



# West 18<sup>th</sup> Street Enterprises

Proposed Commercial Development Lot 3, Block 2, Plan 981 6014, 525 St. Albert Road St. Albert, Alberta Site Plan

Plate: 13

Job No: H0806 -168 Date: April 19, 2012

#### **Explanation of Field and Laboratory Test Data**

The following pages are an explanation of the terms and symbols used in the Test Hole Log

### Soil Profile and Description

Soil types are described by the Modified Unified Soil Classification System. (See Plate 2 for terms and symbols)

Soils classified by particle size fall in the following ranges:

BOULDERS - greater than 200 mm SAND - 0.08 mm to 5 mm COBBLES - 75 mm to 200 mm SILT - 0.002 mm to 0.08 mm GRAVEL - 5 mm to 75 mm CLAY - finer than 0.002 mm

Additional graphic symbols include:

⇒ seepage
▼ water level surface

#### **Soil Sample Type**

Standard Penetration Sample (D)

Undisturbed Sample (Shelby) (U)

Bag Sample

#### **Penetration Resistance**

Field test indication number of blows (N) of a 140 pound hammer dropping 30 inches (76cm) required to drive a 2 inch (5 cm) O.D. open end sampler a distance of 1 foot (30 cm) from 0.5 to 1.5 feet (15 to 45 cm) into the undisturbed soil. This test is outlined in A.S.T.M., D1568.

#### **Miscellaneous Tests**

In this column are summarized results of all the laboratory test as indicated by the following symbols:

HVR Hydrocarbon Vapour Readings, ppm or % LEL

\* MA Mechanical grain size analysis

G Specific gravity

k Coefficient of permeability

PP Pocket penetrometer strength kg/cm2

\* q Triaxial compression test

\* C Consolidation test

Qu Unconfined compressive strength kg/cm2

SO<sub>4</sub> Soluble sulphate concentration

γ Bulk unit weight

γd Dry unit weigh

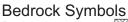
\* Tests normally summarized on separate data sheets



Hagstrom Geotechnical Services Ltd.

# Modified Unified Classification System For Soils

М	ajor D	ivision	Group Symbol	Graph Symbol	1			y Classification Criteria
sieve)	coarse than re	Clean Gravels	GW	5 · 4 · 5 · 5	Red	Well graded gravels, little or no fines	$C_{U} = (D_{60}/D_{10} + D_{60}/D_{10})$ $D_{30}^{2}/(D_{10}*D_{60})$	
200 \$	ravels in half co larger th 4 sieve	(little or no fines)	GP		Red	Poorly graded gravels, and gravel sand mixtures, little or no fines	Not meeting requirement	ts
oils r than	Gravels more than half coars grains larger than No. 4 sieve	Dirty Gravel (with some fines)	GM		Yellow	Silty gravels, gravel-sand-silt mixtures	Content of fines	Below "A" line P.I. less than 4
Coarse-Grained Soils alf by weight larger tha	more gra	(with some lines)	GC		Yellow	Clayey gravels, gravel-sand-(silt) clay mixtures	exceeds 12%	Above "A" line P.I. more than 7
e-Gra weigh	ine	Clean Sands	SW		Red	Well graded sands, gravely sands, little or no fines	$C_U = (D_{60}/D_{10})^2$ $D_{30}^2/(D_{10}^*D_{60})^2$	
Coars alf by	Sands han half f smaller th 4 sieve	(little or no fines)	SP		Red	Poorly graded sands, little or no fines	Not meeting requirement	
than h	Sands more than half fine grains smaller than No. 4 sieve	Dirty Sands	SM		Yellow	Silty sands, sand-silt mixtures	Content of fines	Below "A" line P.I. less than 4
(more		(with some fines)	SC		Yellow	Clayey sands, sand-(silt) clay mixtures	exceeds 12%	Above "A" line P.I. more than 7
0 sieve)	Silts below "A" line negligible organic content	W <sub>L</sub> < 50%	ML		Green	Inorganic silts and very fine sands, rock flour, silty sands of slight plasticity	Classificatio upon plastic	
oils sses 20	Sil below ' negli organic	W <sub>L</sub> > 50%	МН		Blue	Inorganic silts, micaceous or diatomaceous, fine sandy or silty soils		
Fine-Grained Soils alf by weight passe	Clays above "A" line negligible organic content	W <sub>L</sub> < 30%	CL		Green	Inorganic clays of low plasticity, gravelly, sandy, or silty clays, lean clays		
e-Gra by we	Clays ve "A" li gible org	30% < W <sub>L</sub> < 50%	CI		Green- Blue	plasticity, silty clays		
Fin n half	abo negliç	W <sub>L</sub> > 50%	СН		Blue	Inorganic clays of high plasticity		
Fine-Grained Soils (more than half by weight larger than 200 sieve)	Organic Silts & Clays bellow "A" line on chart	W <sub>L</sub> < 50%	OL		Green	Organic silts and organic silty clays of low plasticity	fine content determined	he nature of the has not been it is designated
	Org Silts 8 bellow on o M <sup>r</sup> > 20%				Blue	Organic clays of high plasticity	a mixture of clay	f "F". E.G. SF is f sand with silt or
I	Highly Orga	anic Soils	PI		Orange	Peat and other highly organic soils	Strong color often fibrous	or odor, and texture



