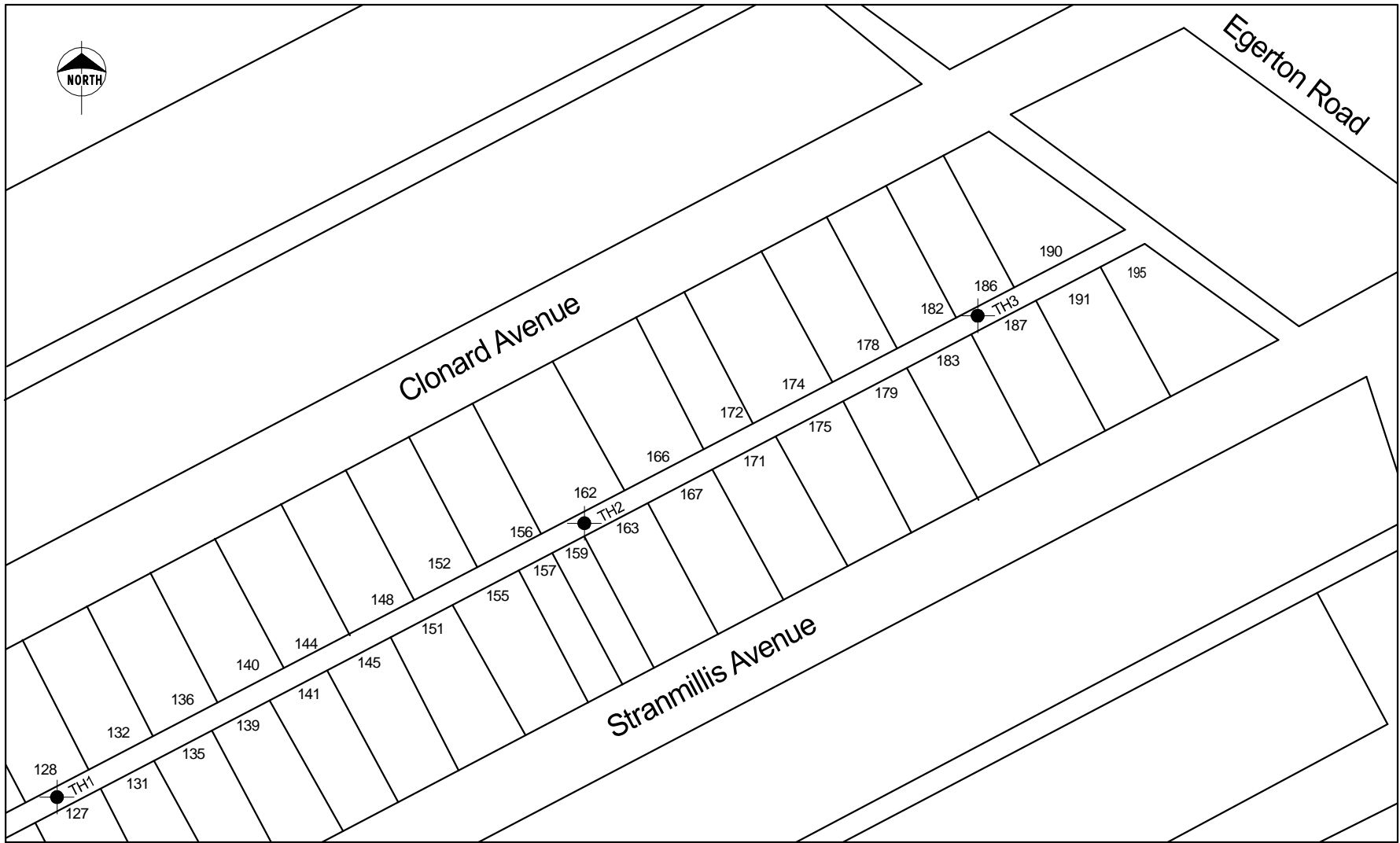


GEOTECHNICAL INVESTIGATION



**THE
NATIONAL
TESTING
LABORATORIES
LIMITED**
Established in 1923

Project No.: SEG-706

Drawn by: FL

Figure: 1

Date: June 6, 2007

Reviewed by: RH

Scale: NTS

Testhole Location Plan,
Project No. 063048,
Back Lane Local Improvements,
Clonard/Stranmillis Ave., Between Des Meurons St. and Egerton,
Winnipeg, Manitoba.

TESTHOLE TH2



Project Name: Project No. 063048 - Back Lane Local Improvements

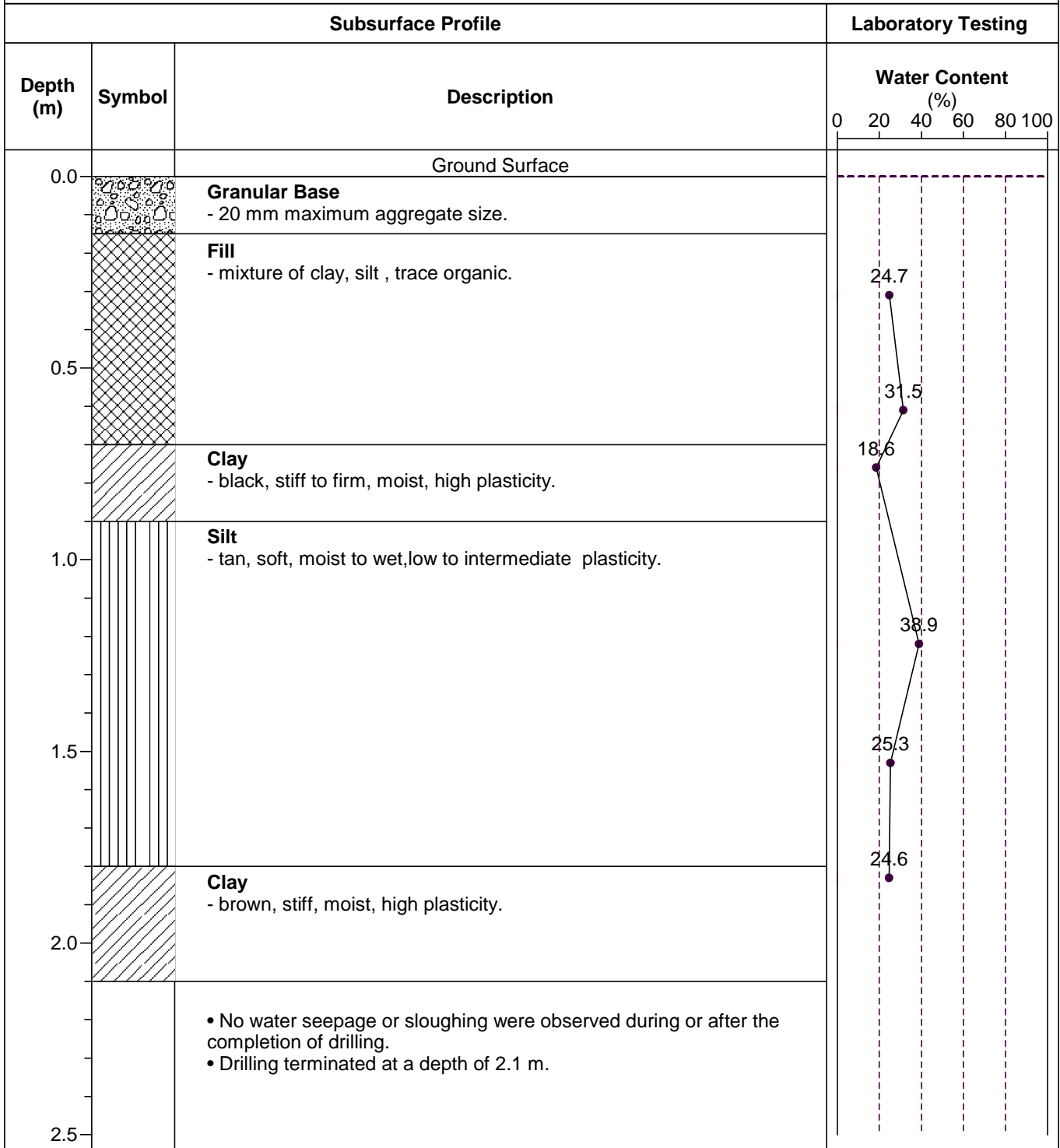
Date Drilled: May 28, 2007

Client: SEG Engineering Inc.

