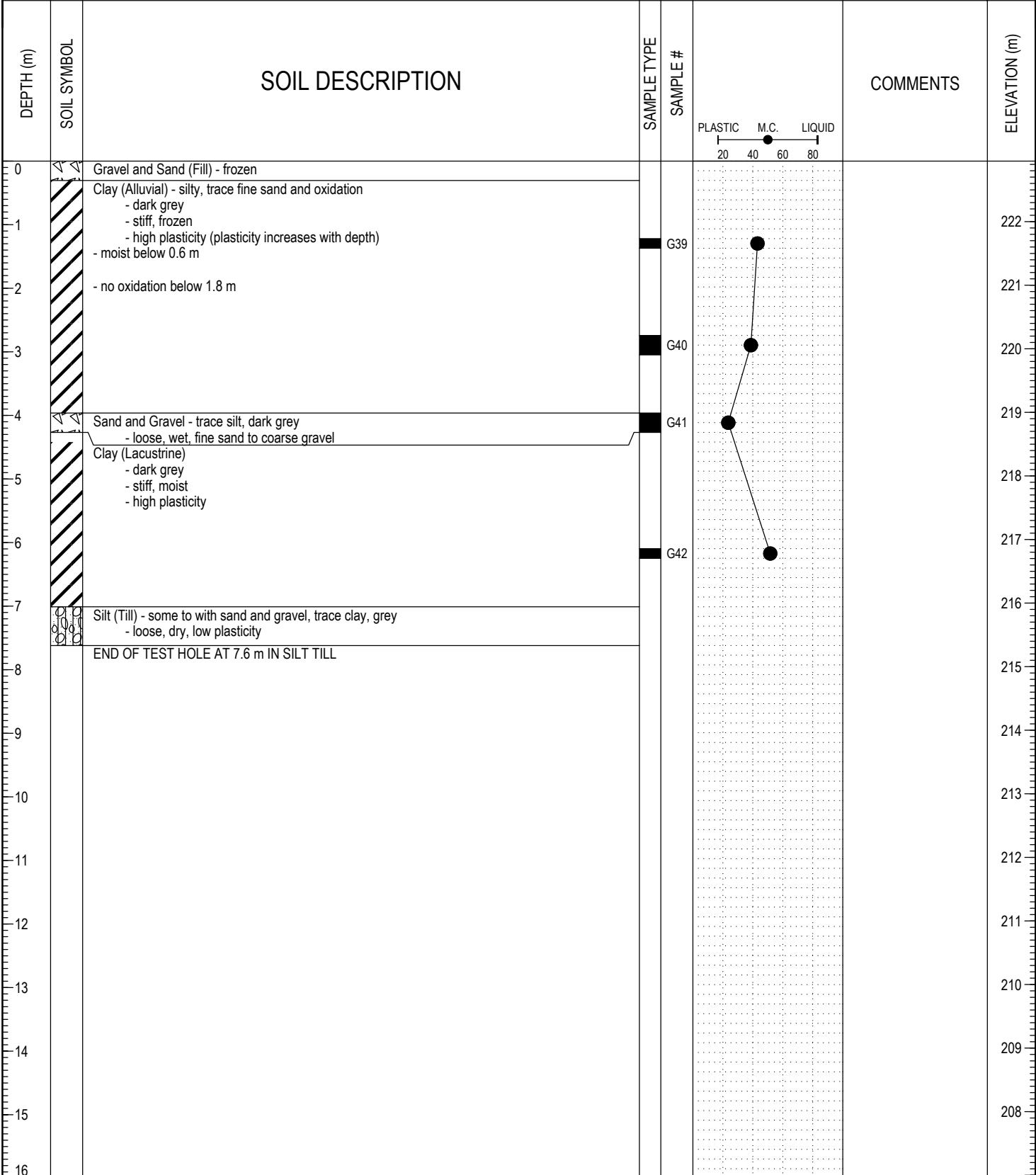
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	PLASTIC	M.C.	LIQUID	COMMENTS	ELEVATION (m)
0		Clay (Fill) - trace sand and gravel, brown - stiff, frozen, medium to high plasticity							227
1		Clay (Alluvial) - silty, trace fine sand and oxidation - medium brown - stiff, moist - high plasticity (plasticity increases with depth)		G31					226
2		- mottled grey and brown below 2.1 m							225
3				G32					224
4									223
5		- no oxidation and dark grey below 4.9 m		G33					222
6				G34					221
7				G35					220
8									219
9		- trace oxidation and organics below 8.8 m		G36					218
10									217
11		- trace silt lenses (< 1 mm diam.) below 10.7 m		G37					216
12		Silt (Till) - trace to some sand and gravel, trace clay, grey - loose, dry, low plasticity END OF TEST HOLE AT 11.9 m IN SILT TILL		G38					215
13									214
14									213
15									212
16									211

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 11.89 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: TH-15
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 222.952
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 LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 7.62 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-16
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.75
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE



DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				228
1						
2						227
3						226
4		END OF TEST HOLE AT 3.0 m IN CLAY				225

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-17
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.75
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE




DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				228
1		Sand Bags				227
2						
3		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				226
4		END OF TEST HOLE AT 3.0 m IN CLAY				225

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-18
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.85
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE



DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				
		Sand Bags				
1		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				228
2		END OF TEST HOLE AT 1.5 m IN CLAY				227
3						226
4						225

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 1.52 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-19
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.85
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE




DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				
		Sand Bags				228
1						
		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				227
2						
3		END OF TEST HOLE AT 3.0 m IN CLAY				226
4						225

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 3.05 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-20
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.999
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE


DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				
		Sand Bags				
1		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				228
2		END OF TEST HOLE AT 1.5 m IN CLAY				227
3						226
4						

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 1.52 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: TH-21
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD: RM 30, 5 inch solid stem augers	ELEVATION (m): 228.999
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

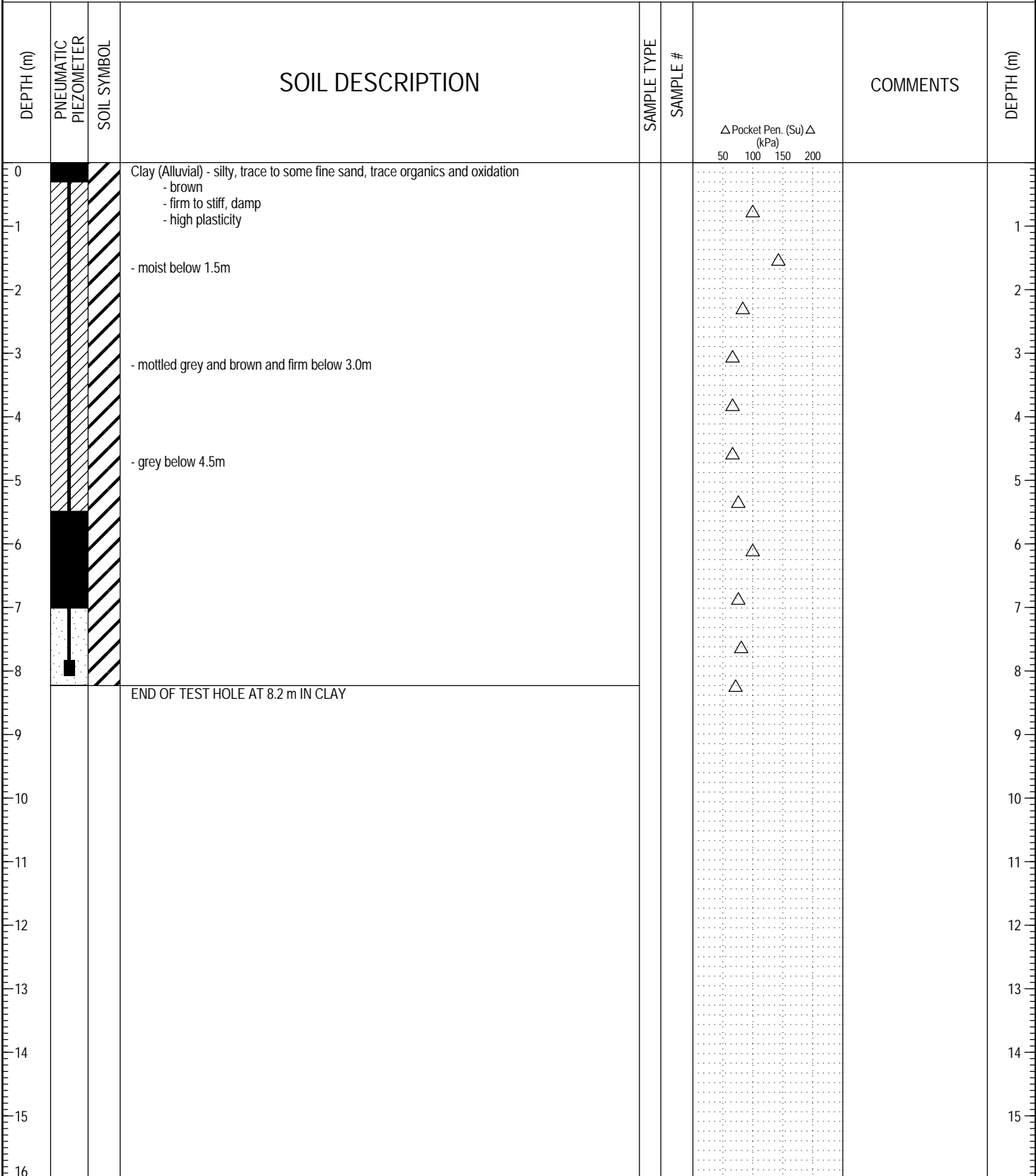
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		Clay (Alluvial) - silty, trace to some fine sand, trace organics and oxides - greyish brown - firm to stiff, moist - high plasticity				
1						228
2		END OF TEST HOLE AT 1.5 m IN CLAY				227
3						226
4						

LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 6/5/03



LOGGED BY: Nelson Ferreira	COMPLETION DEPTH: 1.52 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/7/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: P-21
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD:	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	
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	

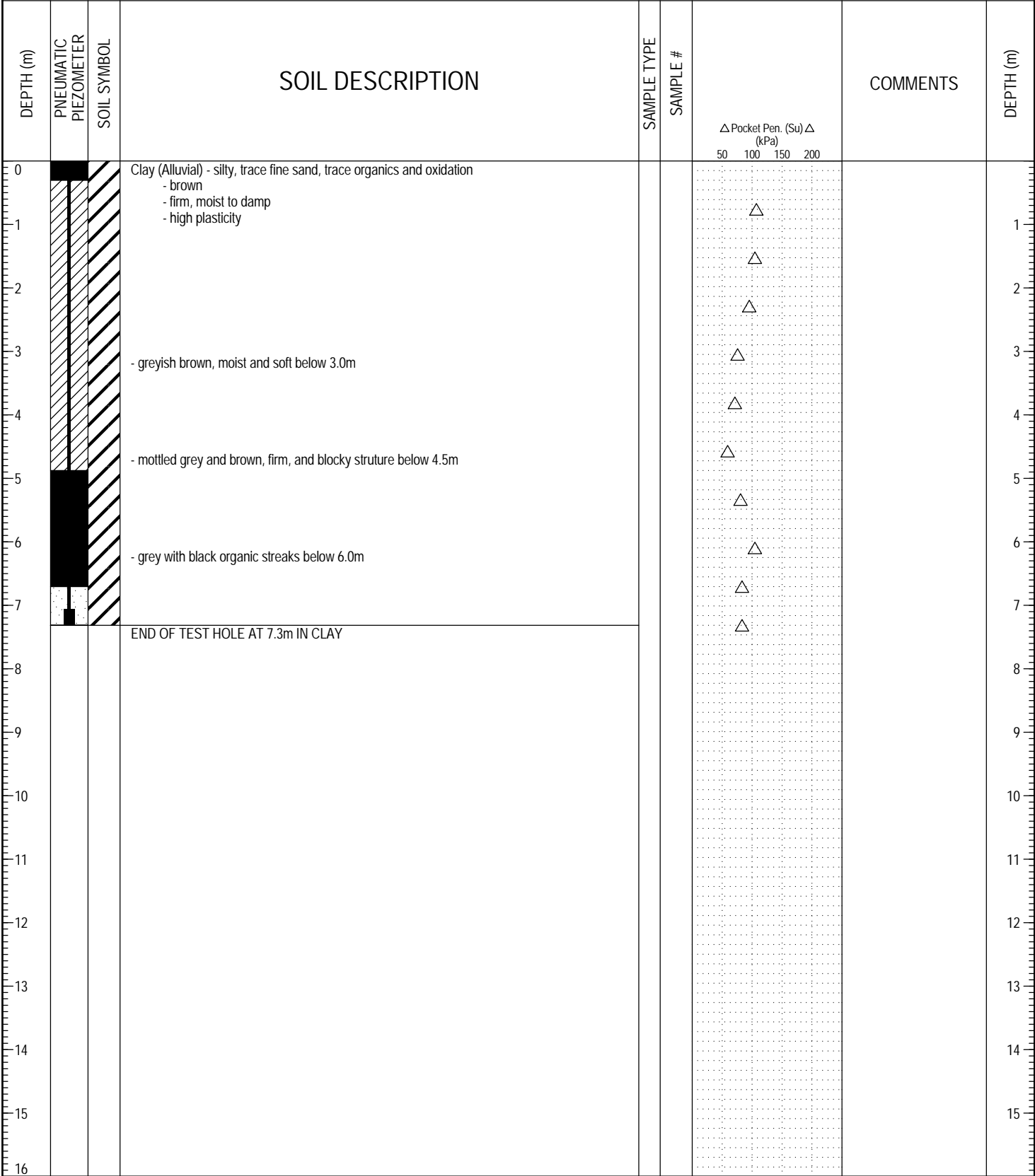


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 1/3/04



LOGGED BY: Jeff Tallin	COMPLETION DEPTH: 8.23 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 13/9/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: P-22
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD:	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
BACKFILL TYPE	<input type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

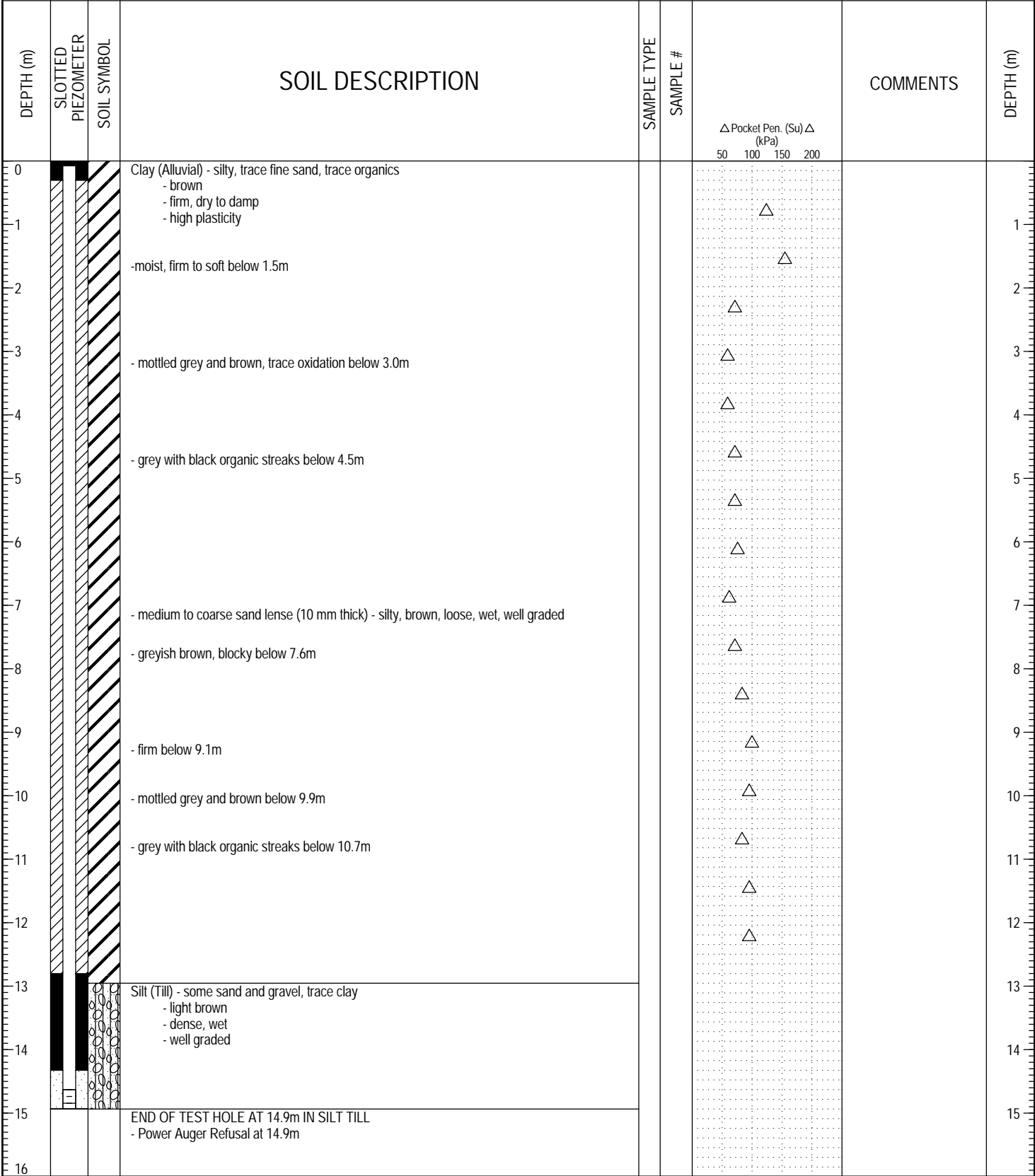


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 1/3/04



LOGGED BY: Jeff Tallin	COMPLETION DEPTH: 7.32 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 9/12/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SP-23
LOCATION:		PROJECT NO.: D265-147-04-03
CONTRACTOR: Paddock Drilling Ltd.	METHOD:	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		
BACKFILL TYPE <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND		