Bedrock (Undifferrentiated)

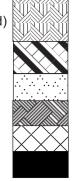
Shale

Sandstone

Siltstone

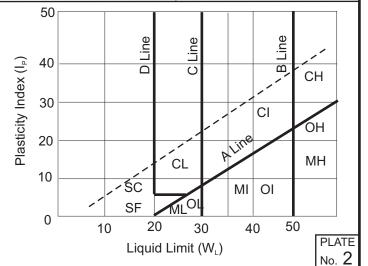
Fill

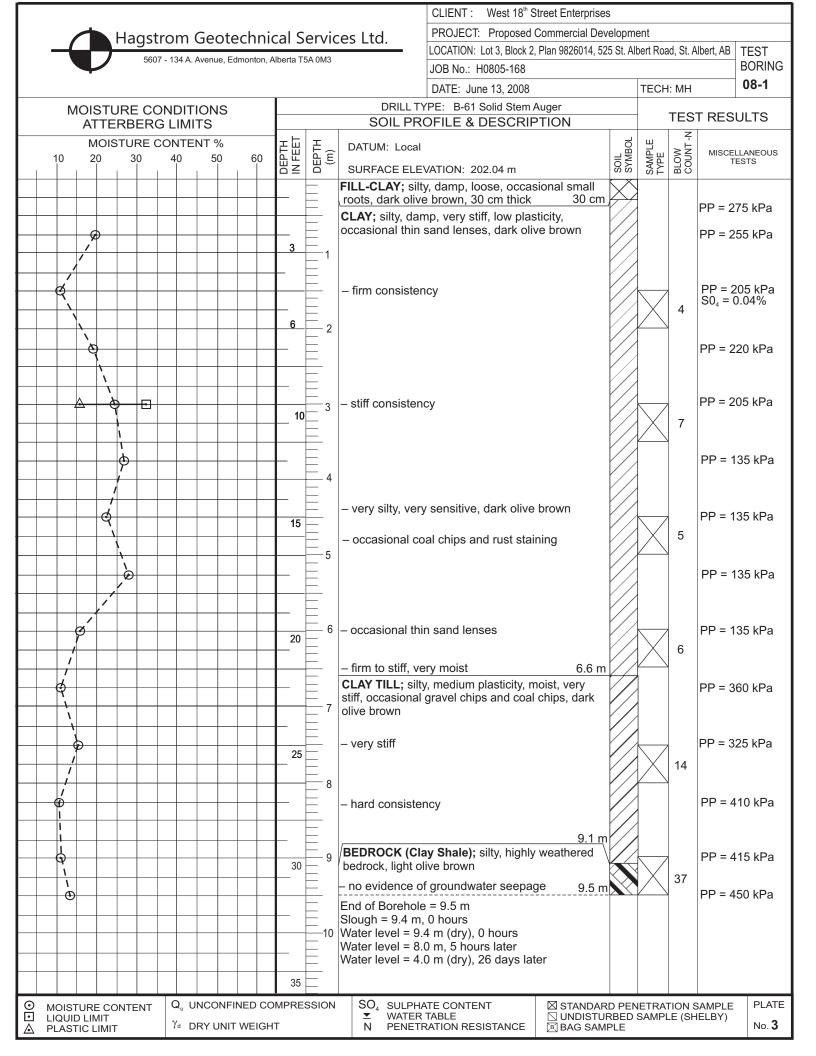
Coal



**Hagstrom Geotechnical Services Ltd.** 

5607 - 134 A. Avenue, Edmonton, Alberta T5A 0M3







CLIENT: West 18<sup>th</sup> Street Enterprises PROJECT: Proposed Commercial Development LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB | TEST