Depth of Testhole: 2.1 m

Site: Clonard/Stranmillis Ave. between Des Meurons St. to Egerton Rd. Logged by: Olya Babashko

Testhole Location: 2.5 m east, 2.5 m south of the southwest corner of lot 162 Clonard Ave.



TESTHOLE TH3



Project Name: Project No. 063048 - Back Lane Local Improvements

Date Drilled: May 28, 2007

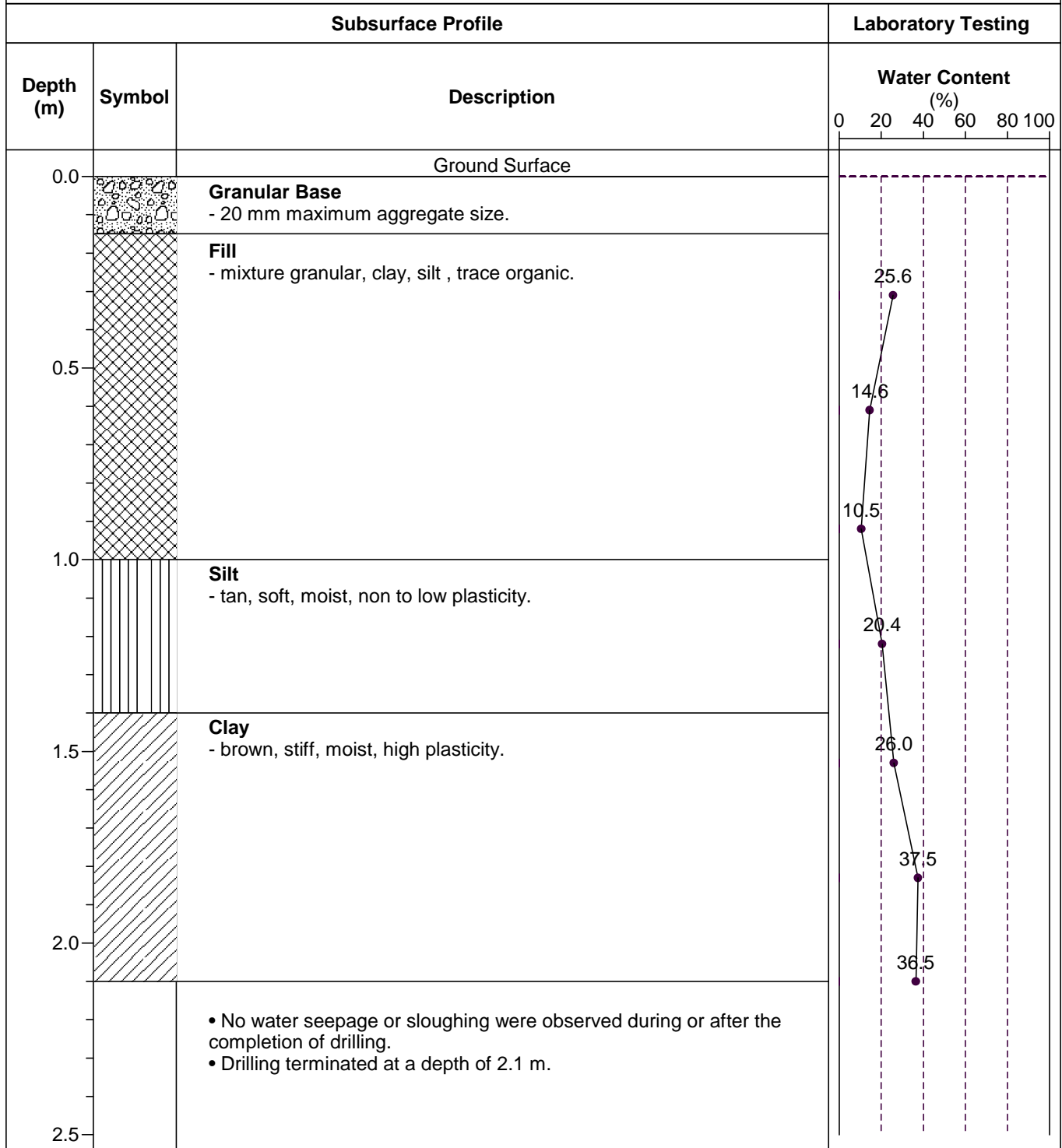
Client: SEG Engineering Inc.

Depth of Testhole: 2.1 m

Site: Clonard/Stranmillis Ave. between Des Meurons St. to Egerton Rd.

Logged by: Olya Babashko

Testhole Location: 2 m east, 1 m south of the southeast corner of lot 182 Clonard Ave.



TESTHOLE TH1

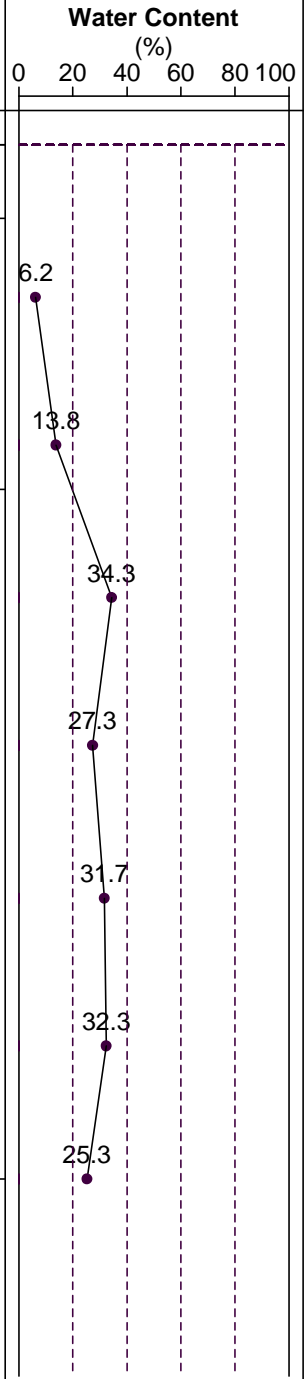


Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Clonard/Stranmillis Ave. between Des Meurons St. to Egerton Rd.
 Testhole Location: 5 m east and 2.5 m south of the southwest corner of lot 128 Clonard Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m