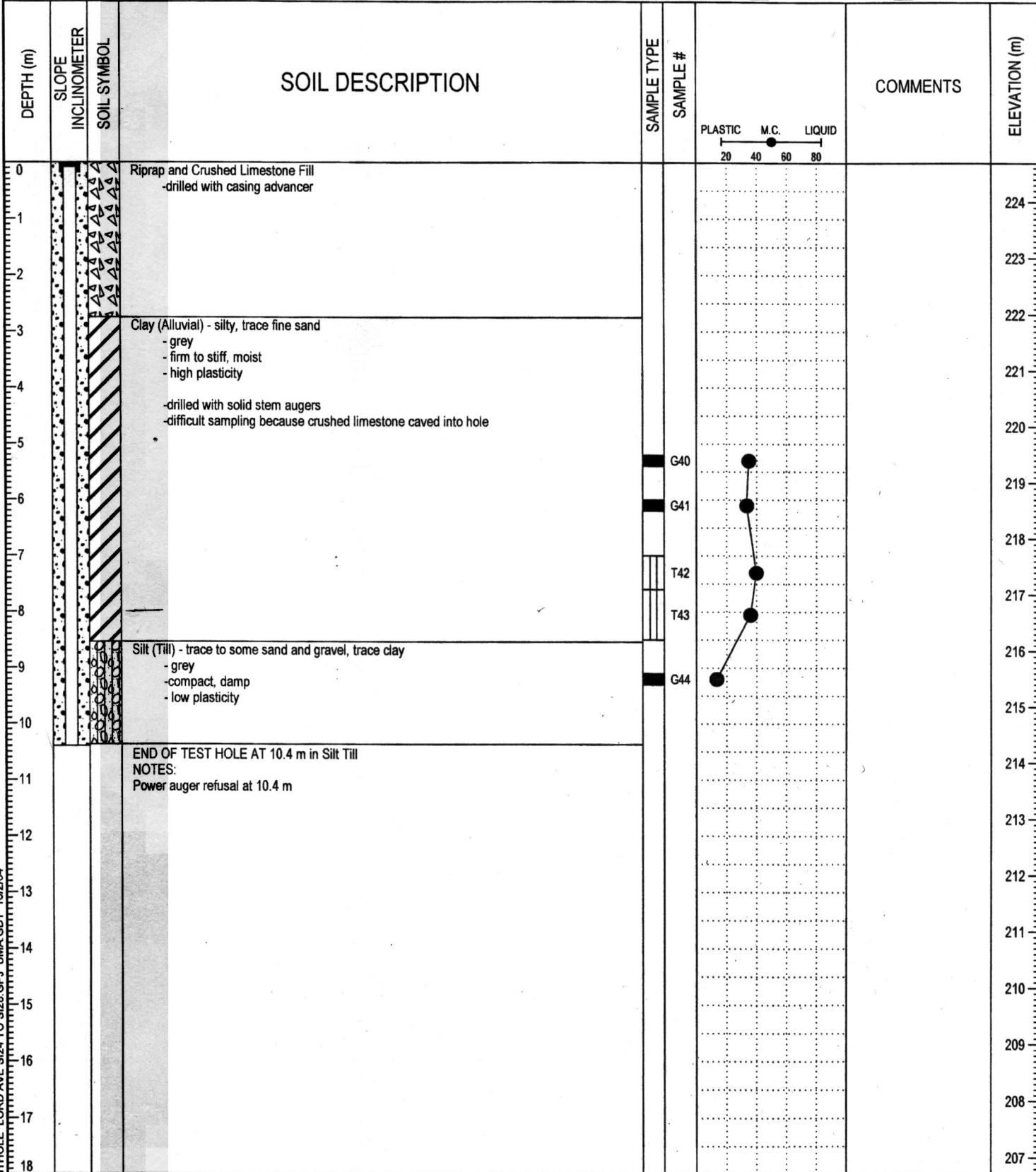


LOG OF TESTHOLE LORD AVENUE TH-7 TO TH-21.GPJ UMA GDT 1/3/04



LOGGED BY: Jeff Tallin	COMPLETION DEPTH: 14.94 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 13/9/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SI-24
LOCATION:		PROJECT NO.: D265-147-05
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS, csg advancer /solid stem augers	ELEVATION (m): 224.69
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT	<input checked="" type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND

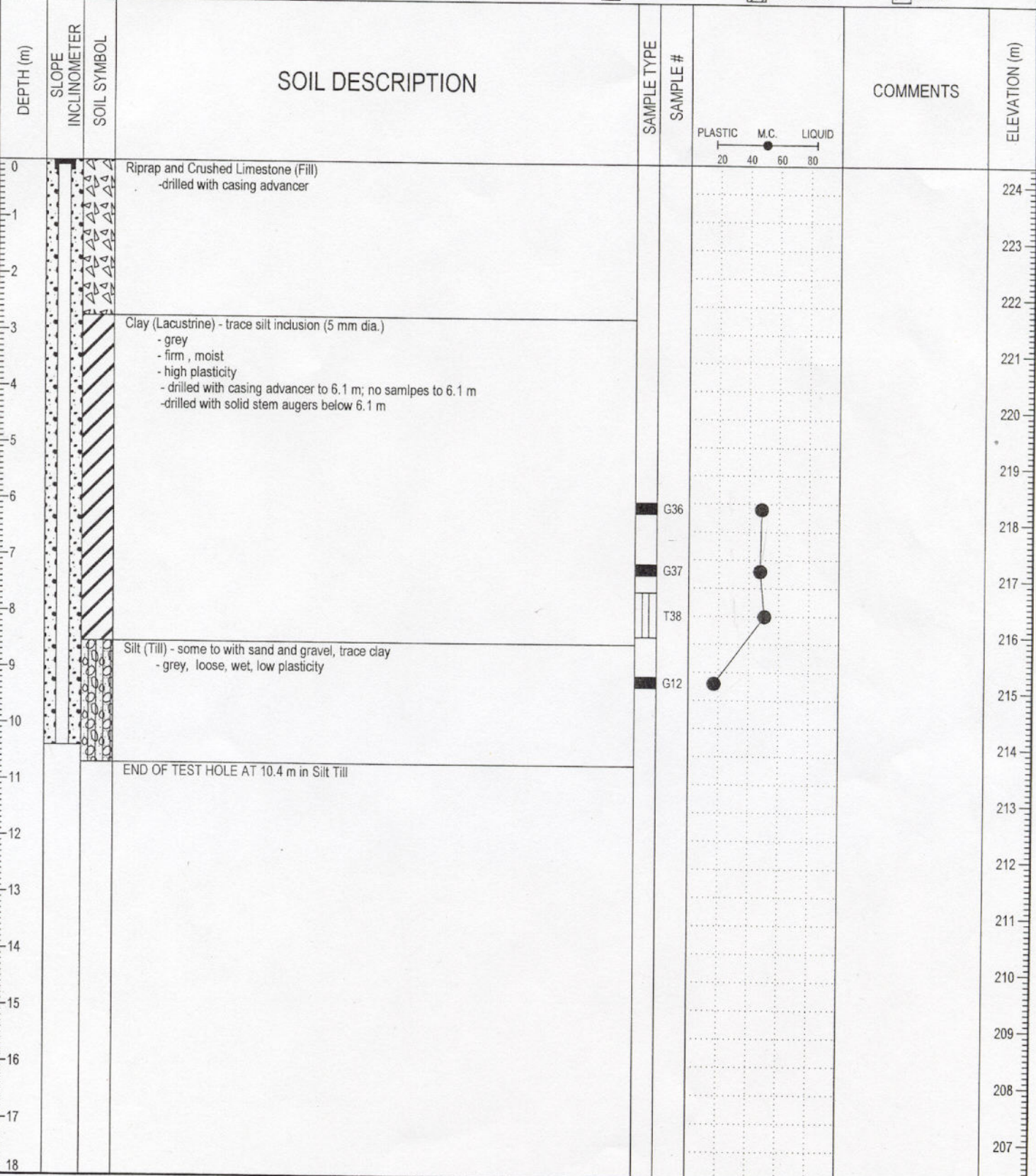


LOG OF TESTHOLE LORD AVE SI24 TO SI28.GPJ UMA.GDT 16/2/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 10.40 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/6/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

