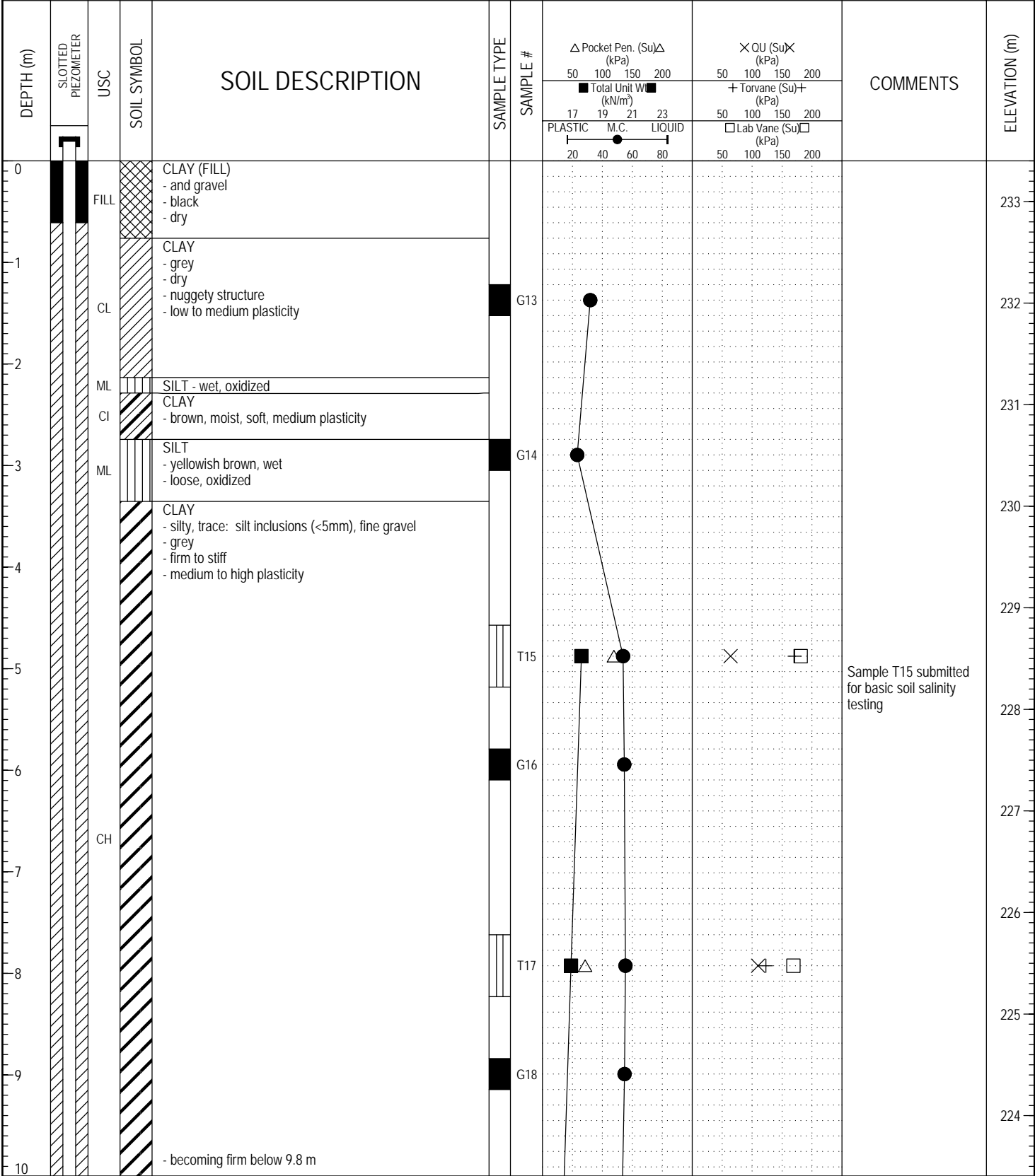


Appendix A

Test Hole Logs

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1
LOCATION: 10m east of Lagimodiere Blvd. Southside of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.401
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	