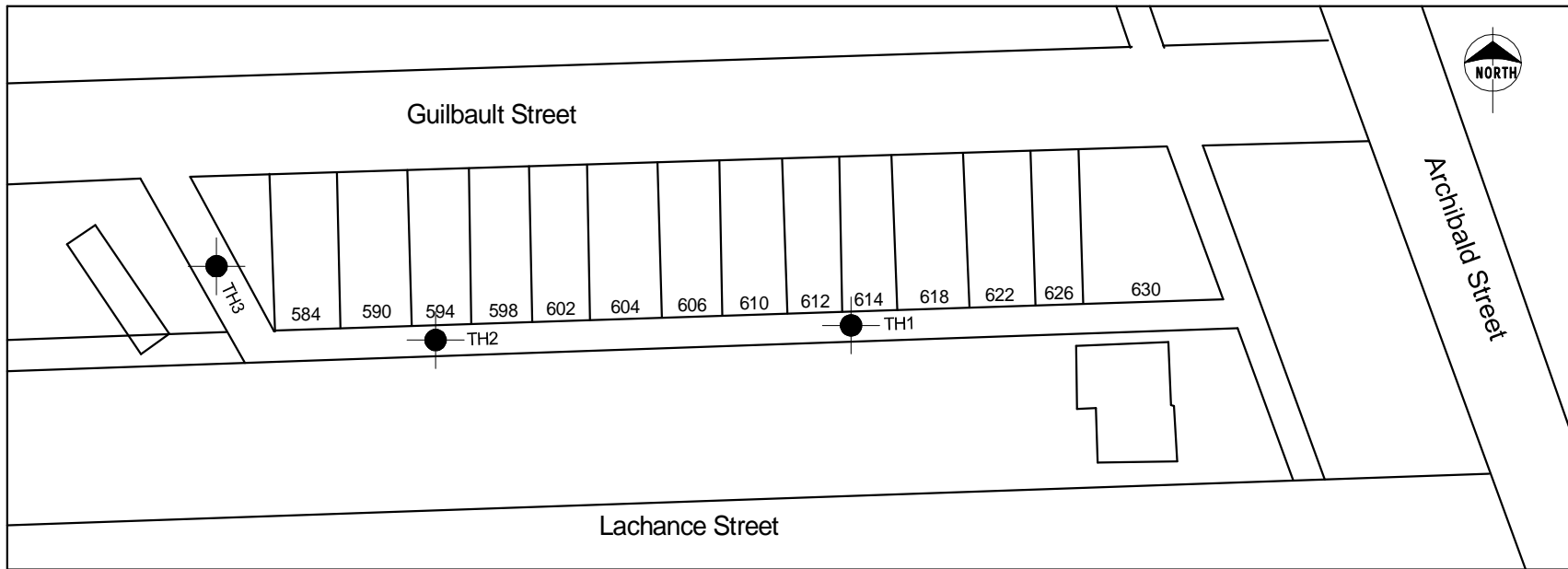
Logged by: Olya Babashko


Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
0.0		Ground Surface	
		Granular Base - 20 mm maximum aggregate size.	
		Fill - mixture of granular, clay, some sand, trace organic.	
0.5			
		Clay - black, stiff to firm, moist, high plasticity. - grey below 1.5 m. - silt inclusions below 2.0 m.	
1.0			
1.5			
2.0			
2.1		<ul style="list-style-type: none"> No water seepage or sloughing were observed during or after the completion of drilling. Drilling terminated at a depth of 2.1 m. 	
2.5			



**Guilbault/Archibald St.
South of Guilbault St.
Project No. 063048-Back Lane Local Improvements**

Testhole ID	Testhole Location	Pavement Structure Material		Sample Description	Sample Depth (m)	Moisture Content (%)	Particle Size Analysis				Atterberg Limits		
		Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	0.5 m east and 3 m south of the southwest corner of lot 614 Lachance St.	Granular	150	N/A	-	-	-	-	-	-	-	-	-
TH2	1.5 m east and 3 m south of the southwest corner of lot 594 Guilbault St.	Granular	150	Clay	1.2	27.3	0.0	24.8	12.0	63.3	61	18	43
TH3	7 m west and 12 m north of the southwest corner of lot 584 Guilbault St.	Granular	150	Clayey Silt	1.2	38.9	0.0	3.5	69.3	27.2	81	21	60



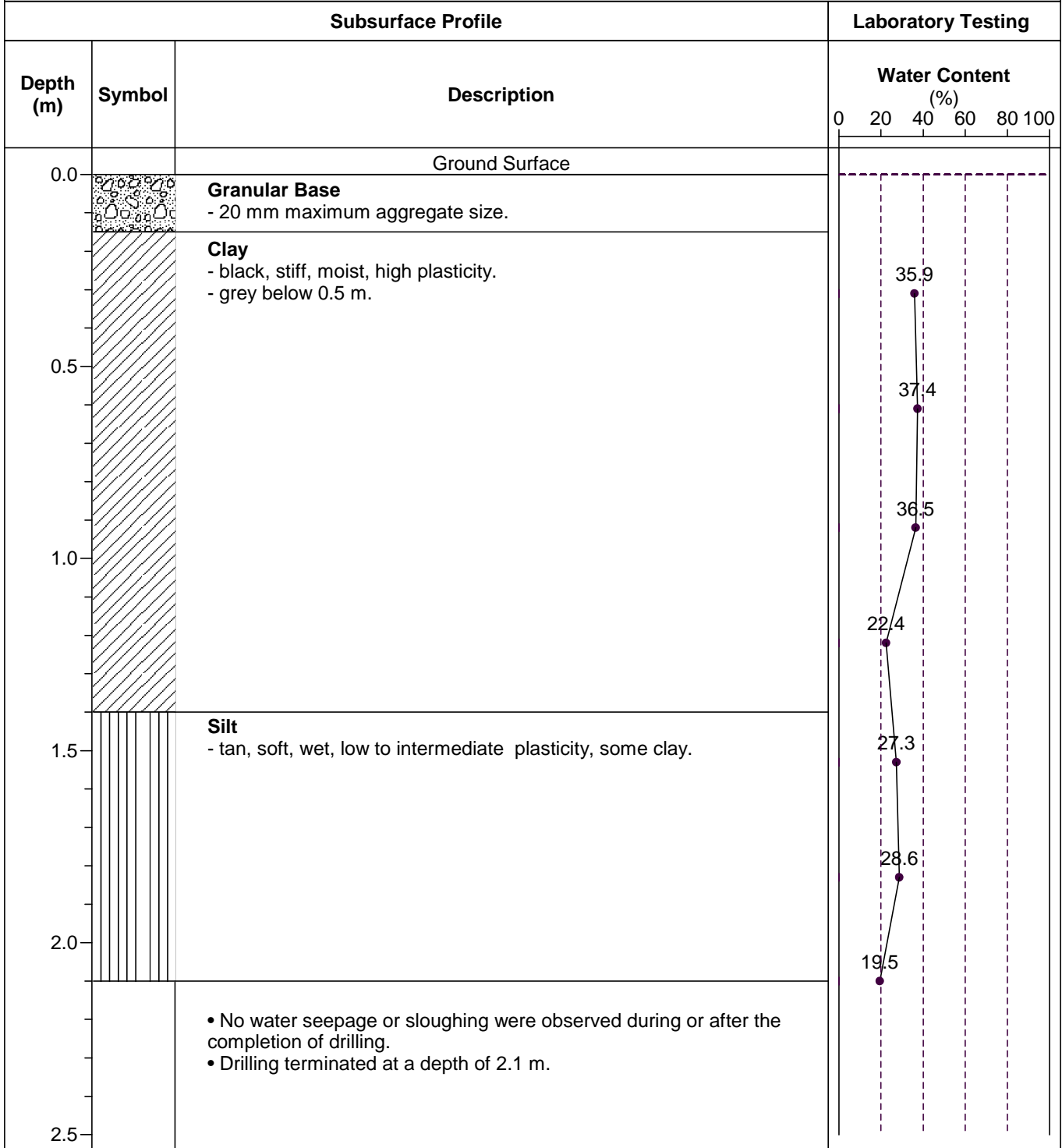
 <p>THE NATIONAL TESTING LABORATORIES LIMITED <i>Established in 1923</i></p>	Project No.: SEG-706	Drawn by: FL	Figure: 1	Testhole Location Plan, Project No. 063048, Back Lane Local Improvements, Guilbault/Archibald St., South of Guilbault St. Winnipeg, Manitoba
	Date: June 5, 2007	Reviewed by: RH	Scale: NTS	

TESTHOLE TH1



Project Name: Project No. 063048 - Back Lane Local Improvements
Client: SEG Engineering Inc.
Site: Guilbault/Archibald St. South of Guilbault St.
Testhole Location: 0.5 m east and 3 m south of the southeast corner of lot 614 Guilbault St.

