



TABLE 1
LIST OF ATTERBERG LIMITS

SOIL TYPE	BOREHOLE NO.	SAMPLE NO.	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
Clay	SP-S4	2	52	24	28	34
	SP-S5	2	54	23	31	34
	SP-S8	2	57	24	33	34
	SP-S12	2	53	24	29	37
	SP-S13	2	54	23	31	32
Silty Clay	SP-S1	2	44	21	23	32
	SP-S1	3	41	21	20	35
	SP-S4	4	46	22	24	33
	SP-S5	4	38	20	18	31
	SP-S7	3	41	21	20	33
	SP-S10	3	46	22	24	37
	SP-S14	2	49	22	27	24
Clayey Silt	SP-S1	5	28	20	8	31
	SP-S4	6	29	20	9	30
	SP-S8	6	28	19	9	26
	SP-S11	6	24	20	4	- *
	SP-S12	4	29	20	9	32
	SP-S14	5	25	20	5	27
Silt	SP-S5	7	Non-plastic			26
	SP-S7	7	Non-plastic			30
	SP-S10	6	23	20	3	24
	SP-S13	5	21	19	2	23

Note: * - Sufficient amount of soil sample not recovered.



TABLE 2
ROCK CORE DESCRIPTION

CORE RECOVERY					CORE DESCRIPTION	
HOLE NO.	CORE NO.	DEPTH (m)	RECOVERY (%)	RQD (%)	DEPTH (m)	DESCRIPTION
SP-S3	7	5.3 – 5.8	100	0	5.3 – 8.5	GRANITIC GNEISS: Grey with pink bands, fine to medium grained, high strength, slightly weathered to unweathered, multiple vertical fissures in upper 0.7 m, locally infilled with secondary carbonates, rough planar, light grey to brown scale on surface, close to moderate spaced flat cross joints, rough planar, tight, locally separating on black biotite seams, occasional vertical partings at depth, very poor becoming fair to excellent quality.
	8	5.8 – 7.4	100	63		
	9	7.4 – 8.5	100	94		
SP-S4	10	7.1 – 8.3	100	37	7.1 – 10.5	GRANITIC GNEISS: Grey with pink bands, fine to medium grained, medium to high strength, slightly weathered to unweathered, core shattered in upper 0.5 m due to vertical fissure, slightly altered with black oxidation/scale and minor silt on surface, generally close becoming moderate (locally very close) spaced flat to dipping cross joints, rough planar, tight, locally separating on black biotite seams, poor becoming fair to excellent quality.
	11	8.3 – 9.8	93	91		
	12	9.8 – 10.5	85	65		
SP-S5	8	5.2 – 6.1	97	56	5.2 – 8.3	GRANITIC GNEISS: Pink and grey with slight banding, fine to medium grained, high strength, unweathered, close to moderate spaced dipping to vertical cross joints, rough planar, tight to slightly altered with black, dark green, or bluish grey oxidation on partings, also very close to close becoming close to moderate spaced flat cross joints, rough planar, poor to fair, becoming good quality.
	9	6.1 – 6.7	83	25		
	10	6.7 – 8.3	97	85		
SP-S6	10	8.8 – 9.8	96	62	8.8 – 12.2	GRANITIC GNEISS: Pink and grey with slight banding, occasional 25 mm thick pink layers with black biotite concentrations, fine to medium grained, high strength, slightly weathered to unweathered, close to moderate spaced flat to dipping cross joints, rough planar, tight to slightly altered with red oxidation or grey silt on partings, occasionally separates on biotite concentrations, locally vertical fissure open to 2 mm with partial infilling by secondary mineralization, fair to excellent quality.
	11	9.8 – 11.3	100	95		
	12	11.3 – 12.2	89	81		