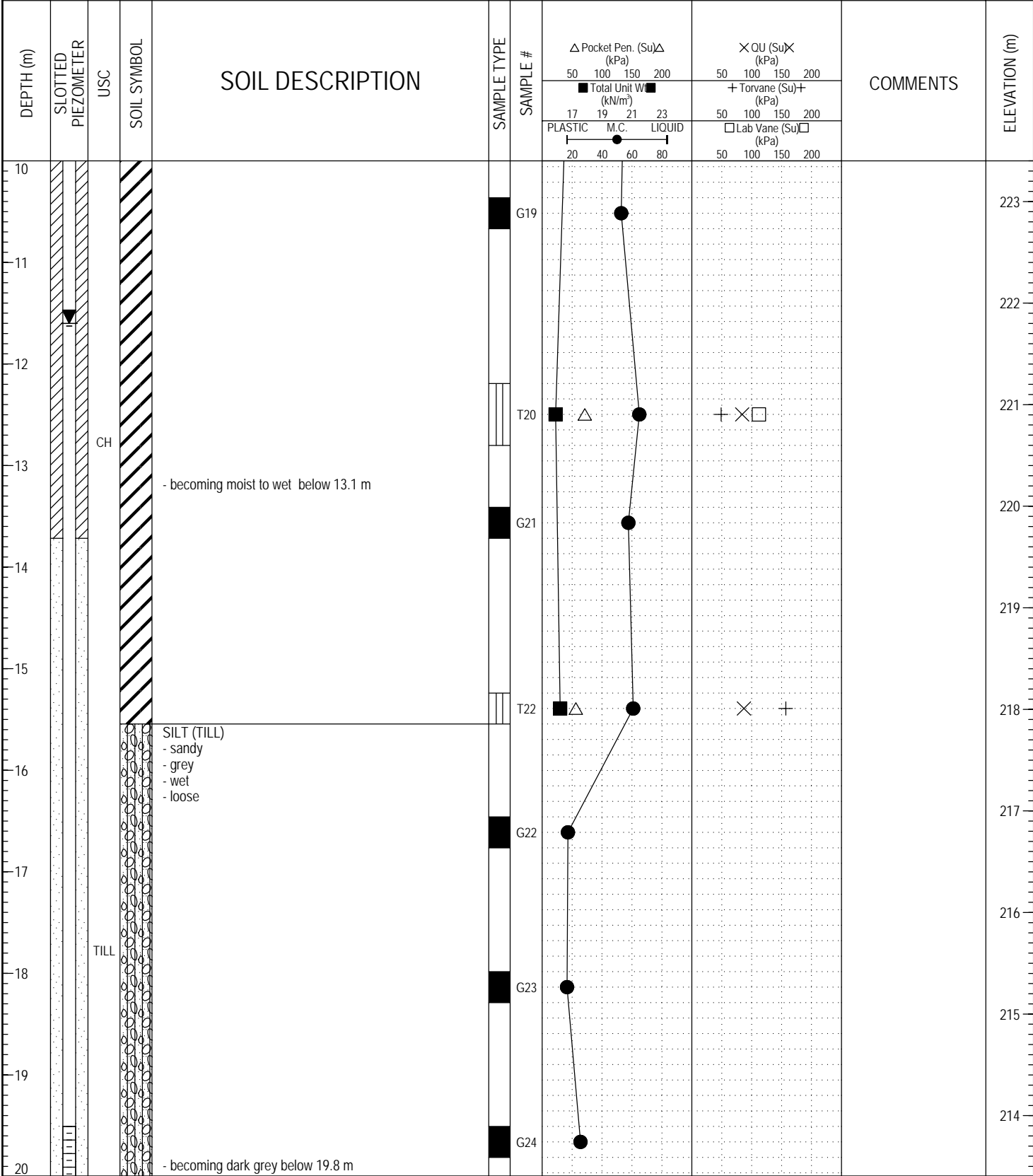


LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 21.34 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 1 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1
LOCATION: 10m east of Lagimodiere Blvd. Southside of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.401
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: Darryl Schmidt	COMPLETION DEPTH: 21.34 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 2 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1
LOCATION: 10m east of Lagimodiere Blvd. Southside of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.401
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	

DEPTH (m)	SLOTTED PIEZOMETER	USC	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	Δ Pocket Pen. (Su) Δ (kPa)		\times OU (Su) \times (kPa)		COMMENTS	ELEVATION (m)
							50	100	150	200		
20												213
21			TILL									212
22				END OF TEST HOLE AT 21.3 METRES IN SILT TILL - sloughing below 20.4 metres - some seepage from silt layers. Piezometric Elevations: 11 Nov 2003: 221.95 m 28 Nov 2003: 222.13 m								211
23												210
24												209
25												208
26												207
27												206
28												205
29												204
30												204

LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04



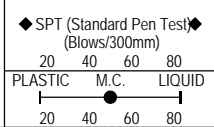
LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 21.34 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 3 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1A
LOCATION: 2m west of TH-1		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra c/w 125mm solid stem augers.	ELEVATION (m): 233.401

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

DEPTH (m)	USC	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	SPT (N)	COMMENTS	ELEVATION (m)
0								233
0	FILL		CLAY (fill) - frozen to 0.9m - black to dark brown					
1	CL		CLAY - brown, moist, soft - medium plasticity					232
2	ML		SILT - yellowish brown, wet					231
3	CI		CLAY - brown, moist, medium plasticity - trace silt inclusions (5mm diameter)					230
3	ML		SILT - yellowish brown, wet, loose, oxidized					229
4			CLAY - silty - grey, moist, firm to stiff - medium to high plasticity - trace silt inclusions					228
5								227
6	CH							226
7			- firm below 7.3m					225
8								224
9								
10								

LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04

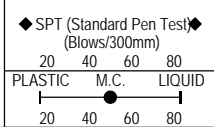


LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 25.91 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 12/3/04
PROJECT ENGINEER: Gil Robinson	Page 1 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1A
LOCATION: 2m west of TH-1		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra c/w 125mm solid stem augers.	ELEVATION (m): 233.401
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)	USC	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	SPT (N)	COMMENTS	ELEVATION (m)
10								223
11			- becoming soft to firm and wet with depth					222
12								221
13	CH		- trace till inclusions (3mm diameter) at 13m					220
14								219
15			- 100mm diameter till inclusion at 14.9m					218
16								217
17			SILT (till) - some sand, trace to some 20mm diameter gravel - grey, wet, compact					216
18	TILL			S1	15	15		215
19			- some gravel at 19m	S2	22	22		214
20								