Date Drilled: May 28, 2007
Depth of Testhole: 2.1 m
Logged by: Farouk Fourar

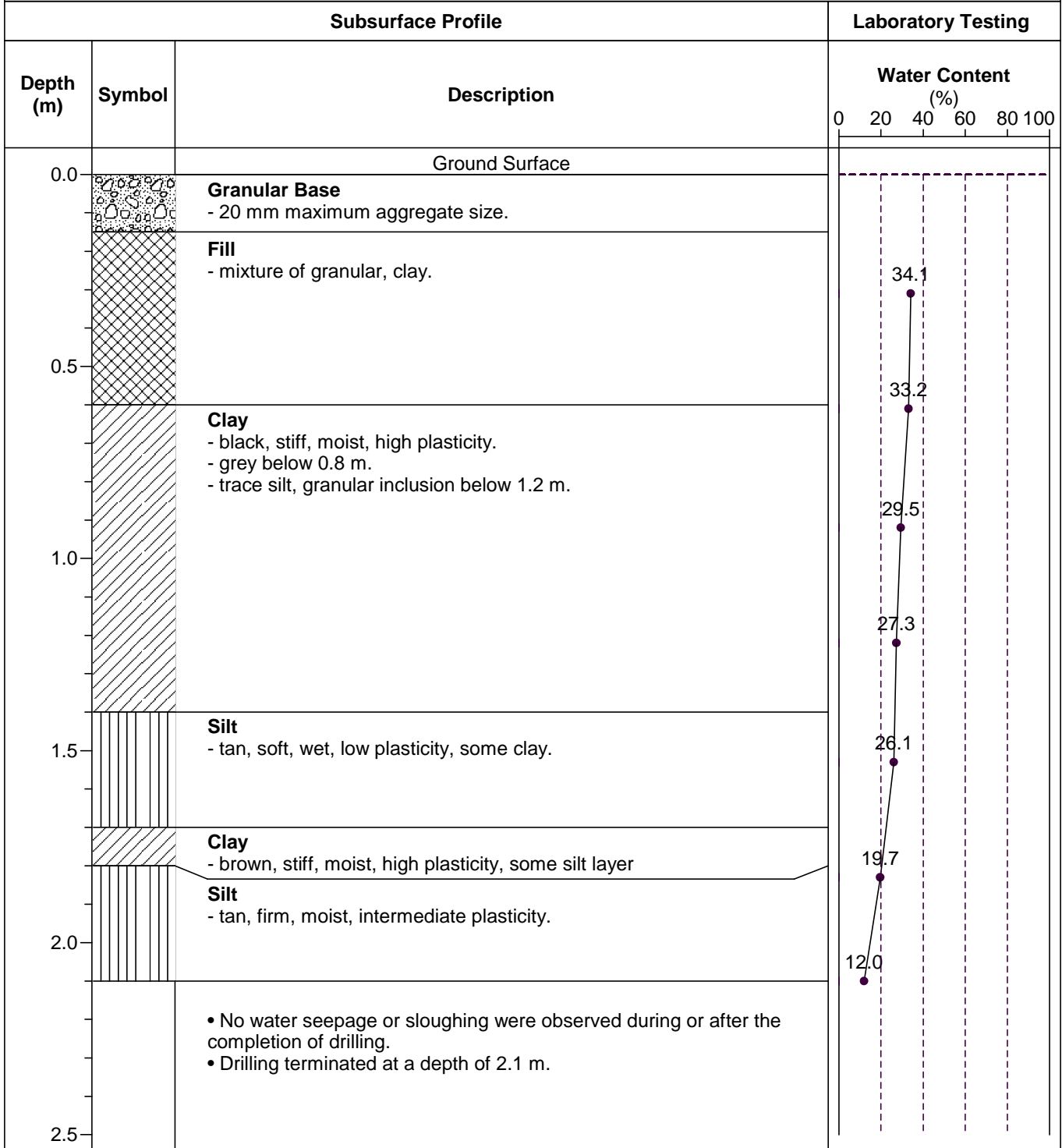


TESTHOLE TH2



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Guilbault/Archibald St. South of Guilbault St.
 Testhole Location: 1.5 m east and 3 m south of the southeast corner of lot 598 Guilbault St.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar

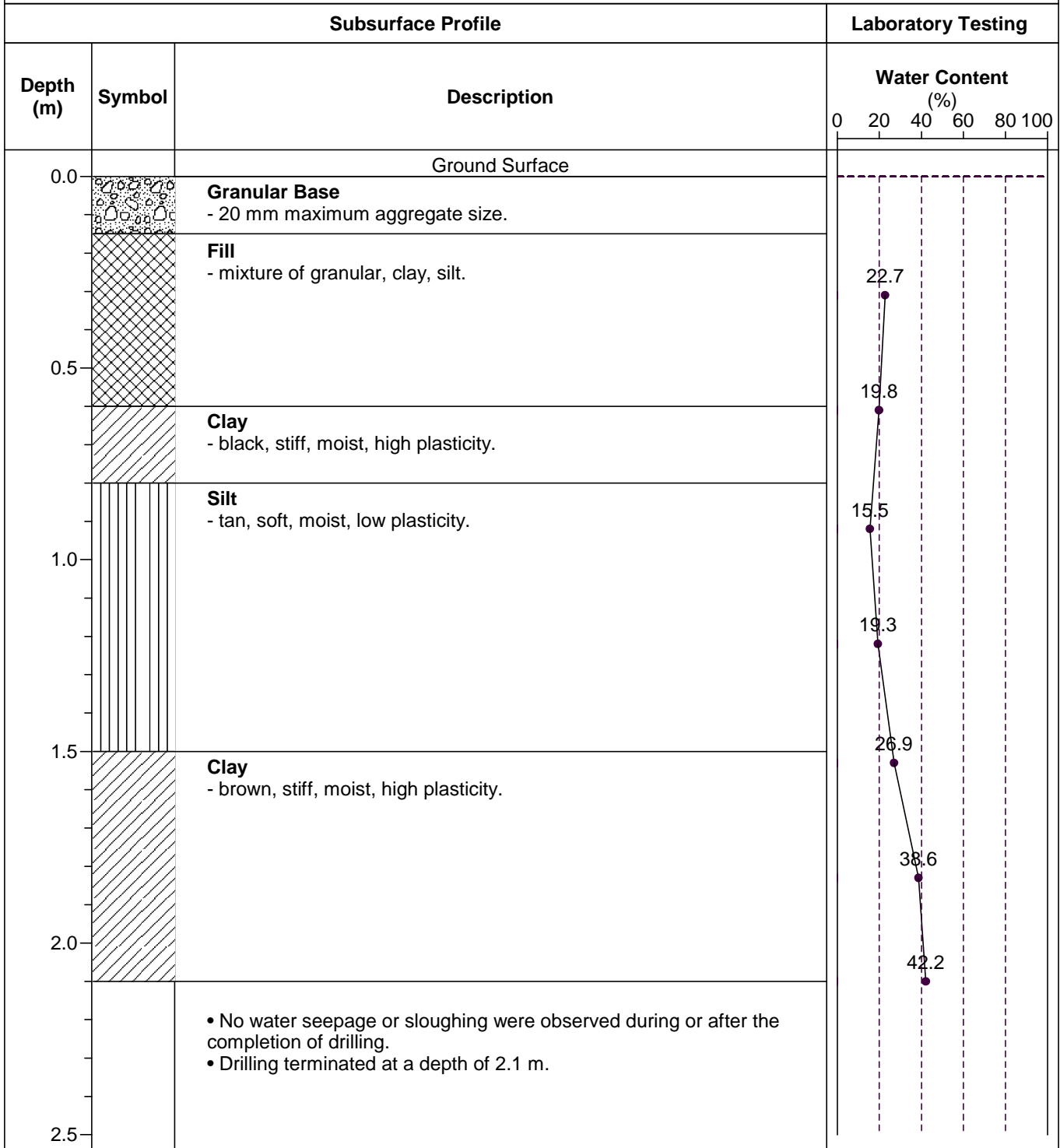


TESTHOLE TH3



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Guilbault/Archibald St. South of Guilbault St.
 Testhole Location: 7 m west and 12 m north of the southwest corner of lot 584 Guilbault St.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar



**Horace/Eugenie St.
East of Rue Youville
Project No. 063048-Back Lane Local Improvements**

Testhole ID	Testhole Location	Pavement Structure Material		Sample Description	Sample Depth (m)	Moisture Content (%)	Particle Size Analysis				Atterberg Limits		
		Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	4 m south and 0.5 m east of the southwest corner of lot 428 Horace St.	Granular	150	Clayey Silt	1.5	28.2	0.0	2.2	53.4	44.4	35	17	18
TH2	3 m south on line of the southwest corner of lot 450 Horace St.	Granular	150	N/A	-	-	-	-	-	-	-	-	-
TH3	3 m north and 4 m east of the southeast corner of lot 441 Eugenie St.	Granular	150	Clay	1.5	30.7	0.0	2.2	14.2	83.6	72	25	47