Originated: FP and MR

Compiled: PML

Checked: CN

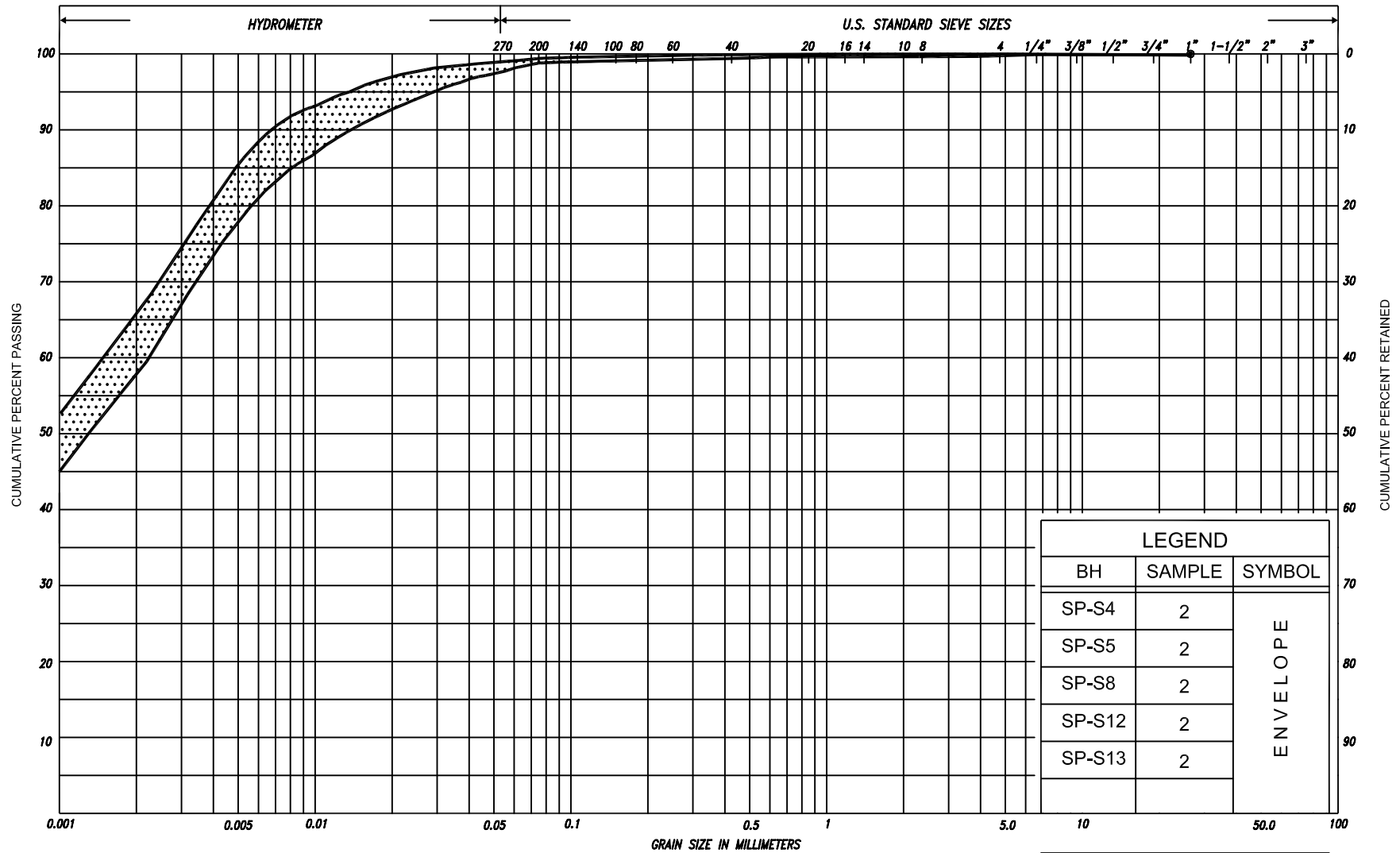


TABLE 2
 ROCK CORE DESCRIPTION

CORE RECOVERY					CORE DESCRIPTION	
HOLE NO.	CORE NO.	DEPTH (m)	RECOVERY (%)	RQD (%)	DEPTH (m)	DESCRIPTION
SP-S9	10	6.4 – 7.0	100	100	6.4 – 9.8	GRANITIC GNEISS: Pink and grey with slight banding, fine to medium grained, high strength, unweathered, moderate (locally close) spaced flat cross joints, smooth to rough planar, tight, occasionally separates on biotite concentrations, good to excellent quality, becoming dark grey below 9.2 m depth, very close to close spaced flat with occasional vertical cross joints, rough planar, tight to slightly altered with green oxidation or white scale on partings, fair to excellent quality.
	11	7.0 – 7.9	100	89		
	12	7.9 – 9.2	100	100		
	13	9.2 – 9.8	71	71		
SP-S10	7	5.8 – 7.2	100	93	5.8 – 8.8	GRANITIC GNEISS: Grey with pink bands, fine to medium grained, high strength, unweathered, moderate to wide spaced flat to dipping cross joints, rough planar, light grey scale or silt on parting surface, locally separating on black biotite seams, excellent quality.
	8	7.2 – 8.8	100	100		
SP-S11	8	7.0 – 7.5	-	-	5.8 – 8.1 8.1 – 11.3	BOULDERS/COBBLES/GRAVEL GRANITIC GNEISS: Grey with pink bands, fine to medium grained, high strength, unweathered, close to wide spaced flat to dipping cross joints, rough planar, tight to slightly altered with red oxidation or minor silt on parting, poor becoming excellent quality.
	9	7.8 – 8.6	56	26		
	10	8.6 – 10.1	95	92		
	11	10.1 – 11.3	98	98		
SP-S12	7	5.7 – 5.8	100	100	5.7 – 8.7	GRANITIC GNEISS: Pink and grey with slight banding, occasional 75 mm thick pink layers, fine to medium grained, high strength, slightly weathered to unweathered, close to moderate spaced flat to dipping cross joints, occasional vertical, rough planar, tight to slightly altered with red oxidation or silt on partings, excellent quality.
	8	5.8 – 7.2	100	95		
	9	7.2 – 8.7	98	94		