JOB No.: H0805-168

**BORING** 08-2

			DATE: June 13, 2008	TECH: MH 08-2					
	MOISTURE CONDITIONS		DRILL TYPE: B-61 Solid Stem Auger	TEST RESULTS					
	ATTERBERG LIMITS		SOIL PROFILE & DESCRIPTION		I RESULTS				
	MOISTURE CONTENT % 10 20 30 40 50 60	DEPTH IN FEET DEPTH (m)	DATUM: Local SURFACE ELEVATION: 202.62 m	SAMPLE TYPE BLOW COUNT -N	MISCELLANEOUS TESTS				
1				% <u>F</u> B S					
			FILL-CLAY; silty, very stiff, medium plasticity, dark brown, 110 cm thick						
			dark brown, 110 cm thick		PP = 480 kPa				
					DD 5501D				
	1 9 1 1 1 1 1	$\begin{bmatrix} \\ 3 \end{bmatrix} = \begin{bmatrix} \\ \end{bmatrix}$			PP = 550 kPa				
		1	- topsoil lense from 1.0 to 1.1 m						
		<b>-</b>	CLAY; silty, stiff, low plasticity, occasional silt lenses, light olive brown						
	<u> </u>		lienses, light olive brown	1	PP = 410 kPa				
	1	<u> </u>			$S0_4 = 0.18\%$				
	1	6 2	[						
					PP = 270 kPa				
				1	FF - 210 KF				
	\								
	\				DD = 400 kD=				
	9	10 3	- stiff, moist	1	PP = 120 kPa				
	<del>                                     </del>	<b>⊢</b>							
		<b> </b>			PP = 135 kPa				
	<u> </u>	4		1					
	/ / /								
			[		PP = 100 kPa				
		15			10010				
			- softer with depth, very moist						
	1	5	- softer with depth, very moist						
	9				PP = 155 kPa				
	<del>                                     </del>	$\vdash \vdash$							
		20 6	- occasional silt lenses		PP = 170 kPa				
	<del>                                     </del>	<b>-</b> =							
	<del>                                      </del>	_ =	- clay till like		PP = 360 kPa				
		7	7.1 m						
			CLAY TILL; silty, trace of sand, very stiff, moist,						
			medium plasticity, occasional gravel chips and		PP = 305 kPa				
	Y	25	coal chips, dark olive brown	1					
	i								
		8							
	<b>─</b>  ♥	F E	//	1	PP = 305 kPa				
			- very stiff, medium plasticity, damp, dark brown						
_	<del>                                      </del>	H E	no evidence of groundwater seepage 9.0 m						
	<b>(b)</b>	30 9	End of Borehole = 9.0 m	1	PP = 325 kPa				
		<b>⊢</b>	Slough = 8.9 m, 0 hours						
			Water level = 8.9 m (dry), 0 hours						
		L E	Water level = 5.2 m, 1 hour later Water level = 4.0 m, 26 days later						
		10	vvaler lever – 4.0 m, 20 days faler						
		35							
_	MOISTURE CONTENT Q UNCONFINED CO	MPRESSION	SO₄ SULPHATE CONTENT ⊠ STANDARD PE	NETRATION	SAMPLE PLA				
	LIQUID LIMIT		▼ WATER TABLE						

#### CLIENT: West 18<sup>th</sup> Street Enterprises PROJECT: Proposed Commercial Development Hagstrom Geotechnical Services Ltd. LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB **TEST** 5607 - 134 A. Avenue, Edmonton, Alberta T5A 0M3 **BORING** JOB No.: H0805-168 08-3 TECH: MH DATE: June 13, 2008 DRILL TYPE: B-61 Solid Stem Auger MOISTURE CONDITIONS TEST RESULTS SOIL PROFILE & DESCRIPTION ATTERBERG LIMITS MOISTURE CONTENT % DEPTH IN FEET DEPTH (m) SOIL SYMBOL SAMPLE TYPE DATUM: Local BLOW MISCELLANEOUS 10 30 40 60 TESTS SURFACE ELEVATION: 200.70 m FILL-CLAY; some topsoil, silty, moist, loose, dark brown, 110 cm thick 0 PP = 545 kPa - poorly compacted PP = 390 kPa 1.1 m 1 CLAY; silty, damp, very stiff, low plasticity, light olive brown PP = 375 kPa $S0_4 = 0.04\%$ ١ very stiff PP = 220 kPa PP = 240 kPa $S0_4 = 0.02\%$ very silty, low plasticity, light olive brown 10 10 PP = 325 kPa 4 PP = 185 kPa silty, low plasticity, occasional silt lenses 15 5 ı PP = 120 kPa **®** ١ 6 stiff PP = 155 kPa 20 7 PP = 135 kPa very silty, sensitive, low plasticity, dark olive brown PP = 120 kPa 25 13 CLAY TILL; silty, trace of sand, medium plasticity, damp, occasional gravel chips and coal chips, dark 8 brown PP = 305 kPa very stiff 9.3 m BEDROCK (Clay Shale); silty, hard consistency, PP = 290 kPa Ð 30 highly weathered bedrock, dark grey 24 no evidence of groundwater seepage 9.5 m ቃ PP = 545 kPa End of Borehole = 9.5 m Slough = 9.4 m, 0 hours Water level = 9.4 m (dry), 0 hours Water level = 5.5 m, 4 hours later Water level = 6.4 m, 26 days later Q<sub>u</sub> UNCONFINED COMPRESSION SULPHATE CONTENT PLATE ☑ STANDARD PENETRATION SAMPLE MOISTURE CONTENT • LIQUID LIMIT WATER TABLE □ UNDISTURBED SAMPLE (SHELBY)