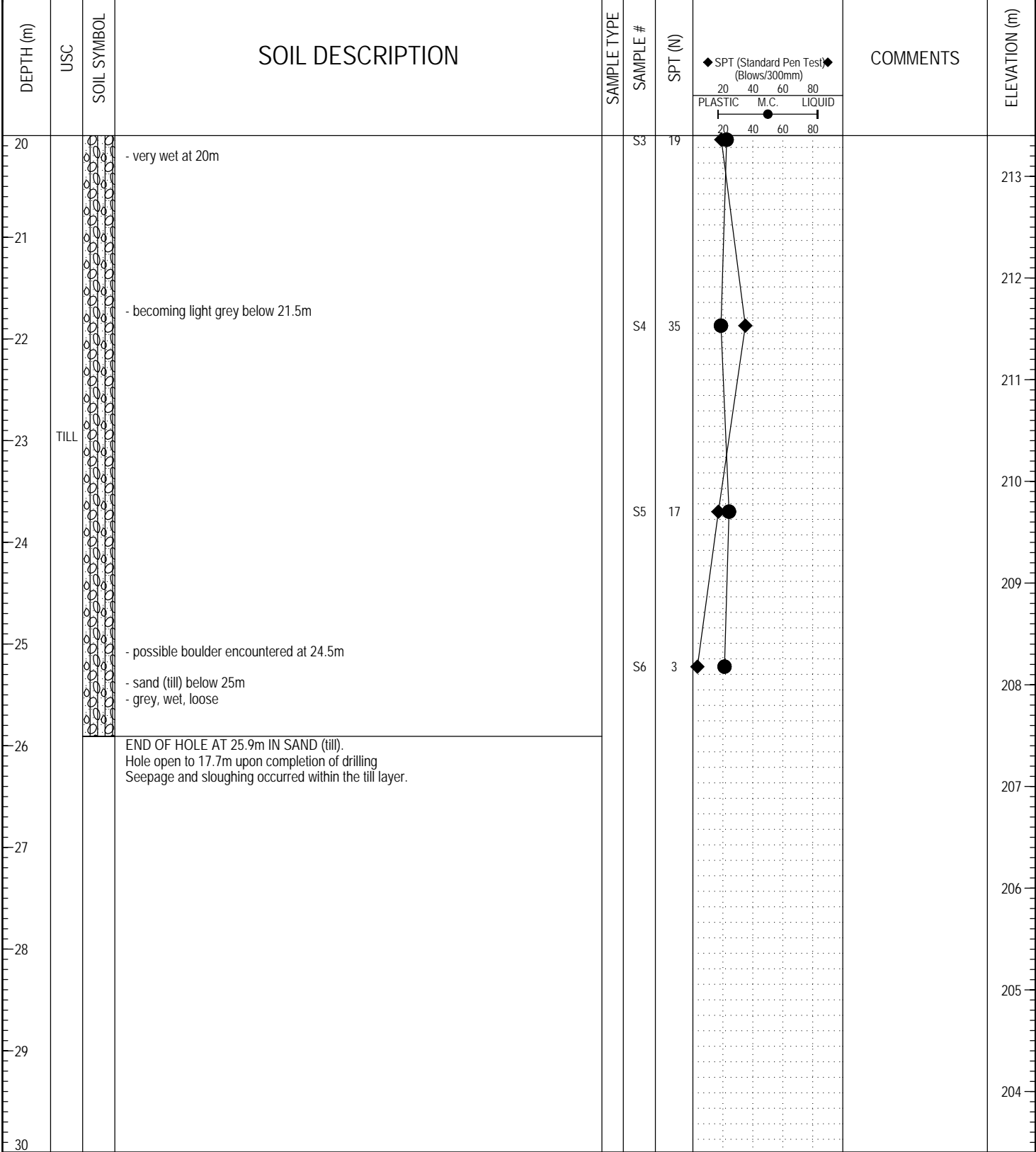
LOG OF TESTHOLE BRIIWA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 25.91 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 12/3/04
PROJECT ENGINEER: Gil Robinson	Page 2 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-1A
LOCATION: 2m west of TH-1		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Canterra c/w 125mm solid stem augers.	ELEVATION (m): 233.401