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Project No.: SEG-706

Drawn by: FL

Figure: 1

Date: June 5, 2007

Reviewed by: RH

Scale: NTS

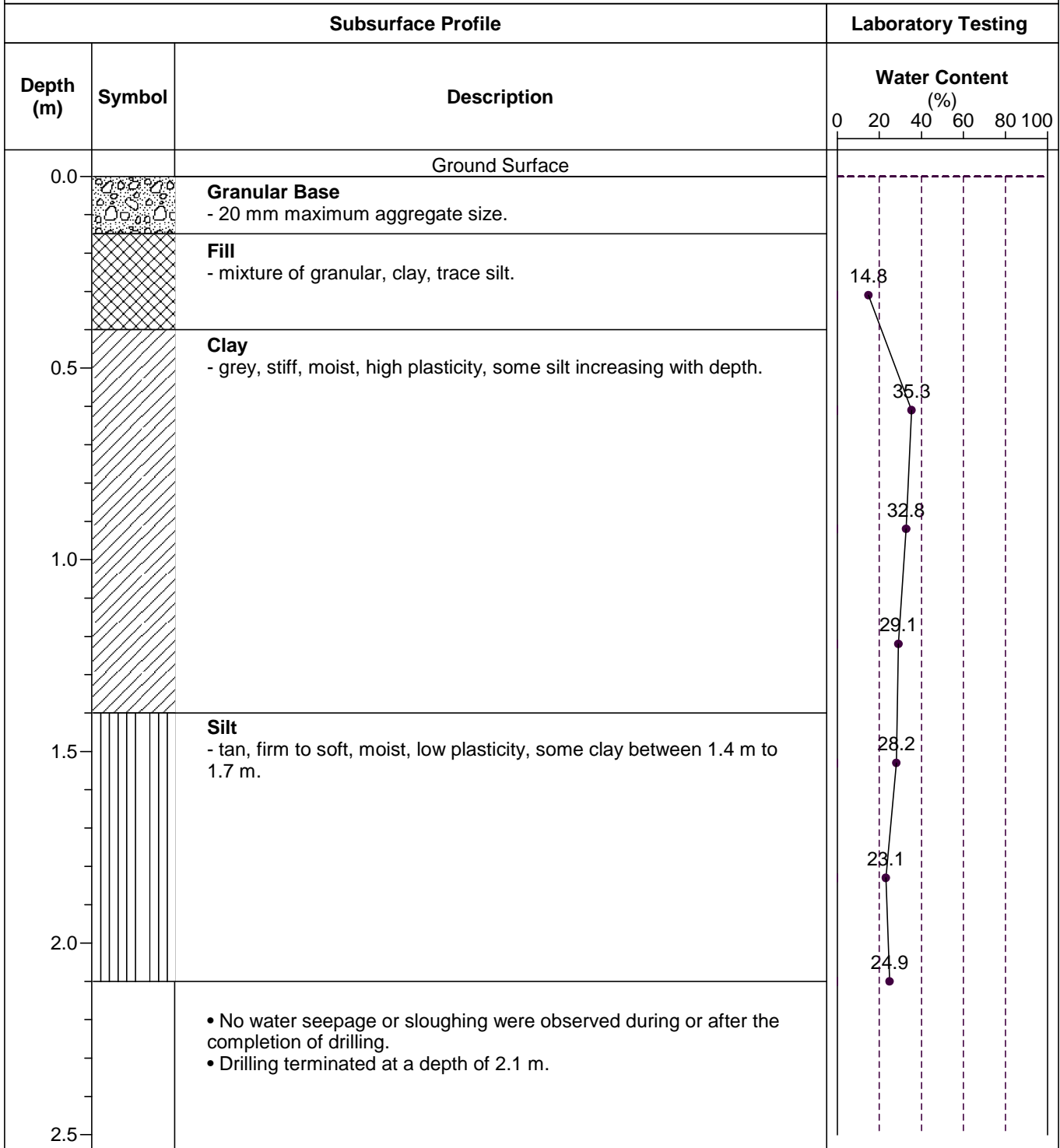
Testhole Location Plan,
Project No. 063048,
Back Lane Local Improvements,
Horace/Eugenie St., East of Rue Youville,
Winnipeg, Manitoba.

TESTHOLE TH1



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Horace/Eugenie St. East of Rue Youville.
 Testhole Location: 4 m south and 0.5 m east of the southwest corner of lot 428 Horace St.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar

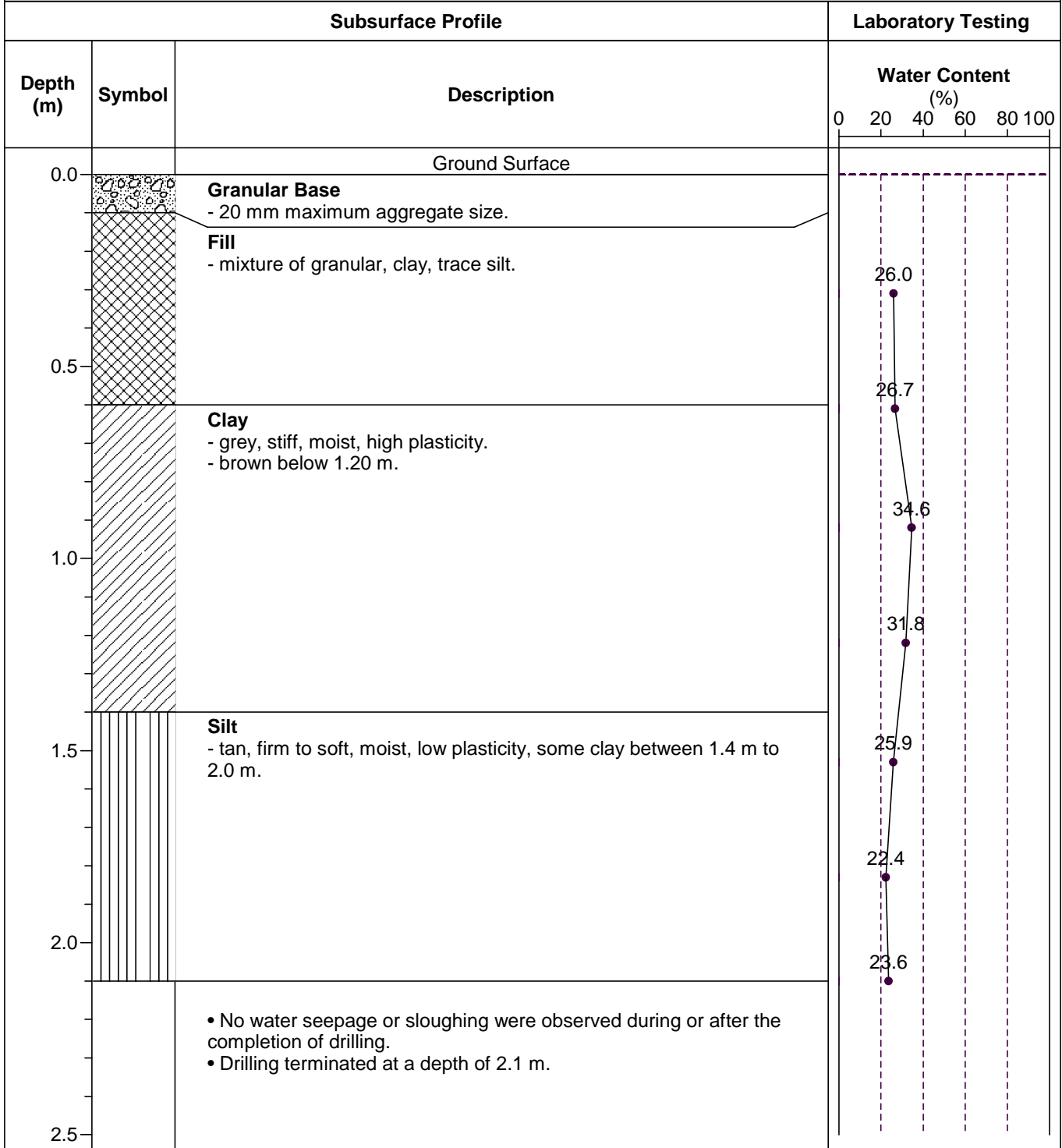


TESTHOLE TH2



Project Name: Project No. 063048 - Back Lane Local Improvements
Client: SEG Engineering Inc.
Site: Horace/Eugenie St. East of Rue Youville.
Testhole Location: 3 m south on line of the southwest corner of lot 450 Horace Str.