PENETRATION RESISTANCE

BAG SAMPLE

No. **5** 

 $\gamma_{\text{d}}$  DRY UNIT WEIGHT

PLASTIC LIMIT

## Hagstrom Geotechnical Services Ltd. 5607 - 134 A. Avenue, Edmonton, Alberta T5A 0M3

PROJECT: Proposed Commercial Development

CLIENT: West 18<sup>th</sup> Street Enterprises

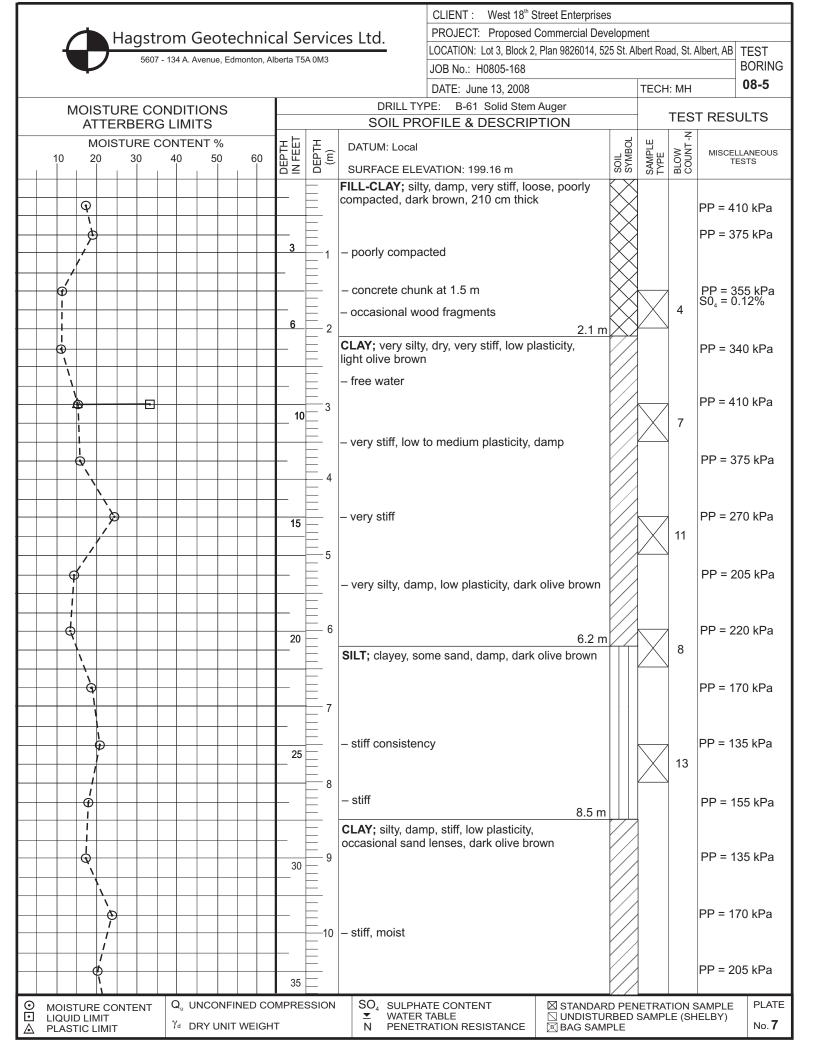
LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB

JOB No.: H0805-168

**TEST BORING** 

08-4

		DATE: June 13, 2008	TECH: MH	08-4	
MOISTURE CONDITIONS ATTERBERG LIMITS		DRILL TYPE: B-61 Solid Stem Auger SOIL PROFILE & DESCRIPTION		T RESULTS	
MOISTURE CONTENT %  10	DEPTH IN FEET DEPTH (m)	DATUM: Local SURFACE ELEVATION: 200.57 m	SAMPLE TYPE BLOW COUNT-N	IISCELLANEOUS TESTS	
		FILL-CLAY; silty, damp, occasional topsoil lenses,		= 460 kPa	
Ø I		dark brown, 100 cm thick	PP	= 340 kPa	
<u>'</u>				= 475 kPa	
Ĭ Ĭ	3	1.0 m		- 473 KFa	
	L ⊨'	CLAY; very silty, dry, low plasticity, very stiff, light olive brown			
		light onve brown	PD	= 410 kPa	
Ĭ				- 410 Ki a	
	6 2				
			PP	= 305 kPa	
		- very stiff			
	$\vdash \vdash$		1		
	3	\//,		<sup>2</sup> = 290 kPa <sub>4</sub> = 0.04%	
	_ 10		]	<del>-</del>	
		- very stiff, medium plasticity	]   PP	) = 240 kPa	
	4				
			PF	P = 185 kPa	
	15 —	- light olive brown, firm to stiff consistency		<sub>4</sub> = 0.10%	
N N			1		
	5		]		
				P = 170 kPa	
		- very moist, low plasticity, dak olive brown	]		
	6	\// <sub>/</sub>		- 405 LD-	
⊕	20			' = 135 kPa	
			1		
				= 185 kPa	
1	7			- 105 KFa	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			]		
1			PP	= 140 kPa	
Ĭ,	25	- firm to stiff, dark olive brown			
	8	to stan, dank silve brown			
			PF	) = 155 kPa	
		8.5 m  CLAY TILL; silty, trace of sand, very stiff, moist,			
	$\vdash \vdash$	medium plasticity, occasional gravel chips and			
	30 - 9	coal chips, dark olive brown	) PP	e = 340 kPa	
		Lyamy atiff			
		- very stiff	1		
<del>                                     </del>	$\vdash \vdash$	- no evidence of groundwater seepage 10.5 m	PP	= 340 kPa	
	10		]		
		Slough = 10.3 m, 0 hours   Water level = 10.3 m (dry), 0 hours			
<b>│                                    </b>	35	Water level = 8.2 m, 1.5 hours later	f PP	e = 370 kPa	
MOISTURE CONTENT		Water level = 6.7 m (dry), 26 days later   SO₄ SULPHATE CONTENT   STANDARD PER	JETDATION CASA	PLE PLATE	
LIQUID LIMIT		▼ WATER TABLE □ UNDISTURBED			
⚠ PLASTIC LIMIT 7d DRY UNIT WEIGH	ı	N PENETRATION RESISTANCE BAG SAMPLE		190.	