NOTE: RQD = Rock Quality Designation

Originated: FP and MR
 Compiled: PML
 Checked: CN

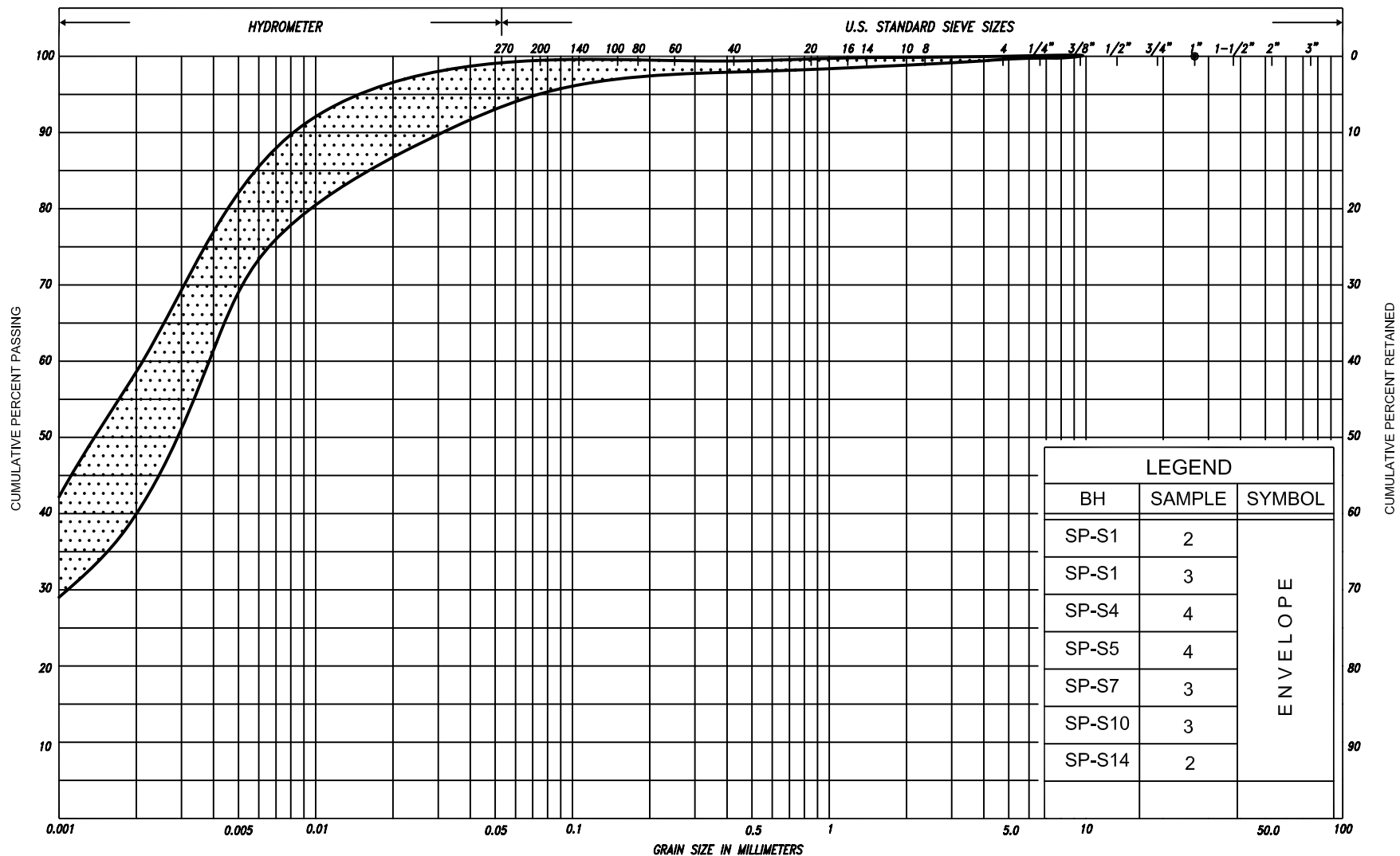


LEGEND		
BH	SAMPLE	SYMBOL
SP-S4	2	ENVELOPE
SP-S5	2	
SP-S8	2	
SP-S12	2	
SP-S13	2	

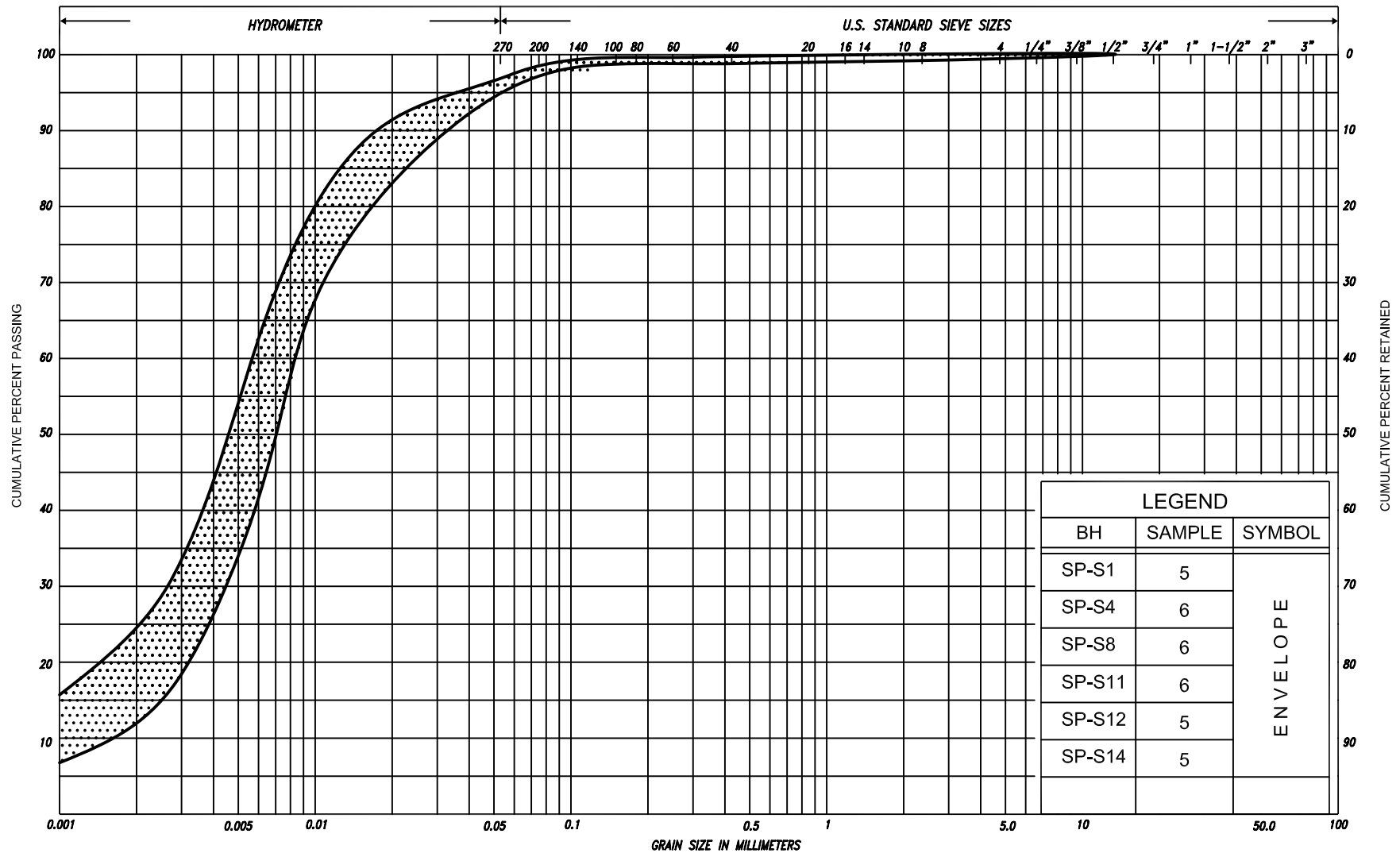
SILT & CLAY					FINE		MEDIUM		COARSE		GRAVEL			COBBLES	UNIFIED		
					SAND												
CLAY	FINE		MEDIUM		COARSE		FINE		MEDIUM		COARSE		GRAVEL			COBBLES	M.I.T.
	SILT																
CLAY		SILT			V. FINE	FINE	MED.	COARSE		GRAVEL							U.S. BUREAU
					SAND												