Date Drilled: May 28, 2007
Depth of Testhole: 2.1 m
Logged by: Farouk Fourar

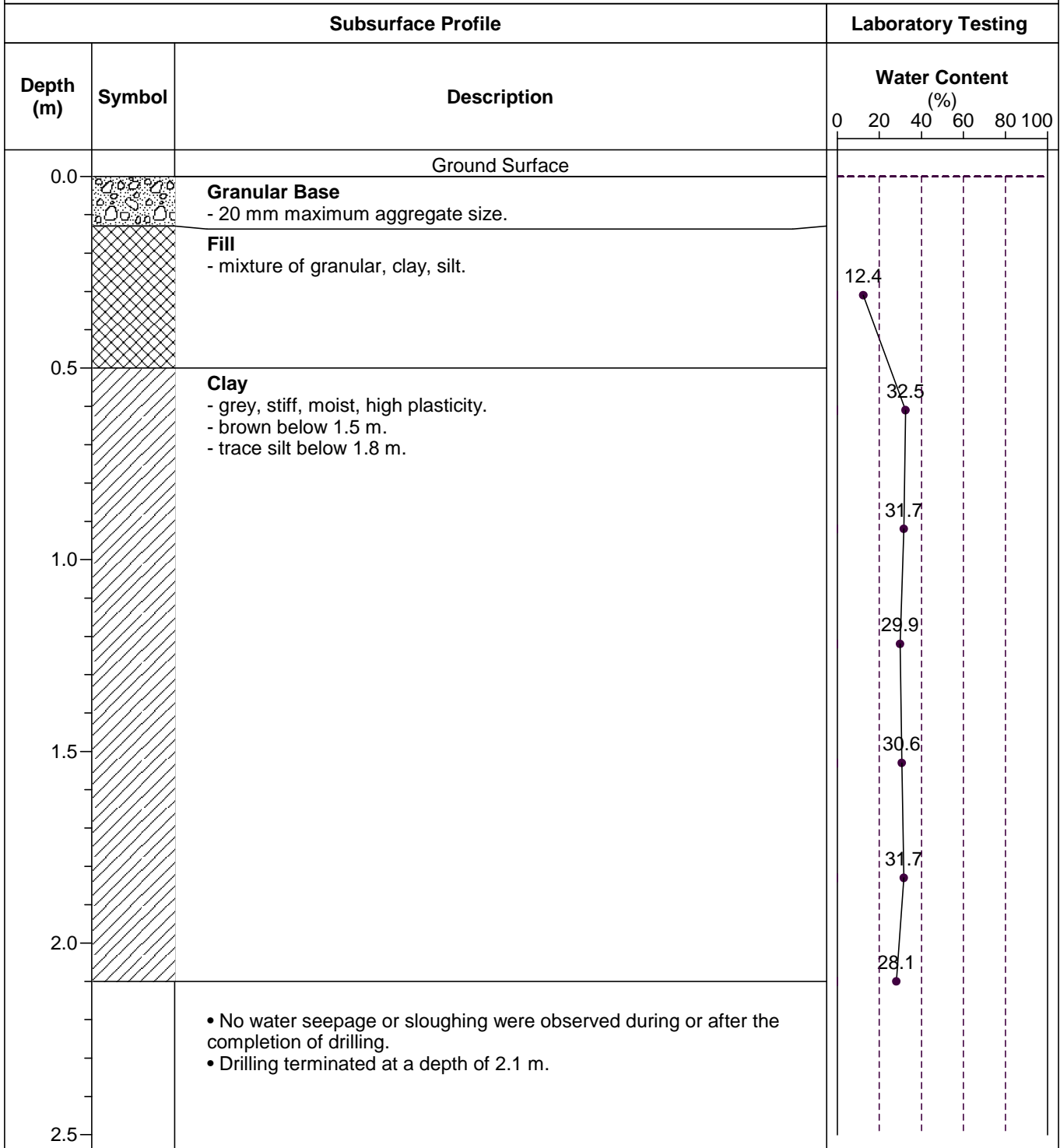


TESTHOLE TH3



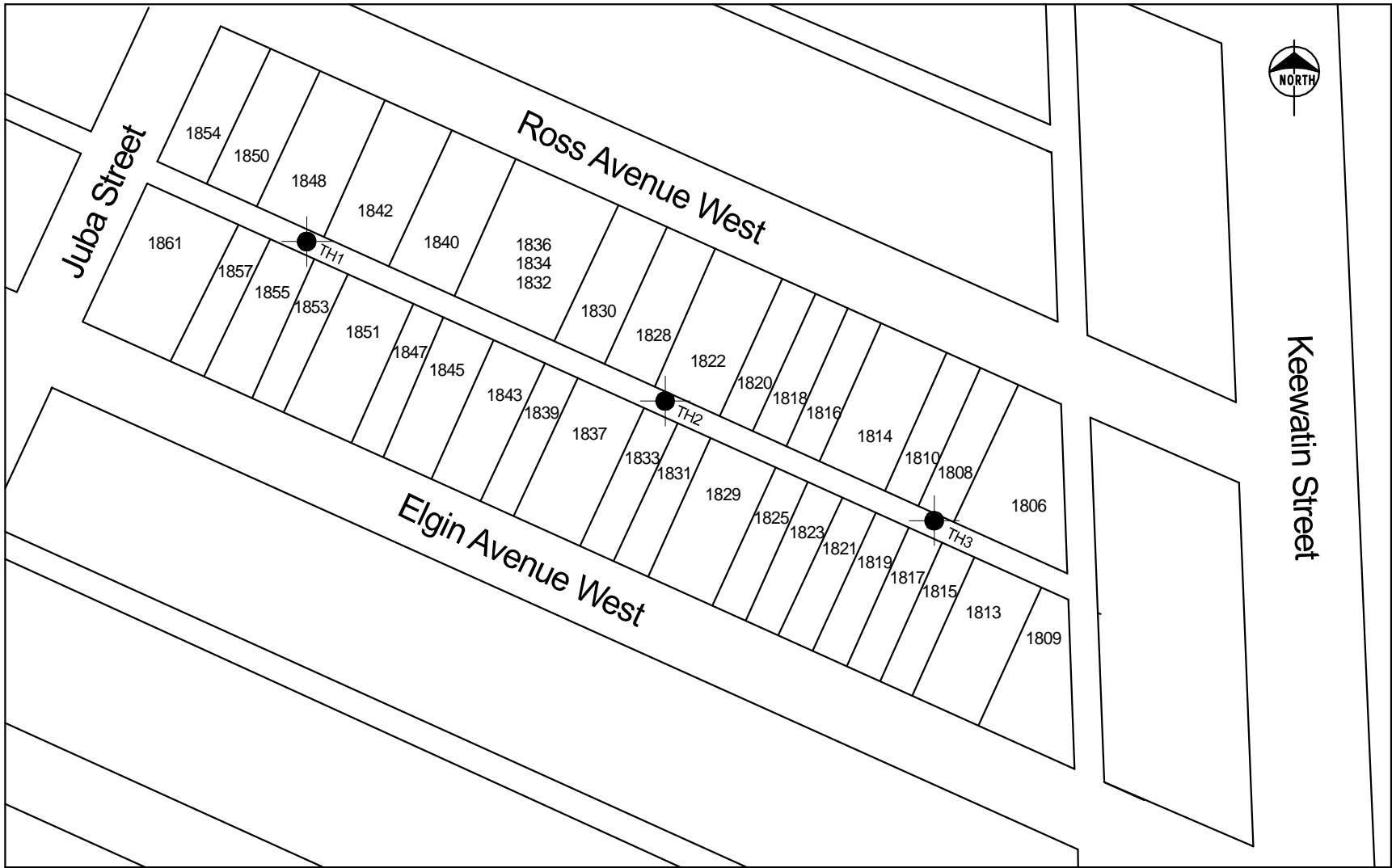
Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Horace/Eugenie St. East of Rue Youville.
 Testhole Location: 3 m north and 4 m east of the southeast corner of lot 441 Eugenie St.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar



**Ross/Elgin Ave.
Between Juba St. and Keewatin St.
Project No. 063048-Back Lane Local Improvements**

Testhole ID	Testhole Location	Pavement Structure Material		Sample Description	Sample Depth (m)	Moisture Content (%)	Particle Size Analysis				Atterberg Limits		
		Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	1 m west and 1.5 m south of the southwest corner of lot 1842 Ross Ave.	Granular	150	N/A	-	-	-	-	-	-	-	-	-
TH2	3 m east and 1.5 m south of southwest corner of lot 1822 Ross Ave.	Granular	150	Clay	0.9	34.9	0.0	3.1	14.4	82.5	81	24	57
TH3	4 m east and 1.5 south of the southeast corner of lot 1808 Ross Ave.	Granular	150	Clay	1.2	21.1	0.0	6.5	69.7	23.8	24	16	8