	Hagstrom Geotechnical Services Ltd.														CLIENT: West 18th Street Enterprises  PROJECT: Proposed Commercial Development							
		1		На	ast	tro	m (	Geo	ote	chr	nical <sup>c</sup>	Ser	vic	<b>EVIIII</b>								
	4		-	. 10							n, Alberta				LOCATION: Lo	ot 3, Block 2, Pla	an 9826014, 52	5 St. Alk	ert Roa	d, St. A	lbert, AB	TEST .
	•	-			560	)/ - T	34 A. A	-venu	e, ⊑ar	ποπτο	i, Aiberta	DA U	IVIJ		JOB No.: H0	0805-168						30RING <b>08-5</b>
															DATE: June	13, 2008			TECH	: MH		บช-5 Con't.
	N	//OI	STI	IRF	- C		DITI	ION	IS		Т					olid Stem Aug	jer					
	11	ΑĪ	ГТЕ	RB	ER	G L	.IMI	TS	J					SOIL PRO							T RESU	JLTS
							NTEI		%		ᅴᆍᇤ	I		DATUM: Local				7	щ	BLOW COUNT -N		
	10		1010	3			ļ0		0	60	DEPTH IN FEET	-PT	(E)	DATUNI: LOCAL				SOIL	SAMPLE TYPE	NO.	MISCELI TE	ANEOUS STS
		_							Ш		ظZ	ا ا						8 8	SA	표 징		
			<u>,</u>									F	11	CLAY(Con't.); si	lty, damp, s	stiff, low pla	sticity,				PP = 20	5 kPa
			9									E	_	occasional sand	ienses, dar	rk olive brov	vn				11 - 20	JKI a
			i																			
			φ, 1								39	9	- 12	- no evidence of	groundwat	ter seepage	12.0 m				PP = 15	E kDo
												$\vdash$	- 12	End of Borehole	= 12.0 m						PP = IS	э кра
										$\top$	_			Slough = 11.9 m	, 0 hours							
										$\top$		$\vdash$	-	Water level = 11. Water level = 11.								
										+	1	E		Water level = 11			er					
	+									+	43	₽	-13		. 3,7	•						
									$\vdash$	$\dashv$	+	E										
						-			$\vdash$	+	+	E	-									
	-								$\vdash$	$\dashv$	+	F										
	+	-							$\vdash$	$\dashv$	46		-14									
	-								$\vdash$	$\dashv$	+											
										$\perp$	$\perp$	F	-									
									Ш	$\dashv$	4	E										
										$\perp$	49		- 15									
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	+									+	+	E										
	+									+	66	3	- 20									
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	98																					
	-					-			$\vdash$	$\dashv$	98		-30									
										$\dashv$	+	E										
										$\dashv$	+	F	-									
	$\perp$											E										
<u>O</u> 1	MOISTURE CONTENT Q UNCONFINED COMPRESSION											SSI	ON		E CONTENT	Т	⊠ STANDAR					PLATE
	IQUI PLAS					1	Yd D	RY L	JNIT	WEI	GHT			▼ WATER T	ABLE ATION RESIS	STANCE	∑ UNDISTUI ß BAG SAM	KBED ( PLE	SAMPL	.E (SH	⊨LBY)	No. <b>7A</b>
<u> </u>	_, ,0																					1