GRAIN SIZE DISTRIBUTION

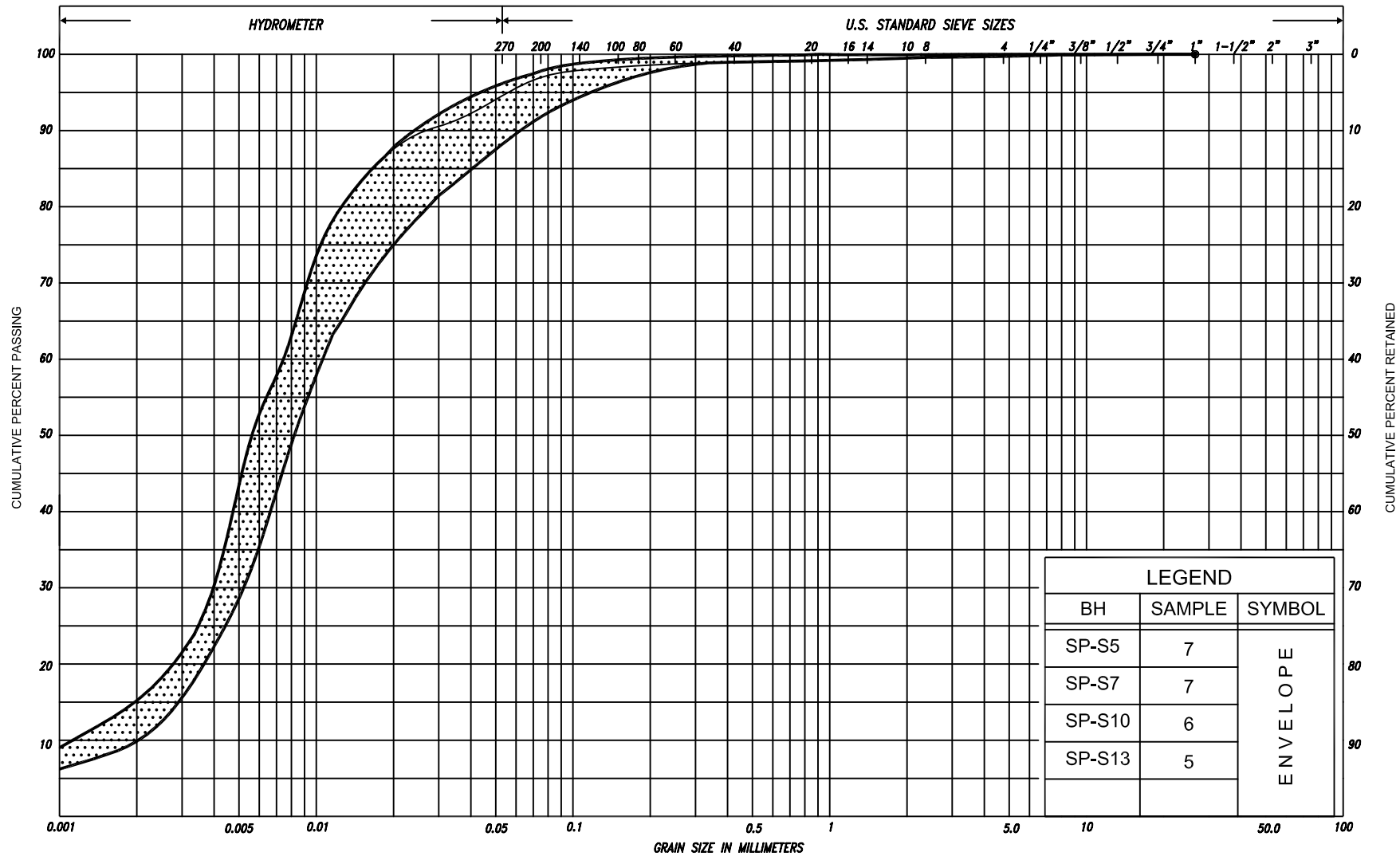
CLAY, trace sand, trace gravel



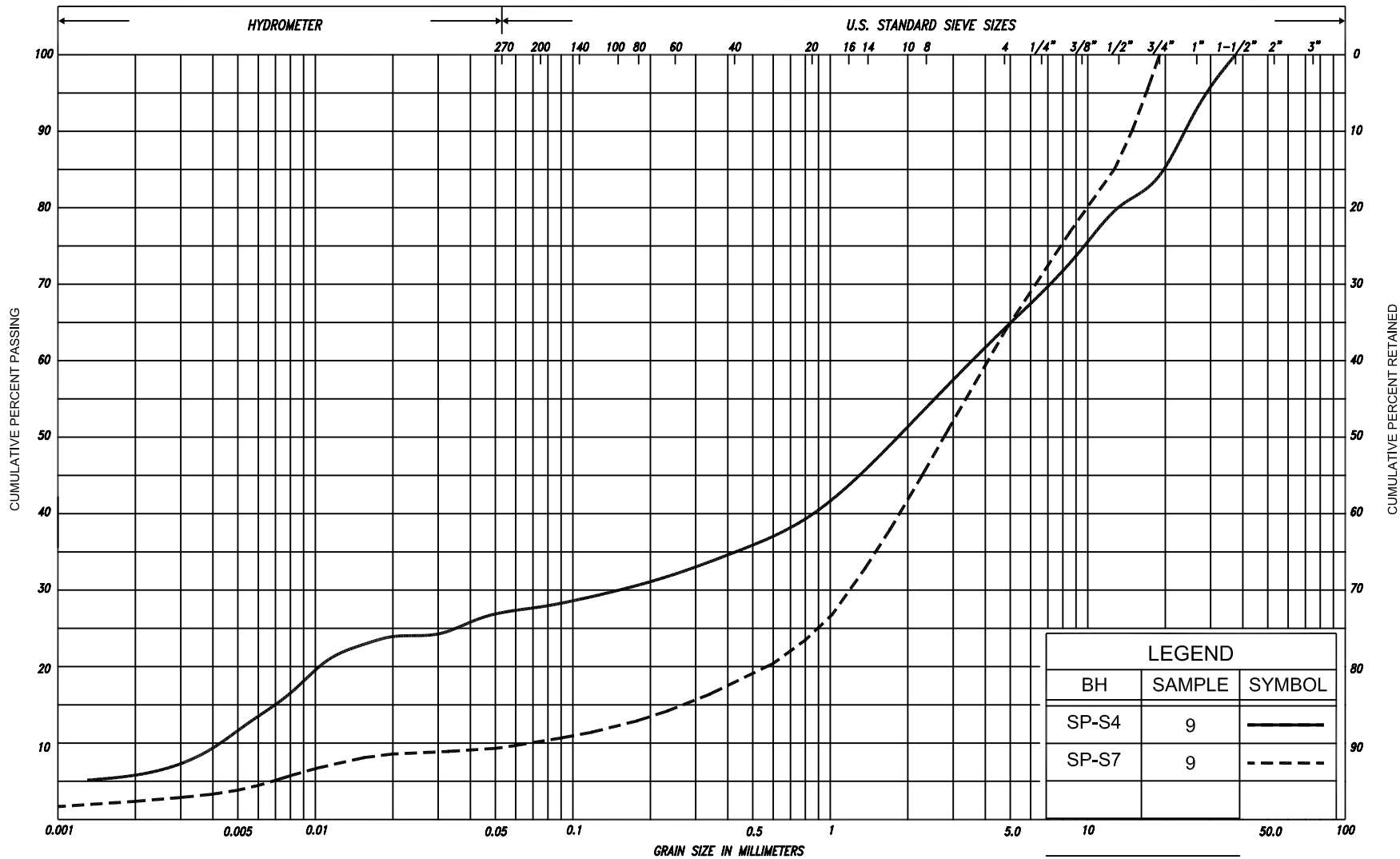
SILT & CLAY				FINE		MEDIUM		COARSE	GRAVEL			COBBLES	UNIFIED
CLAY	FINE	MEDIUM	COARSE	FINE		MEDIUM	COARSE		GRAVEL			COBBLES	M.I.T.
	SILT					V. FINE	FINE	MED.	COARSE	GRAVEL			