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

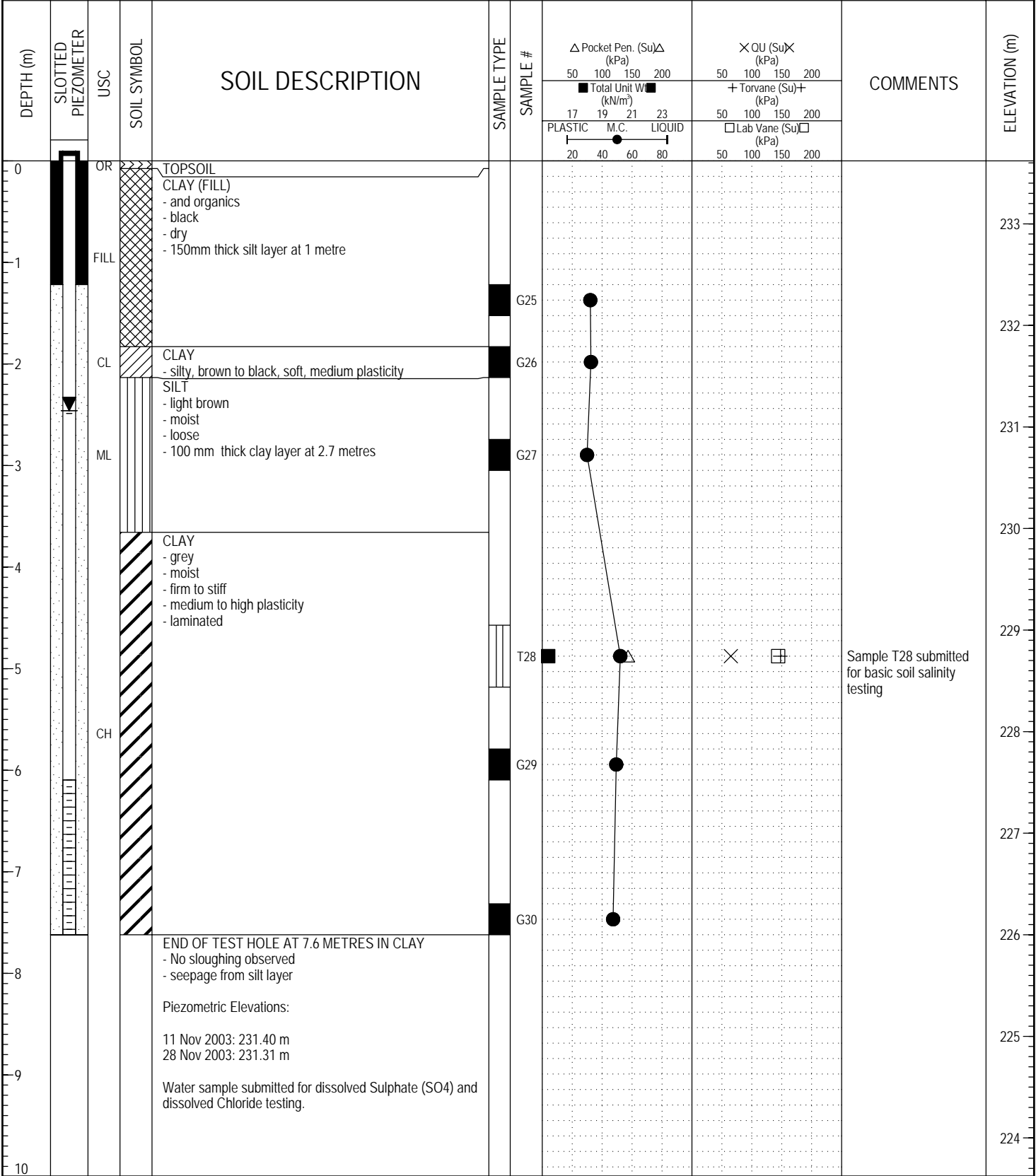


LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 25.91 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 12/3/04
PROJECT ENGINEER: Gil Robinson	Page 3 of 3

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-2
LOCATION: Centerline of Lagimodiere Blvd. South side of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.62
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	



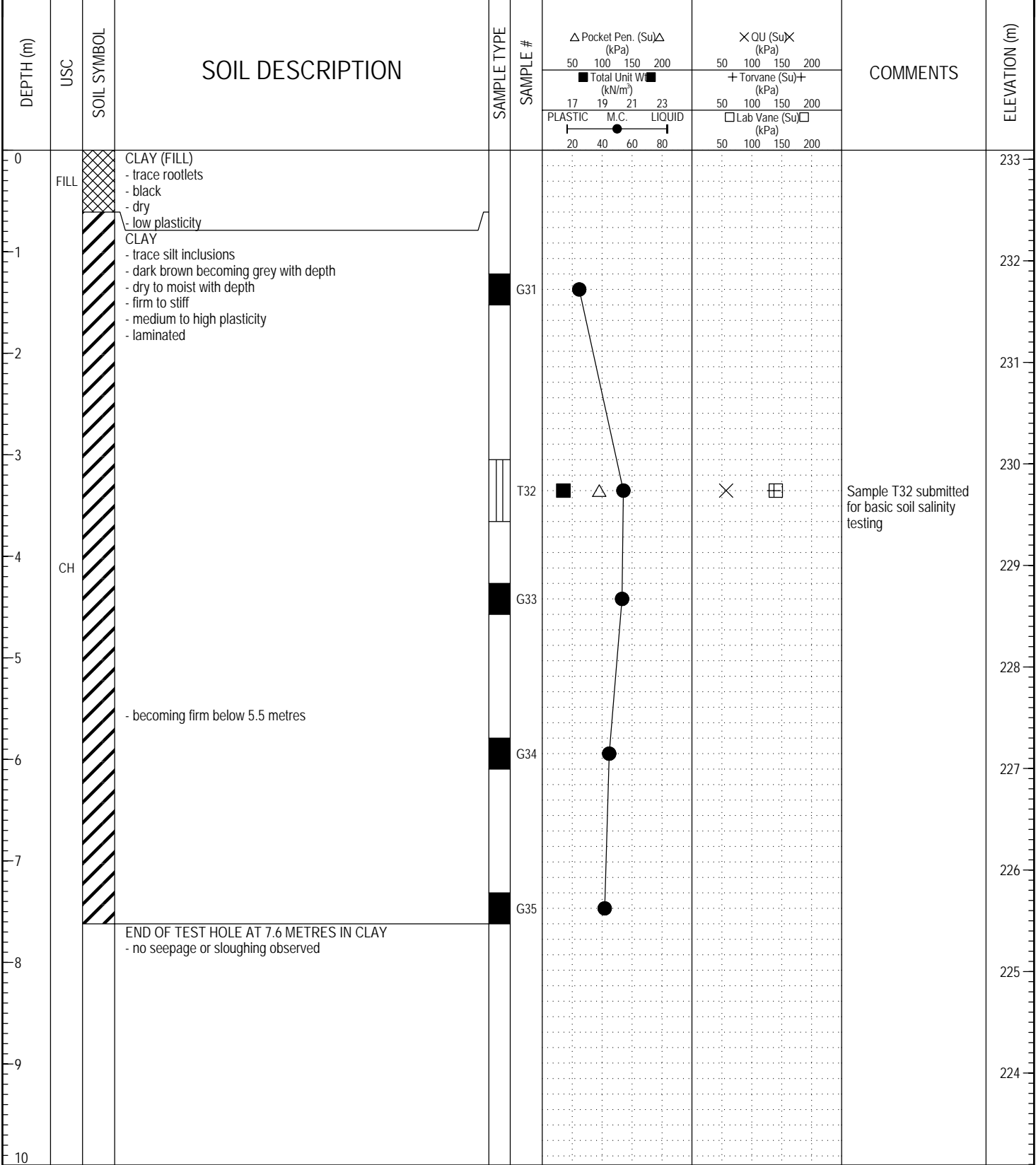
LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 7.62 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 1 of 1