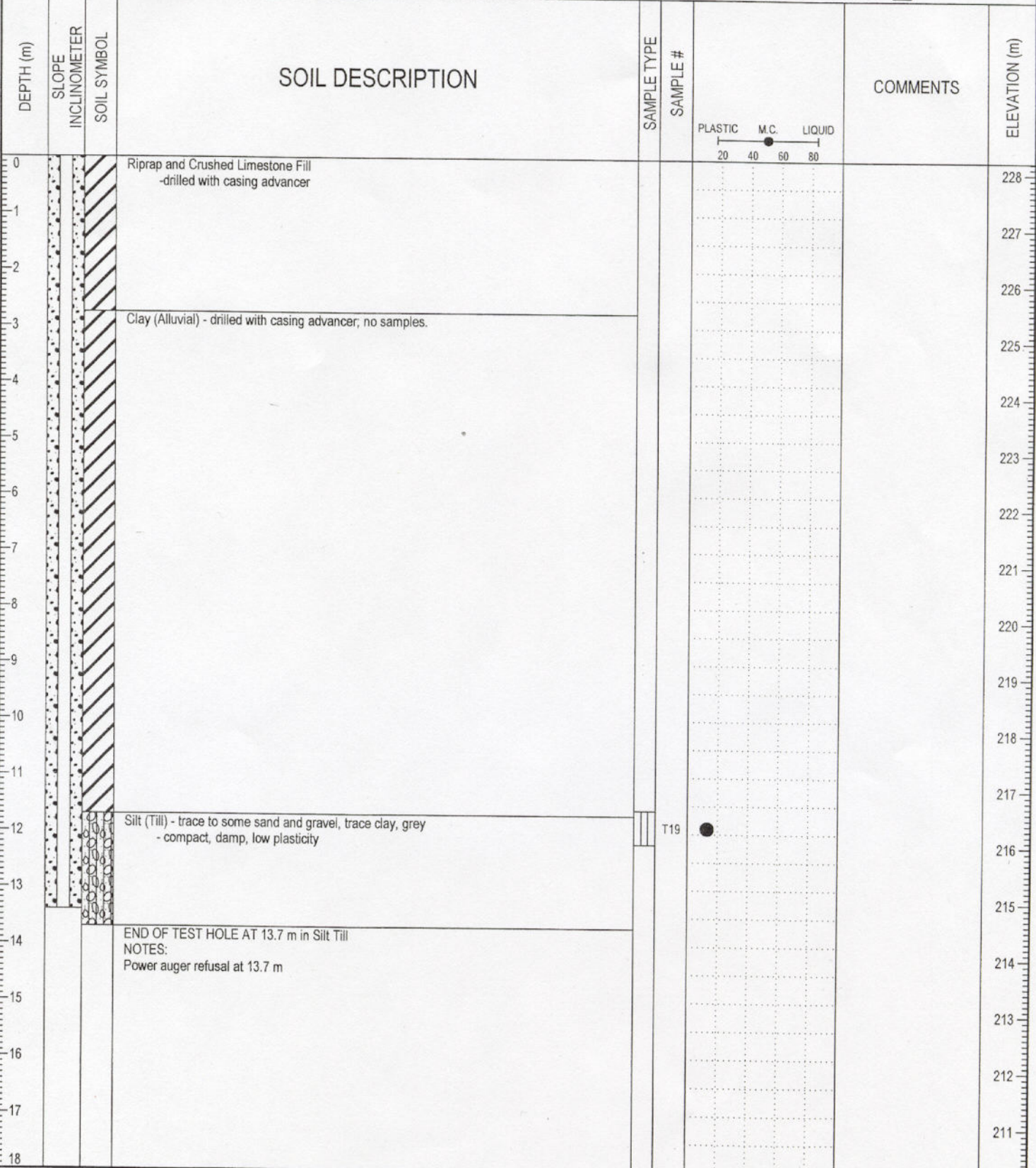
PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SI-25
LOCATION:		PROJECT NO.: D265-147-05
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS, csg advancer /solid stem augers	ELEVATION (m): 224.35
SAMPLE TYPE	<input type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input checked="" type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 10.70 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 3/6/03
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

LOG OF TESTHOLE LORD AVE S124 TO S128 GPJ UMA GDT 16/2/04

PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winniped Waterways Department	TESTHOLE NO: SI-26
LOCATION:		PROJECT NO.: D265-147-05
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS, csg advancer /solid stem augers	ELEVATION (m): 228.21
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	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	

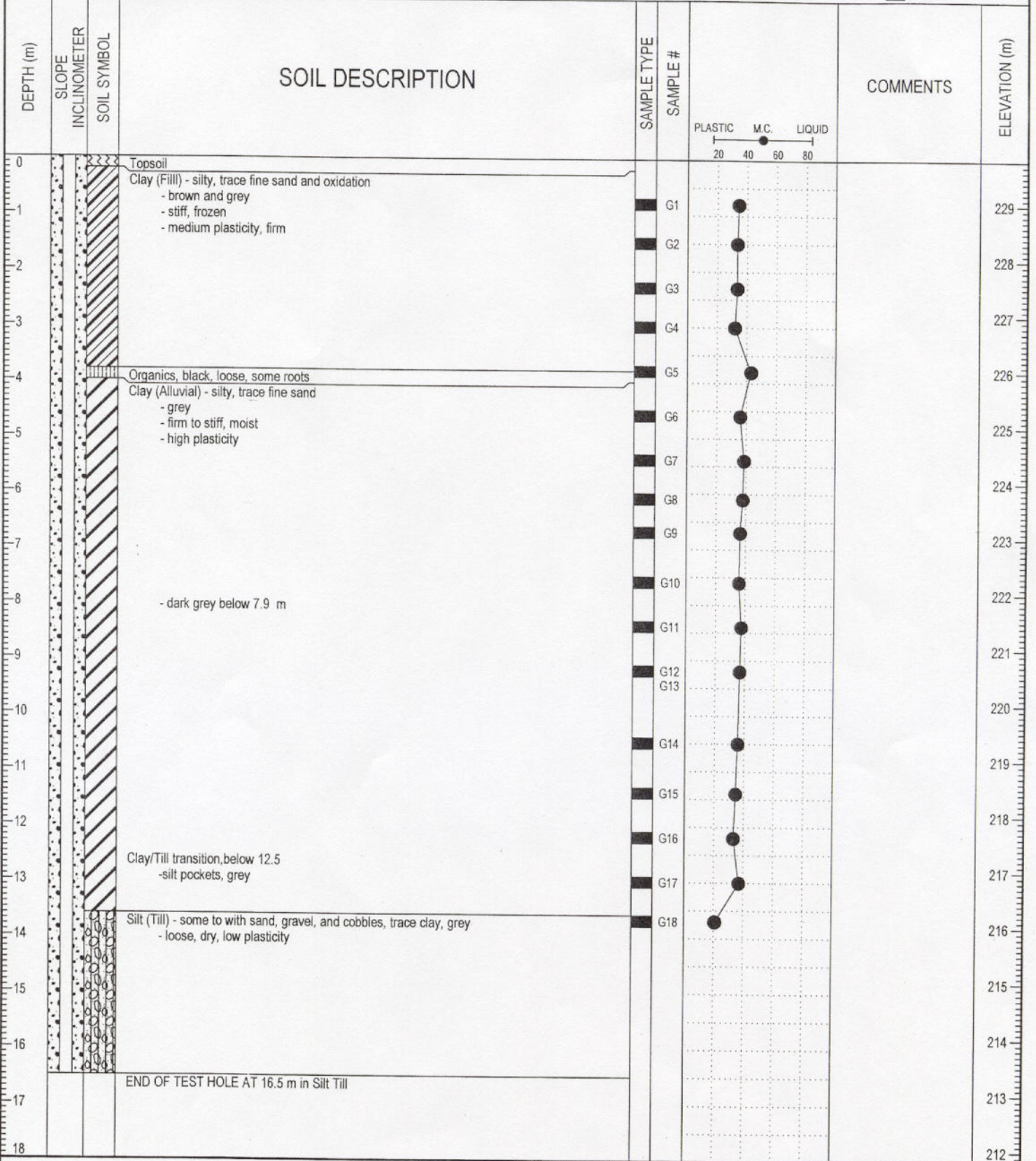


LOG OF TESTHOLE LORD AVE SI24 TO SI28.GPJ UMA.GDT 16/2/04



LOGGED BY: Darryl Schmit	COMPLETION DEPTH: 13.40 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 16/1/04
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