CLIENT: West 18th Street Enterprises PROJECT: Proposed Commercial Development

LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB

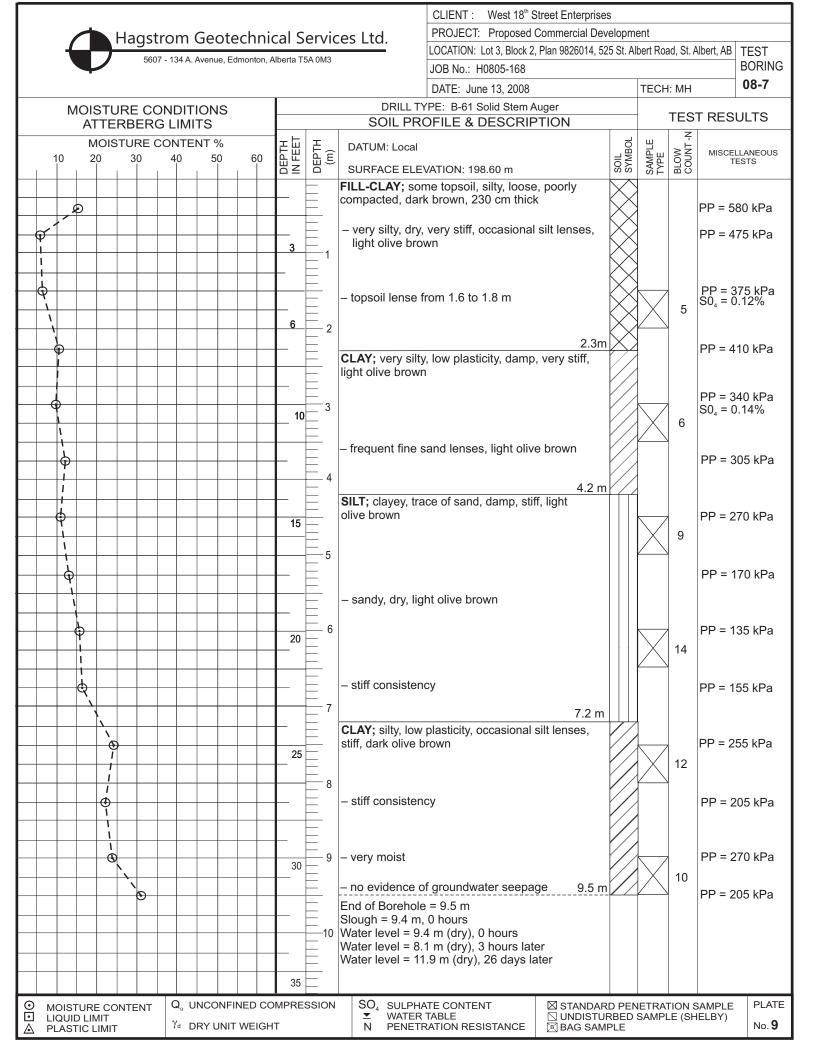
JOB No.: H0805-168

**BORING 08**-6

**TEST** 

			DATE: June 13, 2008	TECH: MH	08-6
MOISTURE CONDITIONS			DRILL TYPE: B-61 Solid Stem Auger	TEST	RESULTS
ATTERBERG LIMITS  MOISTURE CONTENT %		_	SOIL PROFILE & DESCRIPTION	7	
10 20 30 40 50 60	DEPTH IN FEET	DEPTH (m)	DATUM: Local SURFACE ELEVATION: 199.69 m	SAMPLE TYPE BLOW COUNT-N	MISCELLANEOUS TESTS
			FILL-CLAY; silty, very stiff, medium plasticity,	7 00 - 100	
Ø .			occasional topsoil lenses, dark brown, 190 cm	<	PP = 340 kPa
<u> </u>			- topsoil layer from 0.6 to 0.9 m	\	PP = 375 kPa
	3	1		<u> </u>	
<del>                                     </del>	-		<u> </u>		DD 0051D
•			- poorly compacted		PP = 305 kPa
	6		1.9 m CLAY; silty, dry to damp, very stiff, low plasticity,	4	
<del>                                     </del>	_		light olive brown	F	PP = 410 kPa
46 -			- very silty, some sand, light olive brown		PP = 205 kPa
	10	_ 3	. s., s., seme sand, iight ones blown		SO <sub>4</sub> = 0.16%
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					PP = 185 kPa
+ + + + + + + + + + + + + + + + + + + +					$S0_4 = 0.08\%$
		4			
•	15		– moist, dark olive brown		PP = 255 kPa
1 1	15				
+ + + + + + + + + + + + + + + + + + + +		5			
Ψ					PP = 205 kPa
1					
<del>-   -   -   -   -   -   -   -   -   -  </del>	20	6	- moist, occasional silt lenses		PP = 135 kPa
1					PP = 155 kPa
9		7			-F - 155 KFa
			- stiff, very moist		
<del>                                      </del>	25			F	PP = 170 kPa
1 1 1 1					
, d		8			PP = 135 kPa
7			- dark grey, very silty		1001111
	30	9	very moist, low plasticity, soft to firm		PP = 170 kPa
			9.4 m CLAY TILL; silty, trace of sand, very stiff, medium	$\frac{1}{2}$	
<b></b>			plasticity, occasional thin sand lenses and gravel	/ F	PP = 425 kPa
		10	chips, dark grey		
	_		yory stiff to hard	<b>/</b>    .	DD = 440 l-D-
	35		- very stiff to hard		PP = 410 kPa
O MOISTURE CONTENT Qu UNCONFINED COI ☐ LIQUID LIMIT	MPRE	SSION	SO₄ SULPHATE CONTENT   ▼ WATER TABLE   STANDARD P  □ UNDISTURBE	ENETRATION SA	I BY)
$\triangle$ PLASTIC LIMIT $\gamma_{\rm d}$ DRY UNIT WEIGHT	Т		N PENETRATION RESISTANCE BAG SAMPLE	2 07 WIN LE (ONE	No. <b>8</b>