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-3
LOCATION: 30m west of Lagimodiere Blvd. Southside of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.09

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE

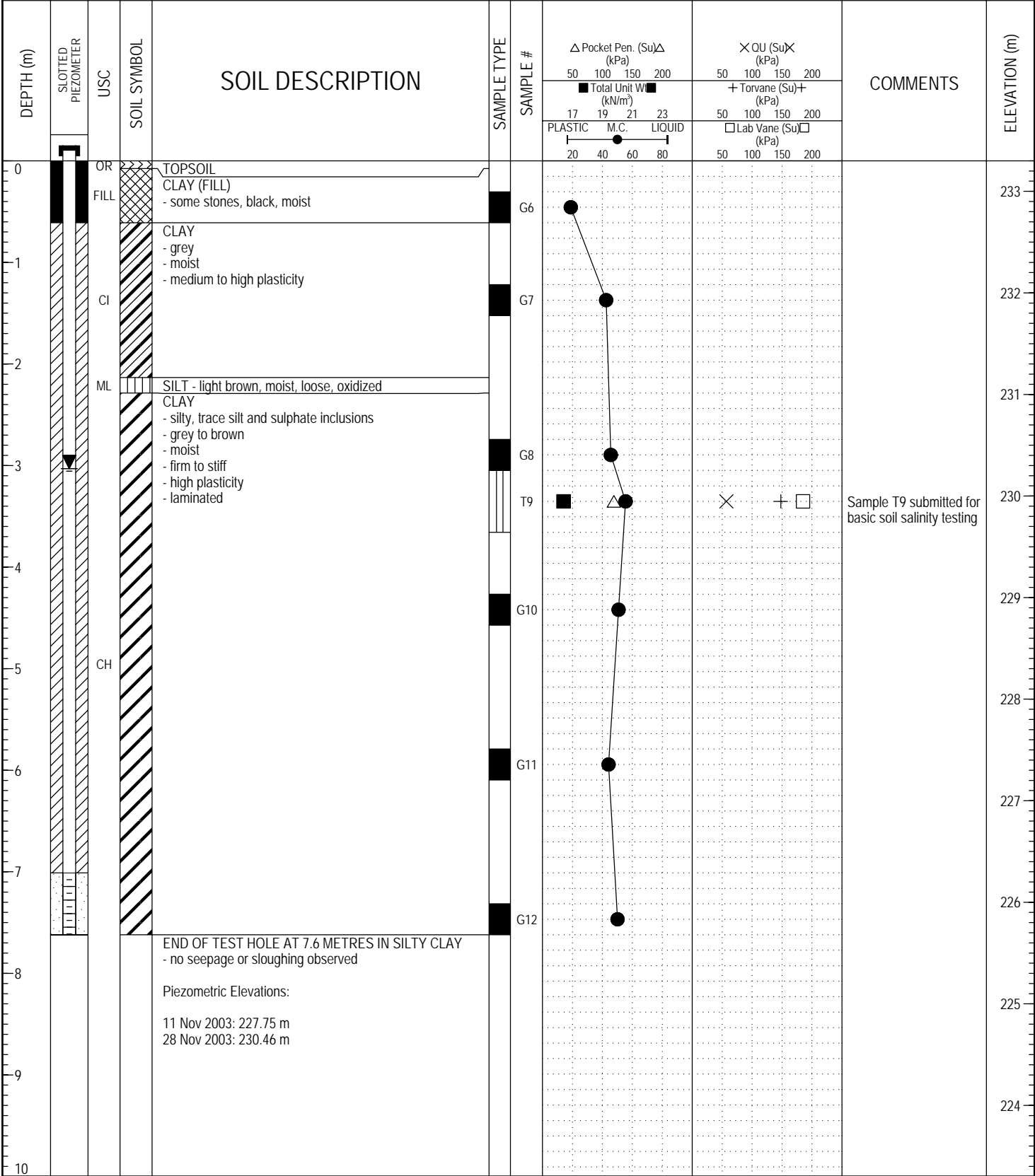


LOG OF TESTHOLE BR11VA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 7.62 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 1 of 1

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-4
LOCATION: 40m east of Lagimodiere Blvd. South side of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: Paddock Drilling Ltd.	METHOD: Acker MP-5 c/w 125 mm solid stem augers	ELEVATION (m): 233.3
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	