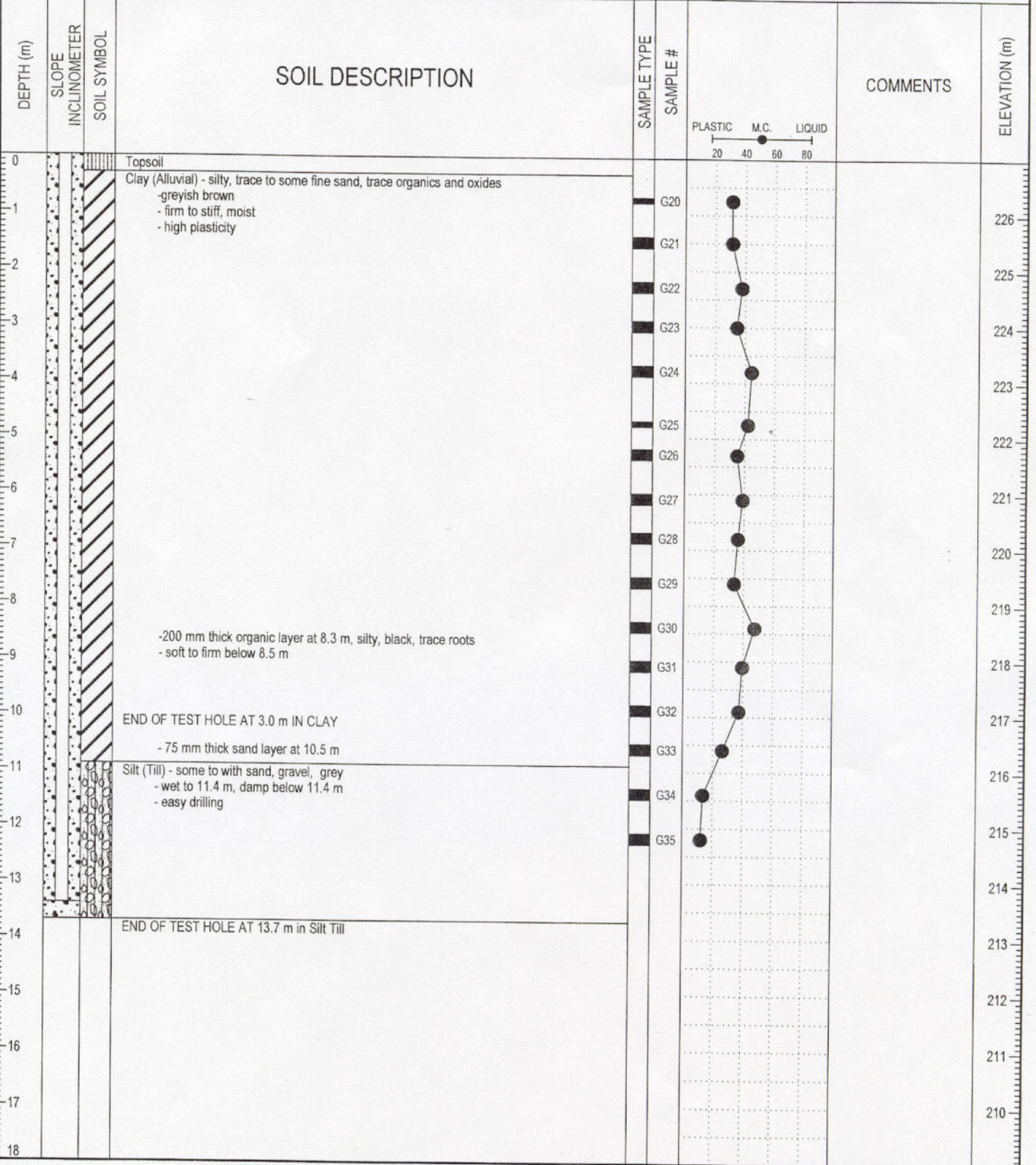
PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: SI-27
LOCATION:		PROJECT NO.: D265-147-05
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS, solid stem augers	ELEVATION (m): 229.8
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input checked="" type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK <input type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	



LOG OF TESTHOLE LORD AVE S124 TO S128 GPJ UMA GDT 16/2/04



PROJECT: Lord Avenue Community Ring Dyke	CLIENT: City of Winnipeg Waterways Department	TESTHOLE NO: SI-28
LOCATION:		PROJECT NO.: D265-147-05
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker SS, solid stem augers	ELEVATION (m): 227
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	
BACKFILL TYPE	<input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> GRAVEL <input type="checkbox"/> SLOUGH <input type="checkbox"/> GROUT <input type="checkbox"/> CUTTINGS <input type="checkbox"/> SAND	



LOG OF TESTHOLE LORD AVE S124 TO S128 GPJ UMA GDT 16/22/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 13.70 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 19/1/04
PROJECT ENGINEER: Jeff Tallin	

PROJECT: LORD AVE COMMUNITY RING DIKE	CLIENT: CITY OF WINNIPEG, WWD	TESTHOLE NO: TH-29
LOCATION:		PROJECT NO.: D265 147 05
CONTRACTOR: Subterranean	METHOD: Soil Mec Piling Drill Rig	ELEVATION (m): 224.8
SAMPLE TYPE	<input checked="" type="checkbox"/> GRAB <input type="checkbox"/> SHELBY TUBE <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> BULK	<input checked="" type="checkbox"/> NO RECOVERY <input type="checkbox"/> CORE

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0		LIMESTONE RIPRAP, 300 mm dia				
0		CRUSHED LIMESTONE, 150 mm down, compacted, well graded			-36" dia open hole to 4.5 m -set 36" casing to 4.5 m -30" open hole 4.5 m to 8.0 m -set 30" casing to 7.4 m,	224
1						223
2		CLAY (Alluvial) - silty, trace organics seam - grey - stiff, moist - high plasticity - poorly defined bedding planes				222
3						221
4						220
5						219
6						218
7						217
8		CLAY (Lacustrine) - silty - grey/olive grey - stiff, moist - high plasticity			-down hole inspection of clay till contact by JET -thin (few mm thick) soft layer on shaft wall at 7.8 m	216
9		SILT (Till) - some sand, gravel, trace cobbles, trace boulders, trace clay - grey - compact, moist - low plastic - dense below 9.6m				215
10					- boulders chopped below 9.6 m -casing set at 9.7 m and open hole below 9.7 m -chopped dense till below 10.5 m	214
11						213
12		End of hole at 11.5 m -trace of seepage at 5.1 m which ceased when drilled below -no caving while drilling open hole - test hole backfilled to 5.2m depth below grade with lean mix concrete, the remaing portion of test hole backfilled with drill cuttings				212
13						211
14						210
15						209
16						209

LOG OF TESTHOLE LORD AVENUE S124 TO S1 28.GPJ UMA GDT 1/3/04



LOGGED BY: Jeff Tallin	COMPLETION DEPTH: 11.50 m
REVIEWED BY: Jeff Tallin	COMPLETION DATE: 27/2/04
PROJECT ENGINEER: Jeff Tallin	Page 1 of 1

CLIENT CANADA, MANITOBA, CITY OF WINNIPEG
PROJECT COMMUNITY RING DIKE PROJECT
SITE LORD AVENUE
LOCATION Top of Bank, Southeast of #48 Lord Avenue, See Dwg. 99-107-05 42, N 5,514,385.7, E 633,862.7 m
DRILLING METHOD 180 mm Hollow Stem Auger

JOB NO. 99-107-05
GROUND ELEV. 229.29 m, Geodetic
TOP OF PVC ELEV.
WATER ELEV. 224.72 m (See Note 1)
DATE DRILLED 16/02/00 17/02/00

