GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	18.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.91	Datum:	Chart
Logged By	TDS		

BOREHOLE 1 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	6	0		Grey silt and sand with some crushed rock FILL
1	2	S	11	100		
					1.22	
	3	S	52	0	-3.13	Reddish brown SAND with trace silt, gravel and organics.
2					2.59	
	4	S	64	270	-4.50	Reddish brown highly weathered to weathered SANDSTONE BEDROCK
3	5	S	49	340		
4	6	HQ	0	410		
5	7	S	18	410		
6	8	HQ	0	150		
7	9	S	33	300		
8	10	HQ	0	100		
	11	S	100+	100		
	12	HQ	0	1320		
9						
10	13	HQ	0	910		
11					11.13	-13.04
						End of borehole at 11.13 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

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BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	16.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.11	Datum:	Chart
Logged By	TDS		

BOREHOLE 2 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	27	390		Black SILT with trace sand and organics.
1	2	S	6	360	1.25	Grey brown coarse SILT trace gravel and organics.
	3	S	8	360	1.52 -2.43	Reddish brown SAND with trace silt, gravel and organics.
2	4	S	9	610	2.17 -3.28	Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
3	5	S	35	300		
4	6	S	47	400		
5	7	S	28	440	4.42 -5.53	Reddish brown highly weathered to weathered SANDSTONE BEDROCK
6	8	S	45	510		
7	9	S	14	510		- Bedrock was noted to become more competent at 7.67 metres.
8	10	S	11	240		
	11	S	9	300		
9	12	S	24	430		
	13	HQ	0	250		
10	14	S	100+	200		
	15	HQ	0	640		
11	16	HQ	0	150		
12	17	HQ	0	1140	12.80 -13.91	End of borehole at 12.80 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	16.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.38	Datum:	Chart
Logged By	TDS		

BOREHOLE 3 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	8	600	0.30	Black SILT with trace sand and organics.
	2	S	9	300	0.76	Grey brown coarse SILT trace gravel and organics.
1	3	S	28	390	1.20	Reddish brown SAND with trace silt, gravel and organics.
2	4	S	44	310		Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
	5	S	100+	300		
3	6	HQ	0	50		Reddish brown highly weathered to weathered SANDSTONE BEDROCK
	7	S	100+	310		
4	8	HQ	0	0		
	9	S	100+	335		
5	10	HQ	0	150		
6	11	S	100+	150	6.38 -7.76	End of borehole at 6.38 metres

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	16.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.28	Datum:	Chart
Logged By	TDS		

BOREHOLE 4 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	4	450	0.23	Black SILT with trace sand and organics.
	2	S	3	460	0.35	Grey brown coarse SILT trace gravel and organics.
1	3	S	18	400	1.17	Reddish brown SAND with trace silt, gravel and organics.
2	4	S	32	410	1.78	Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
	5	S	37	310		Reddish brown highly weathered to weathered SANDSTONE BEDROCK
3	6	S	20	420		
4	7	S	25	400		
5	8	S	49	440		
6	9	S	53	390	6.71 -7.99	End of borehole at 6.71 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	17.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-0.89	Datum:	Chart
Logged By	TDS		

BOREHOLE 5 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	4	570	0.23	Black SILT with trace sand and organics.
	2	S	10	0	0.43	Grey brown coarse SILT trace gravel and organics.
1					1.32	
	3	S	26	500		Reddish brown SAND with trace silt, gravel and organics.
2	4	S	33	400	1.98 -2.87	Reddish brown highly weathered to weathered SANDSTONE BEDROCK
3	5	S	50	330		
4						
5	6	S	40	440		
6						
7	7	S	71	400		
8	8	HQ	0	450		
9	9	HQ	0	860		
10						
11	10	HQ	0	1400	11.73 -12.62	End of borehole at 11.73 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	17.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-0.96	Datum:	Chart
Logged By	TDS		