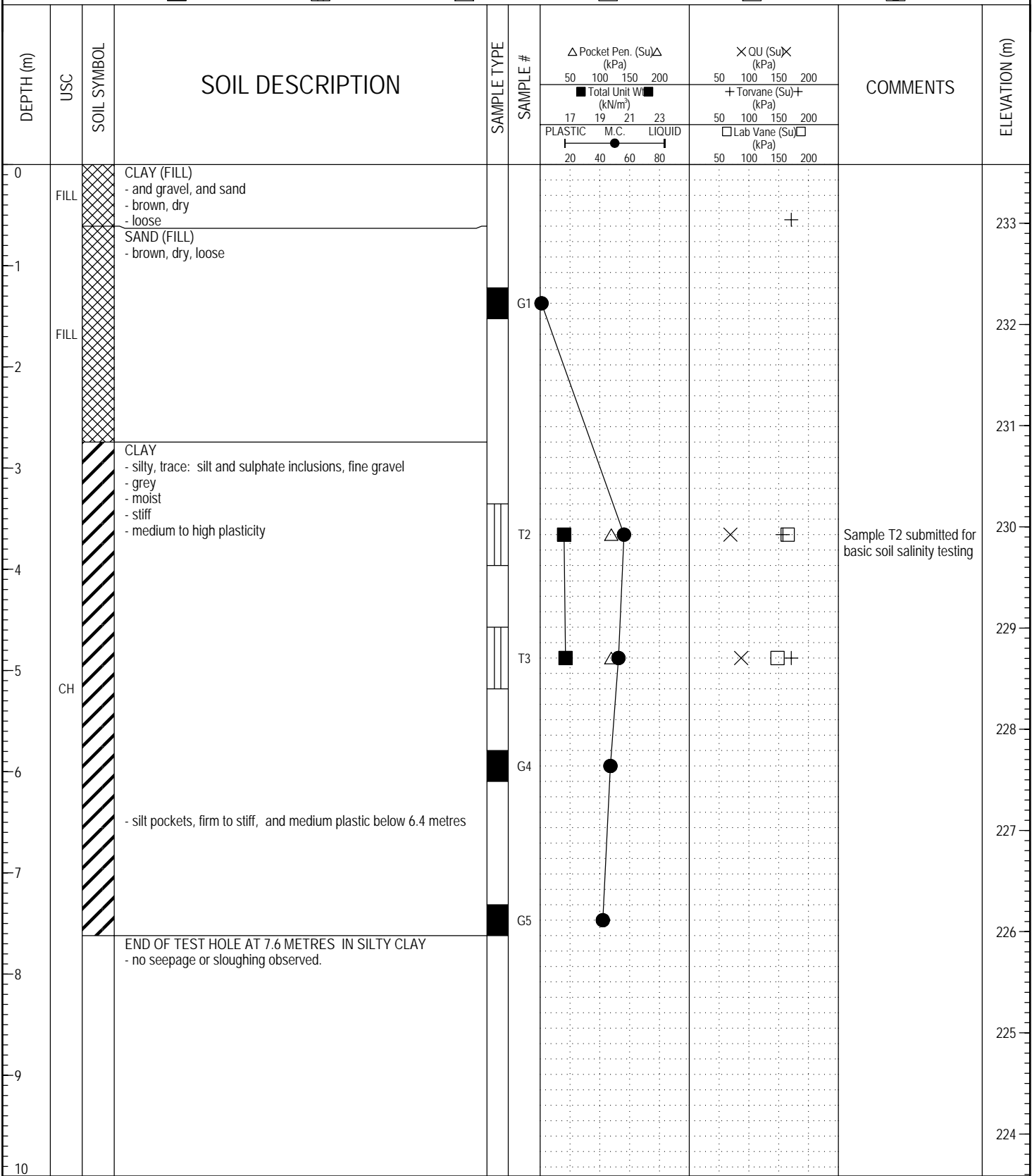
LOG OF TESTHOLE BR11VA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 7.62 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 23/9/03
PROJECT ENGINEER: Gil Robinson	Page 1 of 1

PROJECT: Branch II Aqueduct Valve Chamber CLIENT: City of Winnipeg - WWD TESTHOLE NO: TH-5
 LOCATION: 12m east of Lagimodiere Blvd. Northside of Navin drain. PROJECT NO.: D265-182-00-04
 CONTRACTOR: Paddock Drilling Ltd. METHOD: Acker MP-5 c/w 125 mm solid stem augers ELEVATION (m): 233.58

SAMPLE TYPE GRAB SHELBY TUBE SPLIT SPOON BULK NO RECOVERY CORE




LOG OF TESTHOLE BRIIVA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt COMPLETION DEPTH: 7.62 m
 REVIEWED BY: Gil Robinson COMPLETION DATE: 23/9/03
 PROJECT ENGINEER: Gil Robinson Page 1 of 1

PROJECT: Branch II Aqueduct Valve Chamber	CLIENT: City of Winnipeg - WWD	TESTHOLE NO: TH-6
LOCATION: 12m east of Lagimodiere Blvd., 45m north of Navin drain.		PROJECT NO.: D265-182-00-04
CONTRACTOR: UMA Engineering Ltd.	METHOD: 50mm diameter hand auger.	ELEVATION (m): 231.999
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)	USC	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE #	COMMENTS	ELEVATION (m)
0							
0	CI		Clay - silty - grey to black, wet, soft - intermediate plasticity	<input checked="" type="checkbox"/>	1	Samples 1, 2 and 3 submitted for basic soil salinity testing.	231
1				<input checked="" type="checkbox"/>	2		
2				<input checked="" type="checkbox"/>	3		
2			END OF TEST HOLE AT 1.8 METRES IN CLAY. - No seepage or sloughing observed.				230
3							229
4							228
5							227
6							226
7							225
8							224
9							223
10							