ELEV. (m)	DEPTH (m)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	PIEZ. LOG	DEPTH (m)	SAMPLE NUMBER	RECOVERY %	Cu from Unconfined Comp. Test (kPa) ◇	Cu TORVANE (kPa) ◆
			ALLUVIAL SILTY CLAY (CI-CH) - Dark brown, moist, firm, intermediate to high plasticity, trace fine to coarse grained sand, trace fine grained gravel, trace organic matter. -frozen to 1.2 m depth		0.61				
	1		-no sample retrieved between 1.22 and 1.83 m			1			
	2		-very stiff between 1.83 and 3.05 m			2	21		>90
	3		-mottled light and dark brown, trace fine to medium grained sand between 2.44 and 3.05 m			3	25		>90
	4		-dark brown, firm to stiff, trace fine grained sand between 3.05 and 6.7 m -some bones between 3.05 and 3.65 m -trace oxidation between 3.65 and 4.27 m		3.05	4	50		
	5		-intermediate plasticity between 4.27 and 6.1 m -trace organic matter between 4.27 and 4.88 m		3.66	5	100		
	6		-intermediate to high plasticity, trace silt inclusions (<1 mm ø) below 4.88 m -trace oxidation between 4.88 and 11.6 m		5.33	6	100		
	7		-trace rootlets, blocky structure at 6.5 m -trace medium grained sand between 6.7 and 7.3 m -dark grey between 6.7 and 8.53 m -stiff between 6.7 and 11.6 m		5.64	7	29		
	8		-trace fine grained sand between 7.3 and 12.8 m			8	67		
	9		-very stiff between 8.53 and 9.14 m -mottled black and grey below 8.53 m			9	58		
			-silt inclusions <2 mm ø between 9.15 and 9.75 m			10	37		
						11	79		
						12	37		
						13	83		>90
						14	100		

SAMPLE TYPE AUGER GRAB SPLIT BARREL SHELBY

CONTRACTOR Paddock Drilling Ltd. INSPECTOR A. PROSKIN

APPROVED BK DATE 28/11/00

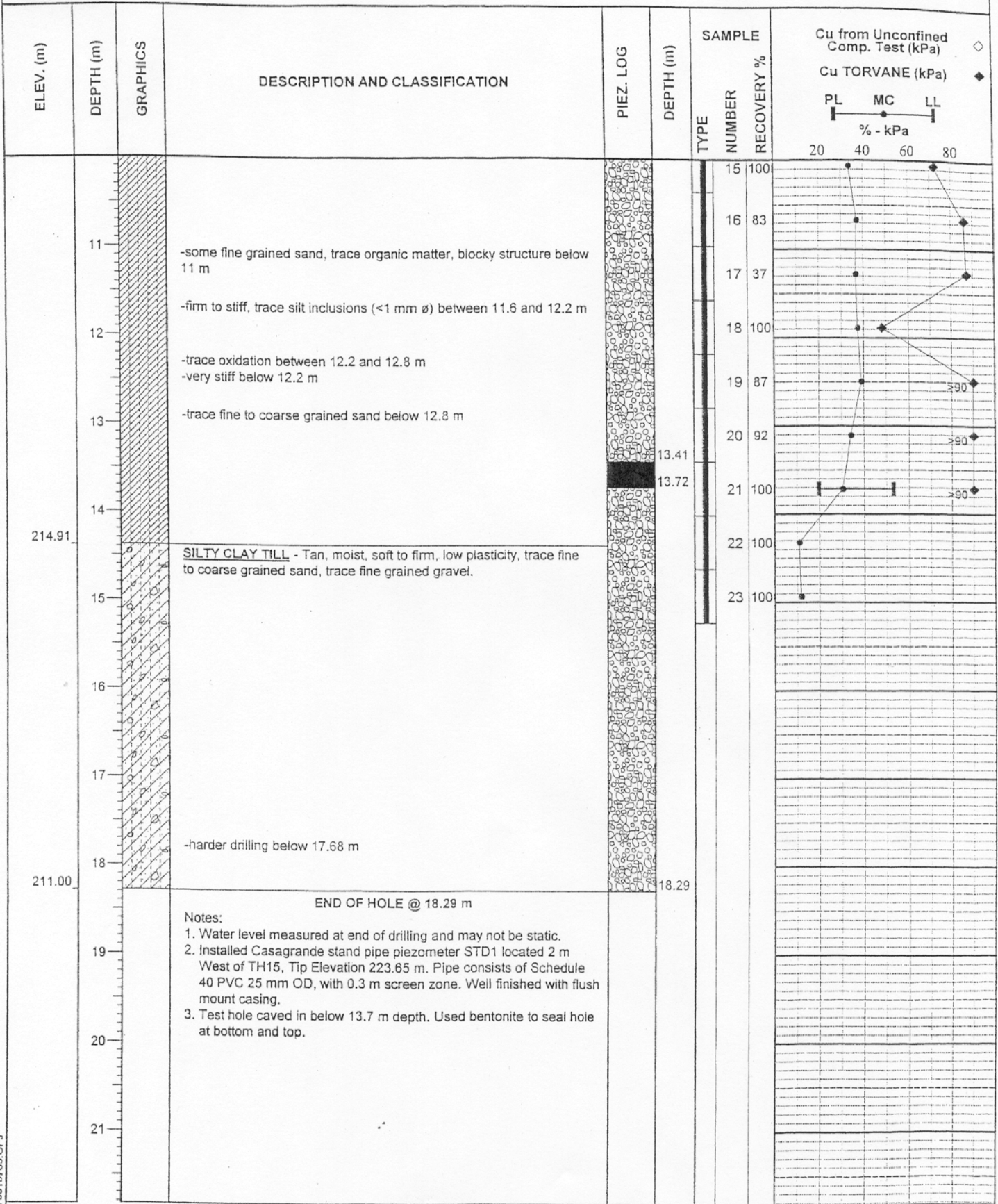
CLIENT CANADA, MANITOBA, CITY OF WINNIPEG
PROJECT COMMUNITY RING DIKE PROJECT
SITE LORD AVENUE
LOCATION Top of Bank, North of #4 Lord Avenue, See Dwg. 99-107-05 42, N 5,514,740.3, E 633,841.7 m
DRILLING METHOD 180 mm Hollow Stem Auger

JOB NO. 99-107-05
GROUND ELEV. 229.51 m, Geodetic
WATER ELEV. 223.72 m (See Note 1)
DATE DRILLED 17/02/00 18/02/00

ELEV. (m)	DEPTH (m)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	SAMPLE TYPE	NUMBER	RECOVERY %	Cu from Unconfined Comp. Test (kPa) \diamond	Cu TORVANE (kPa) \blacklozenge	PL	MC	LL
	1	[Hatched]	ALLUVIAL SILTY CLAY (CI) - Brown, moist, intermediate plasticity, trace fine to medium grained sand, trace organic matter to 2.44 m depth. -frozen to 1.2 m depth	[Wavy]	1						
	2	[Hatched]	-no sample retrieved between 1.22 and 1.83 m -mottled light and dark brown, firm between 1.83 and 3.05 m -trace fine grained sand, trace silt inclusions (<3 mm ϕ) between 1.83 and 3.22 m	[Solid]	2	12					
	3	[Hatched]	-brown below 3.05 m -intermediate to high plasticity, stiff between 3.05 and 3.22 m -silty sand seam (5 mm thick), brown, moist, fine grained at 3.22 m -low plasticity, some fine grained sand between 3.3 and 3.65 m -firm below 3.3 m	[Solid]	3	8					
	4	[Hatched]	-intermediate plasticity, trace fine grained sand, trace silt inclusions (<3 mm ϕ) between 3.65 and 3.8 m -low plasticity, with fine grained sand between 3.8 and 4.27 m -low to intermediate plasticity, some fine grained sand between 4.27 and 4.93 m -silty sand seam (3 mm thick), brown, moist, compact, fine grained at 4.52 m	[Solid]	4	42					
	5	[Hatched]	-low plasticity, with fine grained sand below 4.93 m -silty sand seam, brown, moist, compact, fine grained, trace medium grained between 5.0 and 5.08 m	[Solid]	5	29					
224.02	6	[Dotted]	SILTY SAND (SM) - Brown, wet, loose, poorly graded, fine grained. -some water infiltration	[Solid]	6	79					
223.41	7	[Hatched]	ALLUVIAL SILTY CLAY (CI) - Mottled light and dark brown, moist, firm to stiff, intermediate plasticity, some fine grained sand, trace oxidation. -silty sand layer, brown, wet, loose, fine grained between 6.3 and 6.4 m -silty sand layers, wet, loose, fine grained from 6.7 to 6.93 m and from 7.24 to 7.29 m -mottled black, grey and brown, stiff, intermediate to high plasticity, trace fine grained sand below 6.93 m	[Wavy]	7	33					
221.71	8	[Dotted]	SILTY SAND (SM) - Grey, wet, loose, poorly graded, fine grained. -top of silty sand layer approximated, as part of sample was washed out -some water infiltration	[Solid]	8	75					
220.98	9	[Hatched]	ALLUVIAL SILTY CLAY (CI-CH) - Grey, moist, firm, intermediate to high plasticity, trace fine grained sand. -silty sand layers, grey, wet, loose, fine grained from 8.81 to 8.91 m, from 9.04 to 9.09 m and from 9.27 to 9.32 m -low plasticity, some fine grained sand between 9.32 and 10 m	[Wavy]	9	50					
	10	[Hatched]		[Wavy]	10	100					
	11	[Hatched]		[Wavy]	11	62					
	12	[Hatched]		[Wavy]	12	75					
	13	[Hatched]		[Wavy]	13	67					
	14	[Hatched]		[Wavy]	14	79					