PROJECT: Proposed Commendation Development			· .													CLIENT: West 18" Street Enterprises							
DURING   D					На	gs <sup>.</sup>	tro	m (	Geo	otec	hnic	cal S	erv	/ic	CS LIU.	· · · · · · · · · · · · · · · · · · ·							
MOISTURE CONDITIONS			4												LO		lan 9826014, 52	5 St. Alb	ert Roa				
DRILLITYPE: BAT SAUGH SIDMAURER   TEST RESULTS			•															-					
ATTERBERC LIMITS    10   20   30   40   50   60   60   82   60   11   12   13   14   14   14   14   14   14   14																· · · · · · · · · · · · · · · · · · ·			TECH	: MH			
NOTITURE CONTENT %   10   20   30   40   60   60   60   60   60   60   6			M							S										TEST	r resu	LTS	
Demolition pasticuts, considerable in sand very stiff, and property in pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, dark grey per pasticuts, and gravel chips, dark gravel chips, dark gravel chips, dark gravel chips, and gravel chips, and gravel chips, dark gravel chips, and gravel chips, and gravel chips, and gravel chips, and gravel chips,												<u> </u>			SOIL PROF	ILE & DESCRIPT	IUN				TREGOLIO		
Demolition pasticuts, considerable in sand very stiff, and property in pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, dark grey per pasticuts, considerable in sand lenses and gravel chips, dark grey per pasticuts, dark grey per pasticuts, and gravel chips, dark gravel chips, dark gravel chips, dark gravel chips, and gravel chips, and gravel chips, dark gravel chips, and gravel chips, and gravel chips, and gravel chips, and gravel chips,		4	0								60		H	<del>ا</del>	DATUM: Local			L 1BOL		N. TN.			
CAN TILL (Cont.); silk, trace of sand, very stiff, englished, cocasional thin sand lenses and graved chips, dark grey  1		ľ	U I	20	J I		1	iU 	50	,		E E		ت	SURFACE ELEVAT	TION: 199.69 m		SOI	SAM	BLO	TES	STS	
and gravel chips, dark grey  no evidence of groundwater seepage 12.0 m  PP = 355 kPa  Brid of Borenbele = 12.0 m  Water level = 11.4 m, 1.5 hours later  Water level = 11.3 m (dry), 26 days later  PP = 355 kPa			7											11	CLAY TILL (Con't.	.); silty, trace of san	d, very stiff,				DD 44	0.1.5	
1		9													medium plasticity, o	occasional thin sand	lenses				PP = 44	0 kPa	
December   12.0 m   Such   13 m   13 m   15 m   1		T,	١												and graver criips, d	ravei cnips, dark grey							
End of Brothele = 12.0 m of Nous Water level = 11.3 m (dry), 26 days later    Solution		- 1	- 1									39		40	– no evidence of gr	roundwater seepage	12.0 m				DD 05	- I D	
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△ PLASTIC LIMIT		LIQUIDLIMIT											SSIC	NC	SO₄ SULPHATE  ▼ WATER TAE	CONTENT							
			LIQUID LIMIT																- , avii L	_ (5)1		No. <b>8A</b>	





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LIQUID LIMIT

PLASTIC LIMIT

 $\gamma_{\text{d}}$  DRY UNIT WEIGHT

CLIENT: West 18<sup>th</sup> Street Enterprises

PROJECT: Proposed Commercial Development

LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB

JOB No.: H0805-168

TEST BORING

08-8 TECH: MH DATE: June 13, 2008 DRILL TYPE: B-61 Solid Stem Auger MOISTURE CONDITIONS **TEST RESULTS** ATTERBERG LIMITS SOIL PROFILE & DESCRIPTION MOISTURE CONTENT % DEPTH IN FEET SOIL SYMBOL SAMPLE TYPE DEPTH (m) DATUM: Local BLOW MISCELLANEOUS 10 30 40 60 TESTS SURFACE ELEVATION: 198.32 m FILL-CLAY; silty, dry, loose, poorly compacted, dark brown, 290 cm thick Q. PP = 340 kPa PP = 410 kPa frequent topsoil lenses, damp, stiff PP = 445 kPa  $S0_4 = 0.16\%$  concrete chunk at 2.0 m PP = 410 kPa PP = 340 kPa CLAY; silty, damp, stiff, low plasticity, occasional  $S0_4 = 0.08\%$ 10 silt lenses, light olive brown PP = 270 kPa 4 stiff to very stiff consistency PP = 205 kPa 15 1 5 PP = 205 kPa - dark olive brown, moist, low plasticity PP = 135 kPa 20 PP = 155 kPa silt lense from 7.2 to 7.5 m PP = 135 kPa 25 8 PP = 155 kPa PP = 135 kPa very silty, damp, dark olive brown 30 stiff consistency PP = 170 kPa 10 **(D)** groundwater seepage PP = 135 kPa Q UNCONFINED COMPRESSION SULPHATE CONTENT **PLATE** ☑ STANDARD PENETRATION SAMPLE MOISTURE CONTENT