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Established in 1923

Project No.: SEG-706

Drawn by: FL

Figure: 1

Date: June 5, 2007

Reviewed by: RH

Scale: NTS

Testhole Location Plan,
Project No. 063048,
Back Lane Local Improvements
Ross/Elgin Ave., Between Juba St. and Keewatin St.
Winnipeg, Manitoba

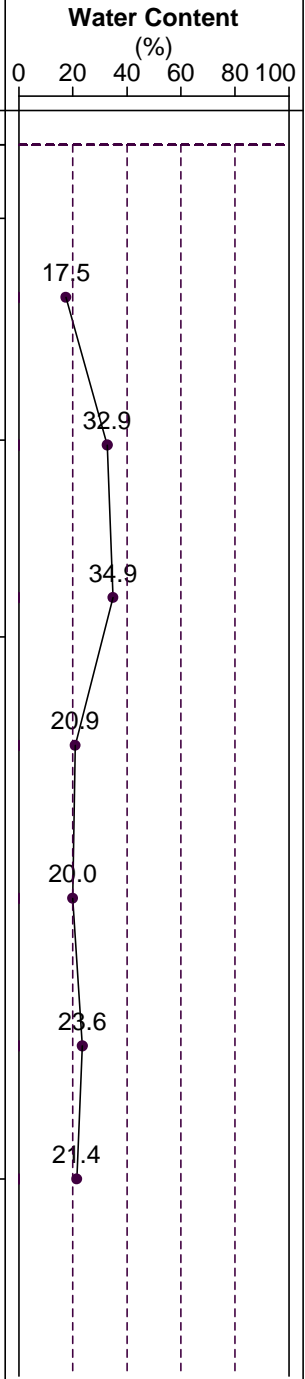
TESTHOLE TH1



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Ross/Elgin Ave. Between Juba St. and Keewatin St.
 Testhole Location: 1 m west and 1.5 m south of the southwest corner of lot 1842 Ross Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar

Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
0.0		Ground Surface	
		Granular Base - 20 mm maximum aggregate size.	
		Fill - mixture of granular, clay, silt. - trace organic.	
0.5			
		Clay - black, stiff, moist, high plasticity.	
1.0			
		Silt - tan, soft, moist, low to intermediate plasticity. - trace layers of brown clay below 1.9 m.	
1.5			
2.0			
2.1			
		<ul style="list-style-type: none"> No water seepage or sloughing were observed during or after the completion of drilling. Drilling terminated at a depth of 2.1 m 	
2.5			

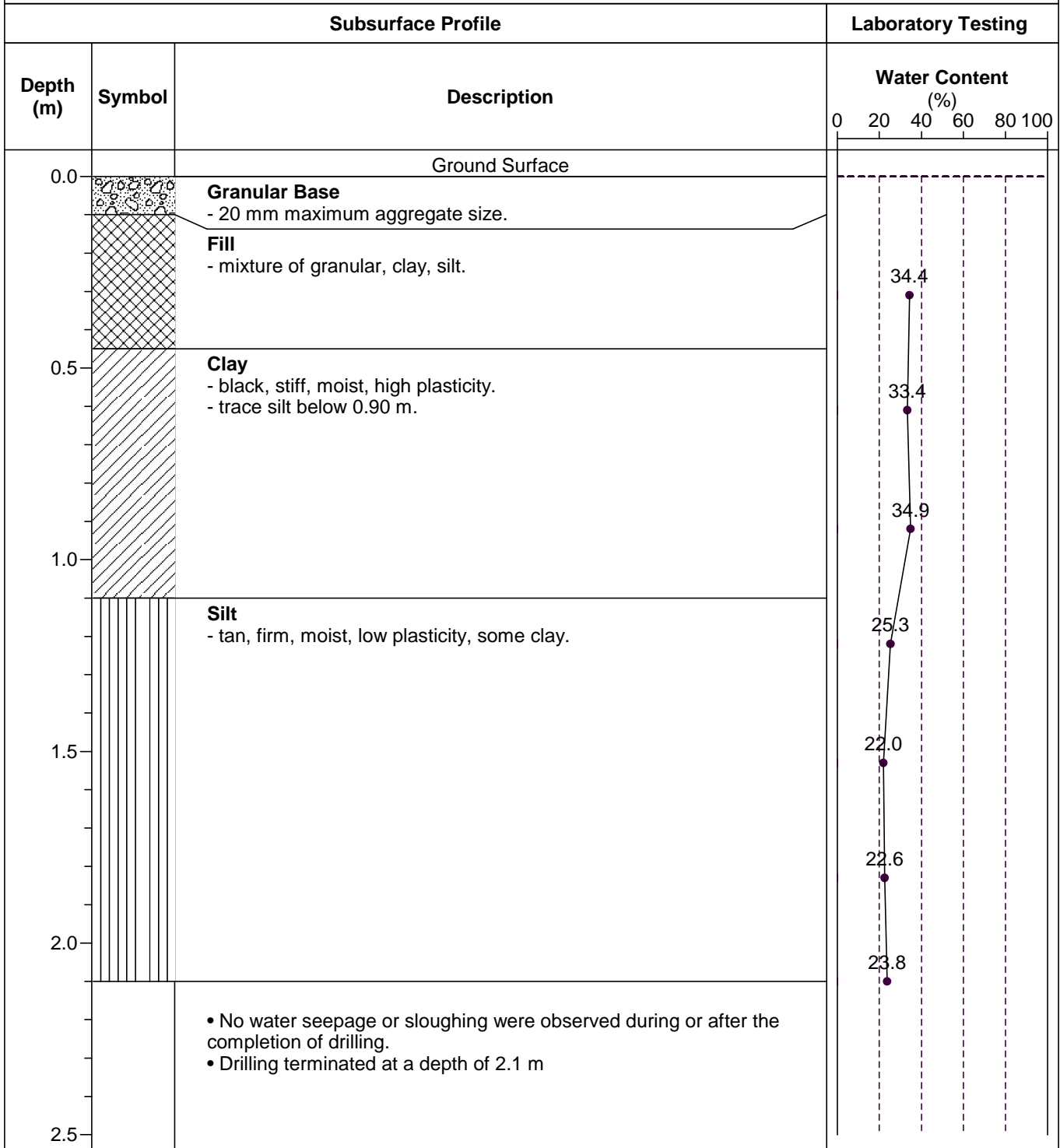


TESTHOLE TH2



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Ross/Elgin Ave. Between Juba St and Keewatin St.
 Testhole Location: 3 m east and 1.5 m south of the southwest corner of lot 1822 Ross Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar



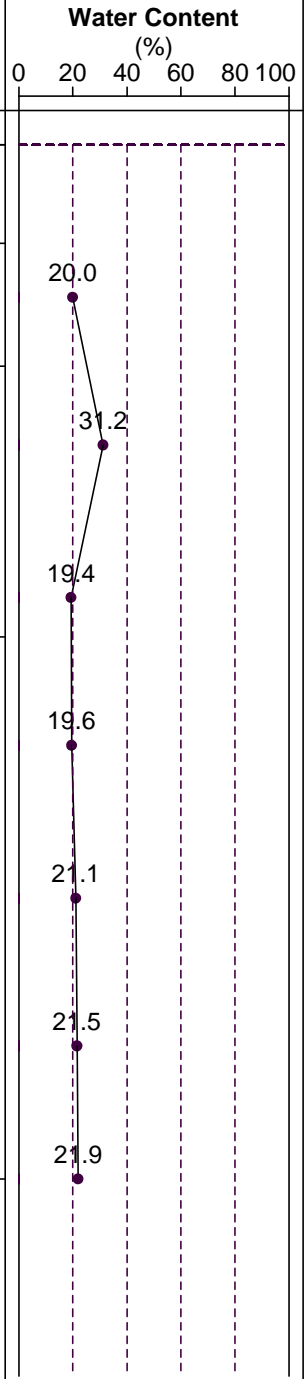
TESTHOLE TH3

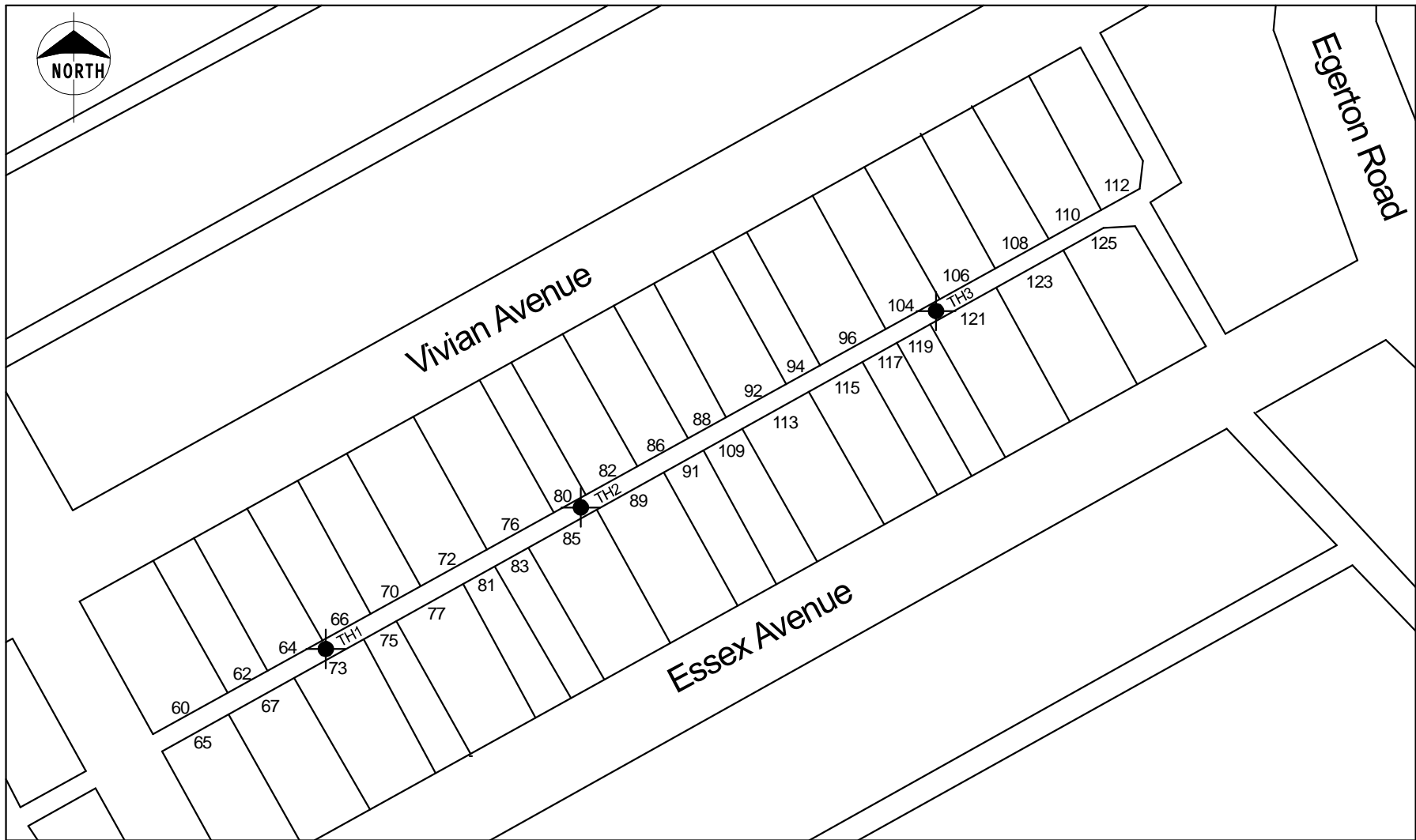


Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Ross/Elgin Ave. Between Juba St and Keewatin St.
 Testhole Location: 4 m east and 1.5 m south of the southeast corner of lot 1808 Ross Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Farouk Fourar

Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
0.0		Ground Surface	
		Granular Base - 20 mm maximum aggregate size.	
		Fill - mixture of granular, clay, trace silt.	
0.5		Clay - grey, stiff, moist, high plasticity. - some layers of silt below 0.8 m.	
1.0		Silt - tan, soft to firm, moist, low plasticity, some clay.	
1.5			
2.0			
2.1		<ul style="list-style-type: none"> No water seepage or sloughing were observed during or after the completion of drilling. Drilling terminated at a depth of 2.1 m. 	
2.5			





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Established in 1923

Project No.: SEG-706

Drawn by: FL

Figure: 1

Date: June 6, 2007

Reviewed by: RH

Scale: NTS

Testhole Location Plan,
Project No. 063048,
Back Lane Local Improvements,
Vivian/Essex Ave., Between Des Meurons St. and Egerton Rd.
Winnipeg, Manitoba.

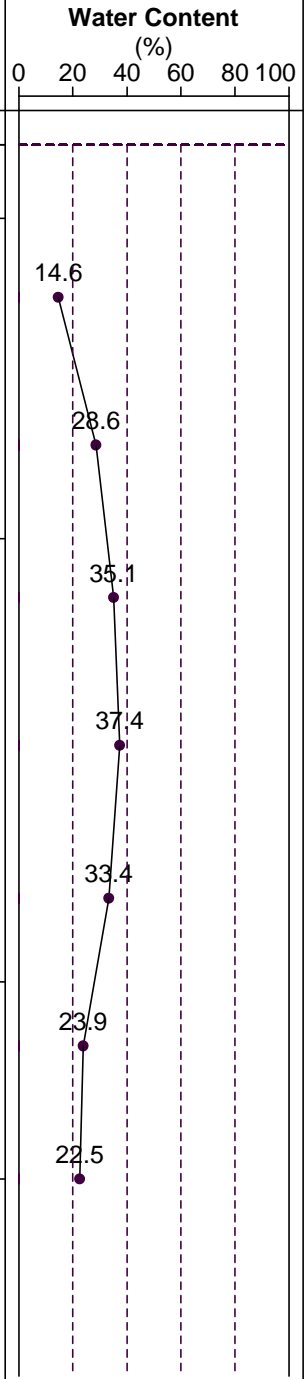
TESTHOLE TH1



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Vivian/ Essex Ave. between Des Meurons St. to Egerton Rd.
 Testhole Location: 2 m south of the southwest corner of lot 66 Vivian Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Olya Babashko

Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
0.0		Ground Surface	
		Granular Base - 20 mm maximum aggregate size.	
		Fill - mixture of granular and clay.	
0.5			
		Clay - black, stiff, moist, high plasticity. - grey below 1.4 m.	
1.0			
		Silt - tan, soft, moist, non to low plasticity, some clay.	
1.5			
2.0			
		<ul style="list-style-type: none"> No water seepage or sloughing were observed during or after the completion of drilling. Drilling terminated at a depth of 2.1 m. 	
2.5			



TESTHOLE TH2



Project Name: Project No. 063048 - Back Lane Local Improvements
Client: SEG Engineering Inc.
Site: Vivian/ Essex Ave. between Des Meurons St. to Egerton Rd.
Testhole Location: 1 m west and 1 m south of the southeast corner of lot 80 Vivan Ave.

Date Drilled: May 28, 2007
Depth of Testhole: 2.1 m
Logged by: Olya Babashko

Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
0.0		Ground Surface	
		Granular Base - 20 mm maximum aggregate size.	
		Fill - mixture of granular, silt, clay.	
		Clay - grey, firm, moist, high plasticity . - trace silt layers below 2.0 m.	
2.1		<ul style="list-style-type: none"> No water seepage or sloughing were observed during or after the completion of drilling. Drilling terminated at a depth of 2.1 m. 	

Depth (m)	Water Content (%)
0.1	20.5
0.4	30.9
0.9	36.2
1.3	35.6
1.6	33.9
1.9	35.9
2.1	27.8

TESTHOLE TH3



Project Name: Project No. 063048 - Back Lane Local Improvements
 Client: SEG Engineering Inc.
 Site: Vivian/ Essex Ave. between Des Meurons St. to Egerton Rd.
 Testhole Location: 1 m west and 1 m south of the southwest corner of lot 106 Vivan Ave.

Date Drilled: May 28, 2007
 Depth of Testhole: 2.1 m
 Logged by: Olya Babashko