GENERAL FT. M 9910702

SAMPLE TYPE AUGER GRAB SPLIT BARREL SHELBY
 CONTRACTOR Paddock Drilling Ltd. INSPECTOR A. PROSKIN
 APPROVED RK DATE 28/11/00



Notes:

1. Water level measured at end of drilling and may not be static.
2. Installed Casagrande stand pipe piezometer STD1 located 2 m West of TH15, Tip Elevation 223.65 m. Pipe consists of Schedule 40 PVC 25 mm OD, with 0.3 m screen zone. Well finished with flush mount casing.
3. Test hole caved in below 13.7 m depth. Used bentonite to seal hole at bottom and top.

GENERAL FT. M 9910705.GPJ

SAMPLE TYPE AUGER GRAB SPLIT BARREL SHELBY

CONTRACTOR **Paddock Drilling Ltd.** INSPECTOR **A. PROSKIN**

APPROVED RK DATE 28/11/00

ELEV. (m)	DEPTH (m)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	TYPE	SAMPLE NUMBER	RECOVERY %	Cu from Unconfined Comp. Test (kPa)		
							PL	MC	LL
							% - kPa		
	11		-mottled black and grey, stiff, intermediate to high plasticity, trace fine grained sand between 10 and 10.36 m -grey, soft, low plasticity between 10.36 and 10.67 m -some fine grained sand below 10.36 m -mottled black and grey between 10.67 and 12.8 m -soft to firm, intermediate plasticity between 10.67 and 11.23 m -trace organic matter between 10.97 and 11.23 m -stiff, high plasticity between 11.23 and 12.8 m -Grain Size Distribution: 18% sand, 35.9% silt, 46.1% clay at 11.3 m		15	83			
	12				16	71			
	13		-grey below 12.8 m -firm to stiff, some fine grained sand seams (3 mm thick) between 12.8 and 13.41 m -low plasticity, with fine grained sand between 12.8 and 13.1 m -intermediate plasticity between 13.1 and 13.41 m -very stiff, trace organic matter (decayed wood), trace silt inclusions (1 mm ø) below 13.41 m		17	79			
	14		LACUSTRINE SILTY CLAY (CH) - Grey, moist, firm to stiff, high plasticity, trace silt inclusions (1-10 mm ø), several slickensided surfaces throughout sample.		18	79			
215.51	14		SILTY CLAY TILL - Tan, moist, soft to firm, low plasticity, trace fine to coarse grained sand, trace fine grained gravel.		19	71			
215.11	15		SILT TILL - Tan, moist, dense, non plastic, some fine to coarse grained sand, trace fine to coarse gravel, trace clay.		20	100			
214.31	16				21	88			>90
	17		AUGER REFUSAL @ 16.76 m		22	71			
	18		Notes: 1. Water level measured at end of drilling and may not be static. 2. Test hole caved below 6.1 m depth after removal of augers.		23	17			
	19				24	29			
	20				25	33			

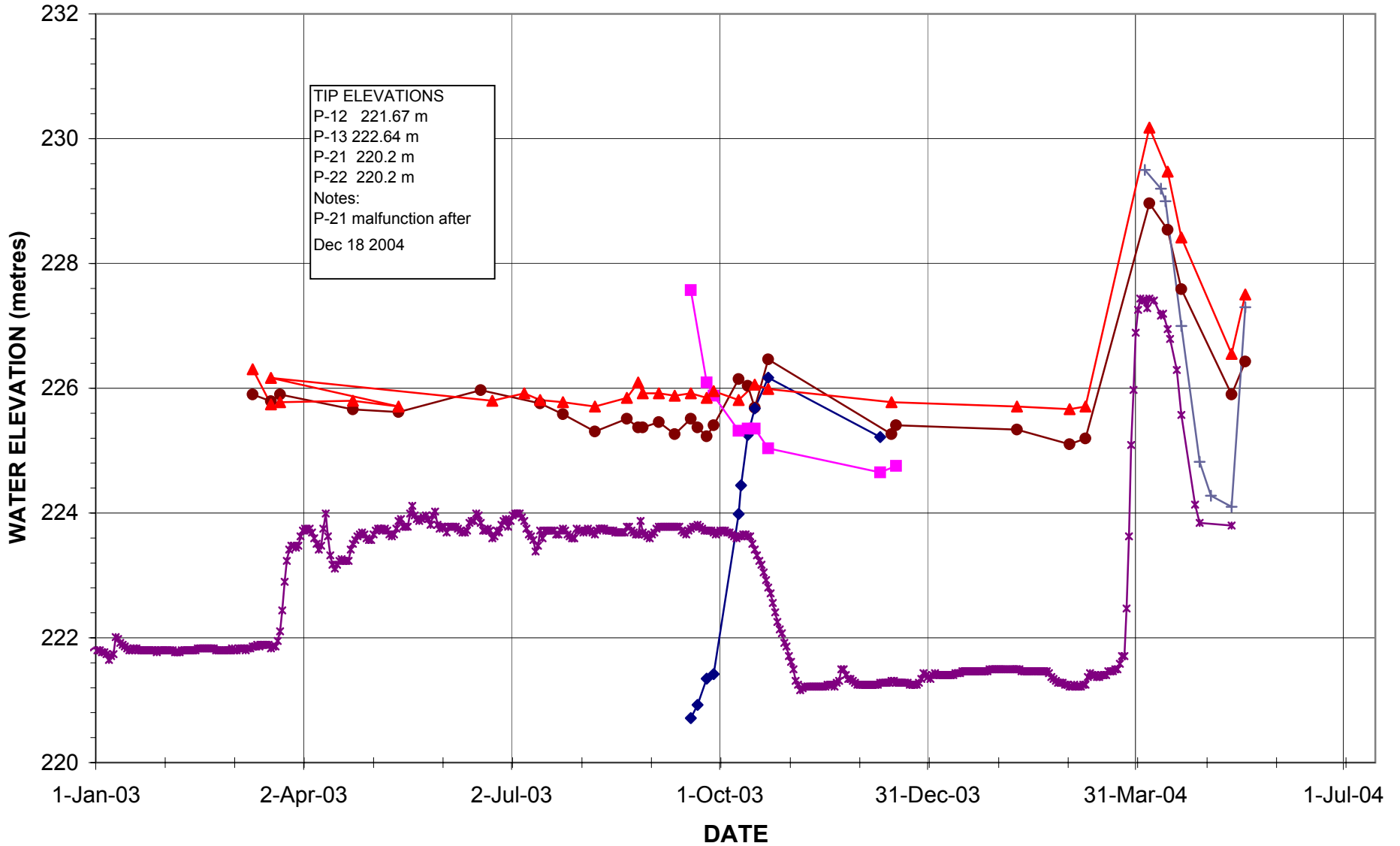
GENERAL FT. M. 9910705 (Gr)