WATER TABLE

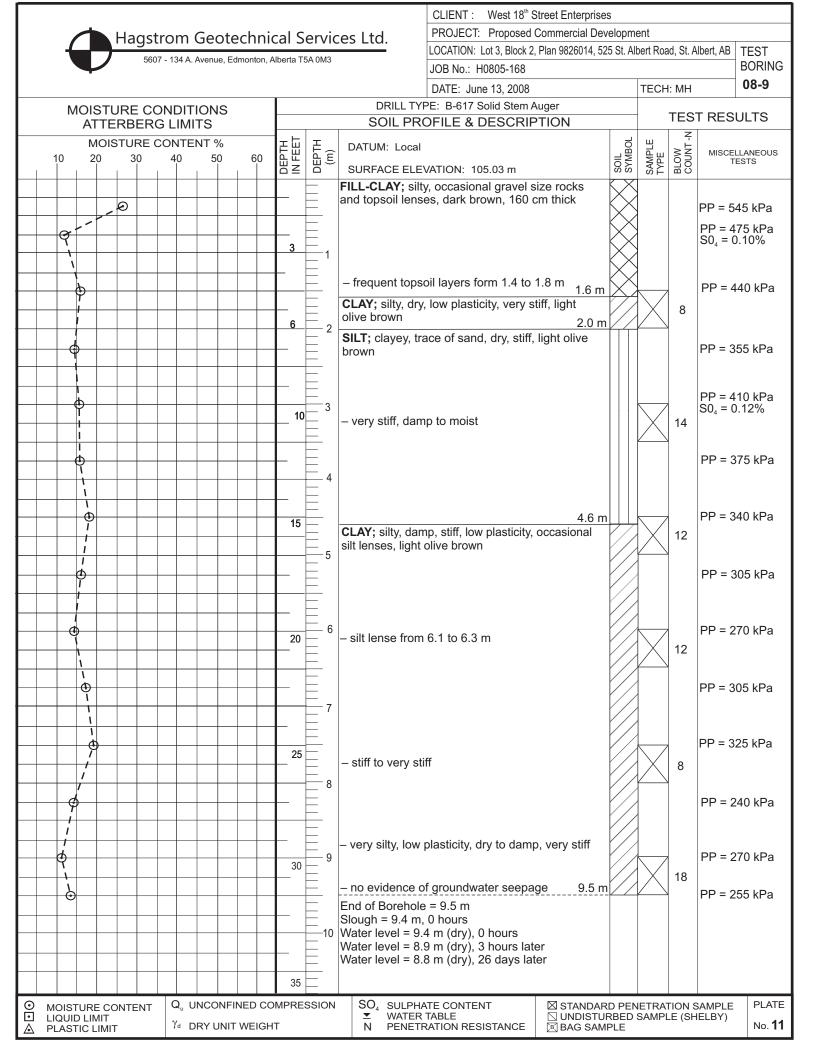
PENETRATION RESISTANCE

☐ UNDISTURBED SAMPLE (SHELBY)

BAG SAMPLE

No. 10

	<del>-</del>														CLIENT: West 18 <sup>th</sup> Street Enterprises  PROJECT: Proposed Commercial Development									
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												_					DATE: June 13, 2008			TECH	: MH		Con't.	
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			<u>a</u>														ilty, damp, stiff, low p nses, light olive brown					PP = 135 kPa		
$\sqcup$			~\													occasional SIII lef	ises, light olive browl	1					2.u <b>u</b>	
Ш				\									_			<ul> <li>stiff consistency</li> </ul>	V							
$\vdash$					<u>,</u> @								39		12			12.0 m	$\angle \angle$			PP = 13	5 kPa	
$\vdash$																End of Borehole Slough = 11.84 m								
$\vdash \vdash$																Water level = 11.	8 m (dry), 0 hours							
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CLIENT: West 18th Street Enterprises

PROJECT: Proposed Commercial Development LOCATION: Lot 3, Block 2, Plan 9826014, 525 St. Albert Road, St. Albert, AB TEST

JOB No.: H0805-168

**BORING** 

	DATE: June 13, 2008 TECH: MH									
MOISTURE CONDITIONS	DRILL TYPE: B-61 Solid Stem Auger	TEOH: WIT								
ATTERBERG LIMITS	SOIL PROFILE & DESCRIPTION	TEST RESU	JLTS							
MOISTURE CONTENT % 10 20 30 40 50 60	DATUM: Local  SURFACE ELEVATION: 195.92 m	SOIL SYMBOL TYPE BLOW COUNT-N	LANEOUS ESTS							
Q	FILL-CLAY; silty, dry, very stiff, loose, poorly compacted, dark brown, 250 cm thick	PP = 35	55 kPa							
		PP = 37								
	– poorly compacted	PP = 38	55 kPa							
	62 	PP = 32	25 kPa							
	CLAY; silty, moist, very stiff, low plasticity, light olive brown	PP = 27	70 kPa							
	10 3 - silty, damp, low plasticity, stiff	$SO_4 = 0$	.14%							
	— — — — — — — — — — — — — — — — — — —	PP = 2!	55 kPa							
	15	PP = 15	55 kPa							
	5	PP = 1	70 kPa							
	20 6 – stiff consistency, occasional thin silt lenses	PP = 22	20 kPa							
		PP = 25	55 kPa							
ф		PP = 17	70 kPa							
ji di	8 – siltier with depth	PP = 15	55 kPa							
	9 – stiff consistency	PP = 1'	70 kPa							
	10 – dark olive brown, very silty	PP = 18	85 kPa							
	35	PP = 20	)5 kPa							
O MOISTURE CONTENT LIQUID LIMIT Δ PLASTIC LIMIT  Q UNCONFINED CO γ DRY UNIT WEIGH	▼ WATER TABLE □ □ UNDISTUR	PENETRATION SAMPLE BED SAMPLE (SHELBY) LE	PLATE No. <b>12</b>							

		<del></del>														CLIENT: West 18 <sup>th</sup> Street Enterprises  PROJECT: Proposed Commercial Development									
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				_	9—									<del>_</del> _1	/ -	End of Borehole							PP = 25	55 kPa	
		Sloug														Slough = 11.8 m		0 1							
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