LOG OF TESTHOLE BRIIWA-1.GPJ UMA.GDT 29/4/04



LOGGED BY: Darryl Schmidt	COMPLETION DEPTH: 4.57 m
REVIEWED BY: Gil Robinson	COMPLETION DATE: 5/11/03
PROJECT ENGINEER: Gil Robinson	Page 1 of 1



Analytical Report

Norwest Labs
 1357 Dugald Road
 Winnipeg, MB. R2J 0H3
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 Fax: (204) 275-6019

Bill to: U.M.A. Engineering Ltd.
 Report to: U.M.A. Engineering Ltd.
 1479 Buffalo Place
 Winnipeg, MB, Canada
 R3T1L7
 Attn: Gil Robinson, E.I.T.
 Sampled By: DS
 Company: UMA

Project ID:
 Name:
 Location:
 LSD:
 P.O.:
 Acct. Code:

NWL Lot ID: **268400**
 Control Number:
 Date Received: Nov 07, 2003
 Date Reported: Nov 14, 2003
 Report Number: 481514

Analyte	Units	Results		Detection Limit		
		Results	Results			
Salinity						
pH	Saturated Paste	pH	7.8	8.1	8.1	
Electrical Conductivity	Saturated Paste	dS/m at 25C	1.00	1.47	2.01	0.01
SAR	Saturated Paste		4.4	10.8	9.2	
% Saturation		%	120	138	126	
Caicum	Saturated Paste	meq/L	2.17	1.21	2.64	0.01
Calcium	Saturated Paste	mg/kg	52.2	33.3	66.7	
Magnesium	Saturated Paste	meq/L	1.80	1.30	2.97	0.02
Magnesium	Saturated Paste	mg/kg	26.2	21.7	45.5	
Sodium	Saturated Paste	meq/L	6.23	12.2	15.4	0.04
Sodium	Saturated Paste	mg/kg	172	385	449	
Potassium	Saturated Paste	meq/L	0.37	0.35	0.45	0.03
Potassium	Saturated Paste	mg/kg	17	19	22	
Chloride	Saturated Paste	meq/L	5.08	8.32	10.1	0.03
Chloride	Saturated Paste	mg/kg	216	406	452	
Sulphate-S	Saturated Paste	meq/L	1.55	1.78	6.53	0.06
Sulphate-S	Saturated Paste	mg/kg	29.8	39.3	132	
TGR	Saturated Paste	T/ac	<0.1	0.2	0.2	

TH-06

Approved by: 
 Ken Mrazek
 Agri-Food Services Manager



Methodology and Notes

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1479 Buffalo Place
Winnipeg, MB, Canada
R3T1L7
Attn: Gil Robinson, E.I.T.
Sampled By: DS
Company: UMA

Project ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 268400
Control Number:
Date Received: Nov 07, 2003
Date Reported: Nov 14, 2003
Report Number: 481514

Method of Analysis:

MethodName	Reference	Method	Date Analysis Started	Location
Saturated Paste in General Soil	McKeague	* Soluble Salts in Saturation Extract, 3.21	12-Nov-03	Norwest Labs Edmonton

* Norwest method(s) is based on reference method

References:

McKeague Manual on Soil Sampling and Methods of Analysis

Comments:

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted

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Analytical Report

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 Winnipeg, MB, Canada
 R3T1L7
 Attn: Gil Robinson, E.I.T.
 Sampled By: DS
 Company: UMA

Project ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 270692
 Control Number:
 Date Received: Nov 20, 2003
 Date Reported: Nov 25, 2003
 Report Number: 486365

NWL Number	270692-1	270692-2	270692-3
Sample Date	Sep 30, 2003	Sep 30, 2003	Sep 30, 2003
Sample Description	TH-1 CLAY SAMPLE #T15 30/09/03	TH-2 CLAY SAMPLE #T28 30/09/03	TH-3 CLAY SAMPLE #T32 30/09/03
Matrix	Soil - general	Soil - general	Soil - general

Analyte		Units	Results	Results	Results	Detection Limit
Salinity						
pH	Saturated Paste	pH	8.2	8.1	8.2	
Electrical Conductivity	Saturated Paste	dS/m at 25C	0.78	1.41	1.57	0.01
SAR	Saturated Paste		1.2	1.4	1.6	
% Saturation		%	138	124	128	
Calcium	Saturated Paste	meq/L	3.61	6.80	6.44	0.01
Calcium	Saturated Paste	mg/kg	99.5	169	165	
Magnesium	Saturated Paste	meq/L	3.23	6.47	8.69	0.02
Magnesium	Saturated Paste	mg/kg	53.9	97.1	134	
Sodium	Saturated Paste	meq/L	2.21	3.57	4.45	0.04
Sodium	Saturated Paste	mg/kg	70	102	131	
Potassium	Saturated Paste	meq/L	0.32	0.46	0.47	0.03
Potassium	Saturated Paste	mg/kg	17	22	23	
Chloride	Saturated Paste	meq/L	0.53	0.86	0.32	0.03
Chloride	Saturated Paste	mg/kg	26	38	14	
Sulphate-S	Saturated Paste	meq/L	6.02	13.1	16.4	0.06
Sulphate-S	Saturated Paste	mg/kg	132	260	334	
TGR	Saturated Paste	T/ac	<0.1	<0.1	<0.1	