SAMPLE TYPE AUGER GRAB SPLIT BARREL SHELBY

CONTRACTOR Paddock Drilling Ltd. INSPECTOR A. PROSKIN

APPROVED *RKe* DATE 28/11/00

Lord Avenue Community Ring Dike Piezometers Below Dike

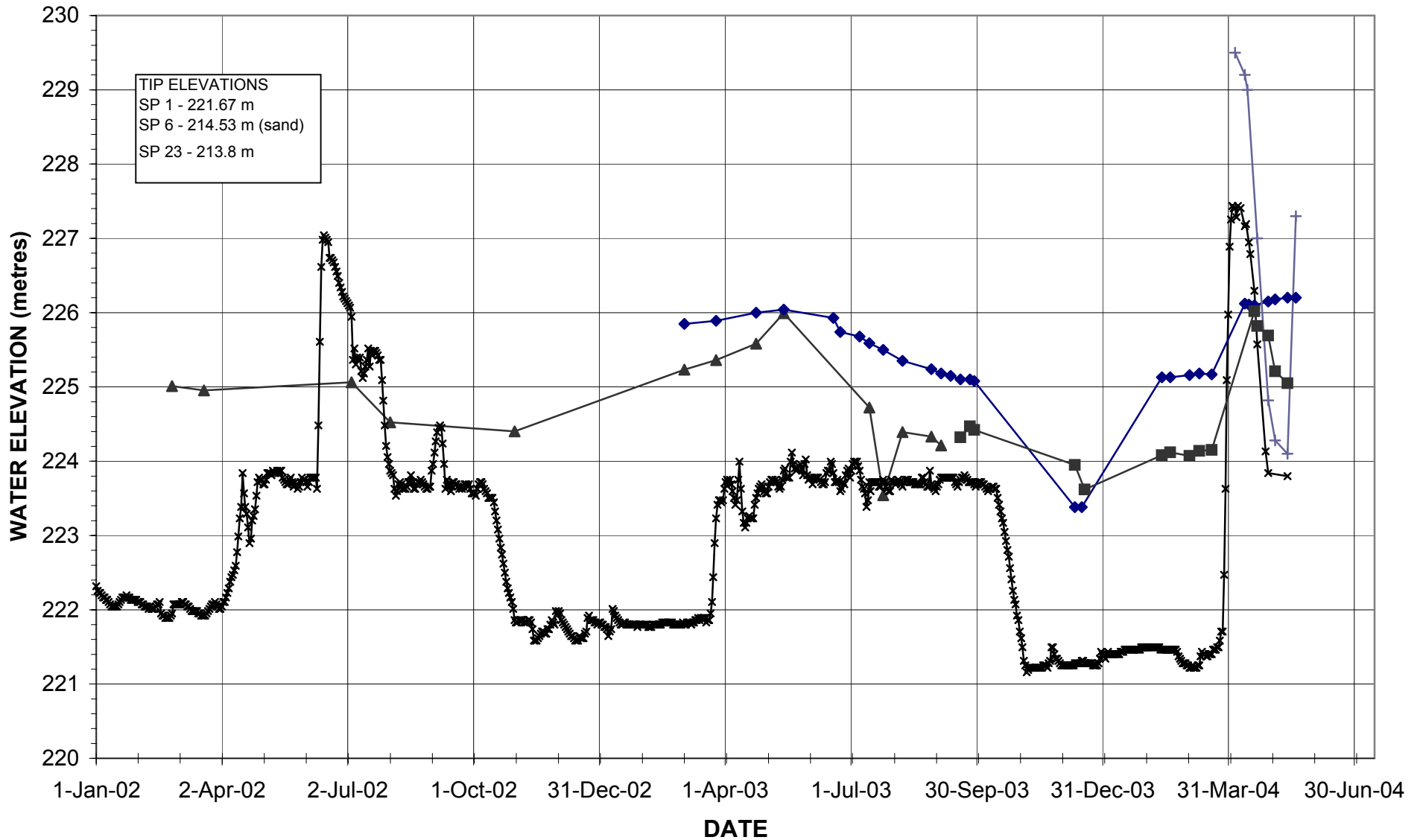


TIP ELEVATIONS
P-12 221.67 m
P-13 222.64 m
P-21 220.2 m
P-22 220.2 m
Notes:
P-21 malfunction after
Dec 18 2004

- P-12 Pneumatic (alluvial clay)
- ◆ P-21 Pneumatic (alluvial clay)
- P-22 Pneumatic (alluvial clay)
- ▲ P-13 Pneumatic (alluvial clay)
- + Lord Avenue
- * James Avenue

UMA ENGINEERING LTD.
CLIENT: THE CITY OF WINNIPEG
JOB No.: D265-147 04

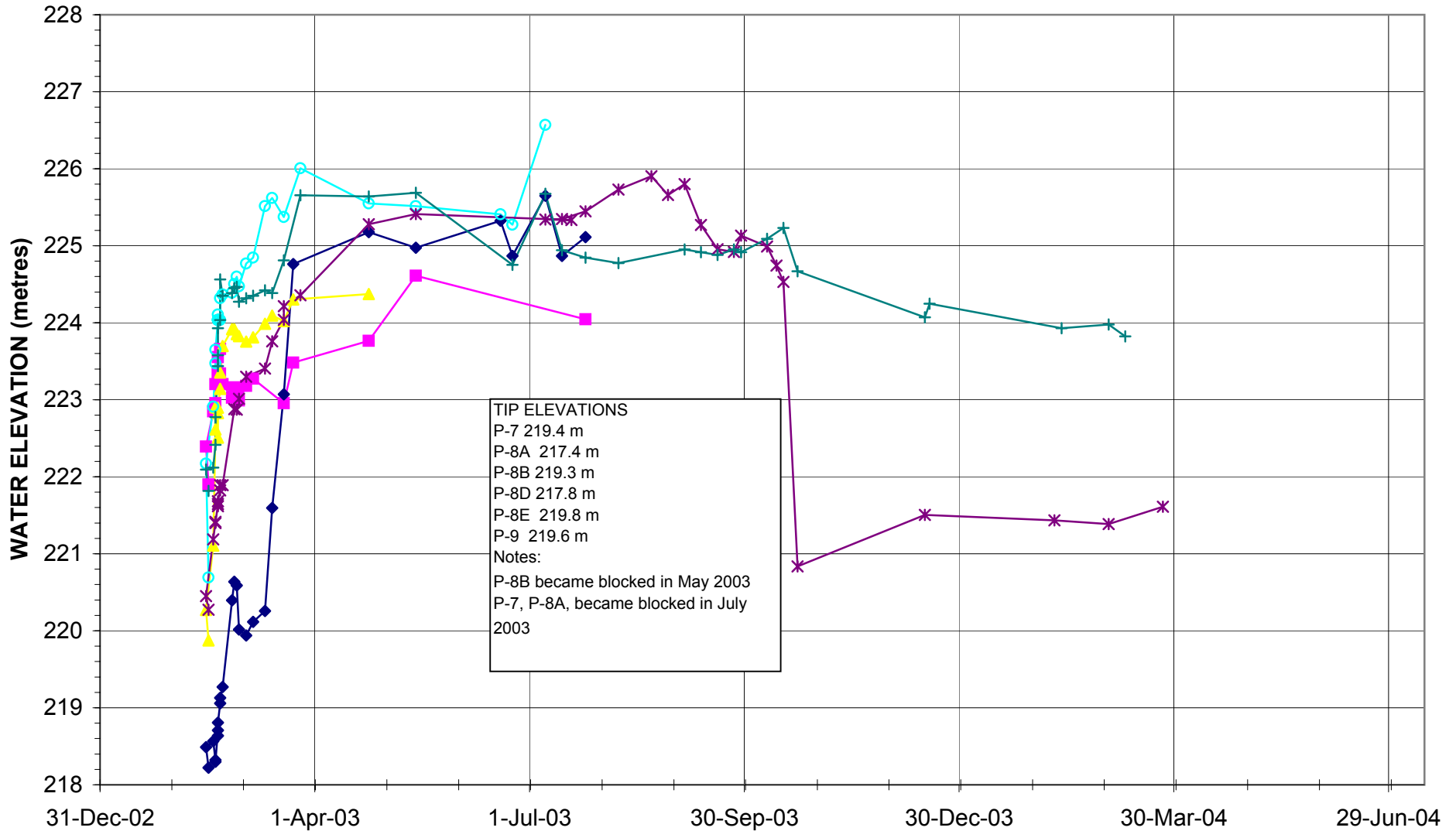
Lord Avenue Community Ring Dike Stand Pipe Piezometers



- ▲ TH-1 Standpipe (till)
- ◆ SP-6 Standpipe (alluvial sand)
- SP-23 Standpipe (Till)
- ✕ James Avenue
- ⊕ Lord Avenue

UMA ENGINEERING LTD.
 CLIENT: THE CITY OF WINNIPEG
 JOB No.: D265-147 04

Lord Avenue Community Ring Dike Peizometers Below Berm



- P-7 Pneumatic (alluvial clay)
- ◆ P-8A Pneumatic (alluvial clay)
- ▲ P-8B Pneumatic (alluvial clay)
- P-8D Pneumatic (alluvial clay)
- * P-8E Pneumatic (alluvial clay)
- + P-9 Pneumatic (lacustrine clay)

UMA ENGINEERING LTD.
CLIENT: THE CITY OF WINNIPEG
JOB No.: D265-147 04