BOREHOLE 6 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	0	50		Black SILT with trace sand and organics.
					0.66	
1	2	S	12	150	0.96	Grey brown coarse SILT trace gravel and organics.
					1.62	
	3	S	32	410	1.98 -2.94	Reddish brown SAND with trace silt, gravel and organics.
2	4	S	33	360	2.08 -3.04	Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
3	5	S	31	510		Reddish brown highly weathered to weathered SANDSTONE BEDROCK
4	6	S	41	500		
5	7	S	58	540		
6	8	HQ	0	810		
7	9	HQ	0	810		
8						
9	10	HQ	0	1020		
10						
11					12.04 -13.00	End of borehole at 12.04 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
GROUND ENGINEERING & MATERIALS TECHNOLOGY
Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	17.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.09	Datum:	Chart
Logged By	TDS		

BOREHOLE 7 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	1	610		Black SILT with trace sand and organics.
	2	S	10	400		
1					1.22	
	3	S	8	50	-0.31	Reddish brown SAND with trace silt, gravel and organics.
	4	S	4	430		
2					2.29	
	5	S	8	170		Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
3	6	S	31	100		
					3.73	
4	7	HQ	0	580	-4.92	Reddish brown highly weathered to weathered SANDSTONE BEDROCK
5	8	S	14	390		
	9	S	42	410		
6	10	HQ	0	250		
7	11	HQ	0	580		
8						
9	12	HQ	0	410		
10						
11	13	HQ	0	760	11.73 -12.82	End of borehole at 11.73 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

GEMTEC LIMITED
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Fredericton, Moncton, Bathurst, Grand-Sault, N.B. Canada

BOREHOLE LOGS

Client	Public Works and Governement Services Canada	Proj No.	6489.34
Project	Geotechnical Investigation - Le Goulet Wharf	Date Drilled	17.Oct.2013
Location	Le Goulet, New Brunswick		
Ground Level, m	-1.07	Datum:	Chart
Logged By	TDS		

BOREHOLE 8 — Page 1 of 1

Undrained Shear Strength - kPa: 0, 25, 50, 75, 100

○ Unconfined Compression ■ Pocket Penetrometer
◎ Field Vane Test ◎ Remoulded

Water Content & Atterburg Limits: w, w_P, w_L

Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

DEPTH m	No	TYPE	N (RQD)	REC (mm)	LOG	DESCRIPTION
0	1	S	0	610		Black SILT with trace sand and organics.
	2	S	2	610		
1	3	S	4	600		
	4	S	2	270	1.98 -3.05	
2					2.14 -3.25	Grey brown coarse SILT trace gravel and organics.
	5	S	12	410		Reddish brown SAND with trace silt, gravel and organics.
3	6	S	7	280		
4	7	S	26	610	4.41 -5.48	
	8	S	17	540		Reddish brown silty sand, some gravel and sandstone cobbles with trace clay (GLACIAL TILL)
5	9	S	36	420		
	10	S	16	490	5.69 -7.76	
6						Reddish brown highly weathered to weathered SANDSTONE BEDROCK
7	11	S	23	400		
8	12	S	34	300		
	13	S	100+	340	11.73 -12.80	End of borehole at 11.73 metres.

GEOTG 6489.34.GPJ GEMTEC 2004.GDT 10/24/13

Public Works and Government Services Canada
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REGISTERED PROFESSIONAL ENGINEER — Province of New Brunswick — #2901 — R. B. Vale — 2014.12.10 DATE — Ingénieur de la province du Nouveau-Brunswick — INGÉNIEUR ENREGISTRÉ

01	ISSUED FOR TENDER/APPEL D'OFFRES	DEC. 10 2014
revisions		date

project / projet

TRAINING WALL RECONSTRUCTION
RECONSTRUCTION DU MUR DE DIRECTION
STRUCTURE 302 &304
LE GOULET, NB

drawing / dessin

BOREHOLES
TROUS DE FORAGE

designed	R. VALE	conçu
date	2014.12.10	
drawn	P.LEBLANC	dessiné
date	DECEMBER/DECEMBRE 2014	
approved	JMC	approuvé
date	2014.12.10	
Tender		Soumission
PWGSC Project Manager	2014/12/11 Administrateur de projets TPSGC	

project number / no. du projet: R.044301.001

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