Analytical Report

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 1479 Buffalo Place
 Winnipeg, MB, Canada
 R3T1L7
 Attn: Gil Robinson, E.I.T.
 Sampled By: DS
 Company: UMA

Project ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 270692
 Control Number:
 Date Received: Nov 20, 2003
 Date Reported: Nov 25, 2003
 Report Number: 486365

NWL Number	270692-4	270692-5
Sample Date	Sep 30, 2003	Sep 30, 2003
Sample Description	TH-4 CLAY SAMPLE #T9 30/09/03	TH-5 CLAY SAMPLE #T2 30/09/03
Matrix	Soil - general	Soil - general

Analyte		Units	Results	Results	Results	Detection Limit
Salinity						
pH	Saturated Paste	pH	8.0	8.0		
Electrical Conductivity	Saturated Paste	dS/m at 25C	4.25	2.99		0.01
SAR	Saturated Paste		1.6	2.2		
% Saturation		%	124	111		
Calcium	Saturated Paste	meq/L	28.6	13.7		0.01
Calcium	Saturated Paste	mg/kg	708	304		
Magnesium	Saturated Paste	meq/L	32.8	18.0		0.02
Magnesium	Saturated Paste	mg/kg	493	242		
Sodium	Saturated Paste	meq/L	9.14	8.69		0.04
Sodium	Saturated Paste	mg/kg	260	221		
Potassium	Saturated Paste	meq/L	0.84	0.62		0.03
Potassium	Saturated Paste	mg/kg	40	27		
Chloride	Saturated Paste	meq/L	0.55	7.92		0.03
Chloride	Saturated Paste	mg/kg	24	311		
Sulphate-S	Saturated Paste	meq/L	64.4	29.1		0.06
Sulphate-S	Saturated Paste	mg/kg	1280	515		
TGR	Saturated Paste	T/ac	<0.1	<0.1		

Approved by:

Ken Mrazek
 Agri-Food Services Manager



Methodology and Notes

Norwest Labs
1357 Dugald Road
Winnipeg, MB. R2J 0H3
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R3T1L7
Attn: Gil Robinson, E.I.T.
Sampled By: DS
Company: UMA

Project
ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 270692
Control Number:
Date Received: Nov 20, 2003
Date Reported: Nov 25, 2003
Report Number: 486365

Page: 3 of 3

Method of Analysis:

MethodName	Reference	Method	Date Analysis Started	Location
Saturated Paste in General Soil	McKeague	* Soluble Salts in Saturation Extract, 3.21	24-Nov-03	Norwest Labs Edmonton

* Norwest method(s) is based on reference method

References:

McKeague Manual on Soil Sampling and Methods of Analysis

Comments:

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted

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Analytical Report

Norwest Labs
1357 Dugald Road
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Bill to: U.M.A. Engineering Ltd.
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1479 Buffalo Place
Winnipeg, MB, Canada
R3T1L7
Attn: Gil Robinson, E.I.T.
Sampled By: R. Stark
Company: UMA

Project
ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 272364
Control Number:
Date Received: Nov 28, 2003
Date Reported: Dec 03, 2003
Report Number: 489937

Page: 1 of 2

NWL Number 272364-1
Sample Date Nov 28, 2003
Sample Description TH-2 WATER 28/11/03
Matrix Water - General

Analyte		Units	Results	Results	Results	Detection Limit
Routine Water						
Chloride	Dissolved	mg/L	1760			0.5
Sulphate (SO4)	Dissolved	mg/L	867			0.1

Approved by:

Ken Mrazek
Agri-Food Services Manager



Methodology and Notes

Norwest Labs
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R3T1L7
Attn: Gil Robinson, E.I.T.
Sampled By: R. Stark
Company: UMA

Project
ID:
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: **272364**
Control Number:
Date Received: Nov 28, 2003
Date Reported: Dec 03, 2003
Report Number: 489937

Page: 2 of 2

Method of Analysis:

MethodName	Reference	Method	Date of Analys	Location	Analyst
Chloride in Water	APHA	* Automated Ferricyanide Method, 4500-Cl- E	Dec 03, 2003	Norwest Labs Winnipeg	Natalie Oree
Metals Routine in water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	Dec 03, 2003	Norwest Labs Winnipeg	Mervin Bilous

* Norwest method(s) is based on reference method

References:

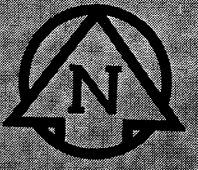
APHA

Standard Methods for the Examination of Water and Wastewater

Comments:

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted

The test report shall not be reproduced except in full, without the written approval of the laboratory



LEGEND:

⊕ TEST HOLE



UMA Engineering Ltd.

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**THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT**

TITLE: BRANCH II VALVE CHAMBER - TEST HOLE LOCATIONS

JOB No. D265-182-00 DATE: November, 2003

SCALE: 1:500 DWG. No.

CHECKED: GR **01**

Plot Scale: 1=1
UMA FILE NAME: TEST-HOLES_RX.DWG 2004-04-29 2:30pm Wjd