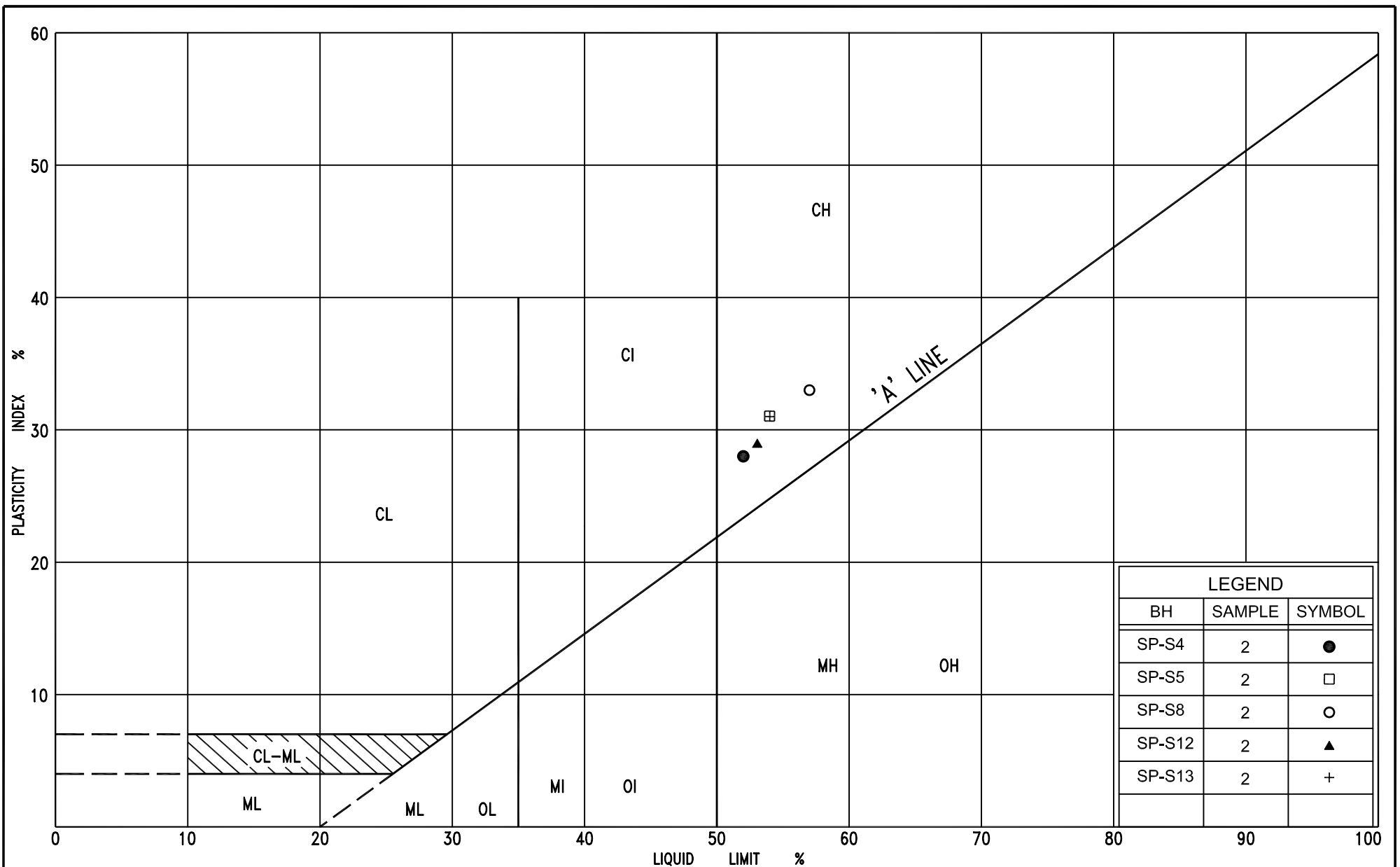
SILT & CLAY				FINE		MEDIUM		COARSE	GRAVEL		COBBLES	UNIFIED
				SAND								
CLAY	FINE		MEDIUM	COARSE	FINE		MEDIUM	COARSE	GRAVEL		COBBLES	M.I.T.
	SILT				SAND				GRAVEL			U.S. BUREAU
CLAY		SILT		V. FINE	FINE	MED.	COARSE	GRAVEL				
				SAND				GRAVEL				



SILT & CLAY					FINE		MEDIUM		COARSE		GRAVEL			COB BLES	UNIFIED		
					SAND												
CLAY	FINE		MEDIUM		COARSE		FINE		MEDIUM		COARSE		GRAVEL			COBBLES	M.I.T.
	SILT																
CLAY		SILT			V. FINE		FINE	MED.	COARSE		GRAVEL						U.S. BUREAU
					SAND												



SILT & CLAY				FINE		MEDIUM		COARSE		GRAVEL			COR BLES	UNIFIED		
				SAND												
CLAY	FINE		MEDIUM		COARSE		FINE		MEDIUM		COARSE		GRAVEL		COBBLES	M.I.T.
	SILT															
CLAY		SILT			V. FINE	FINE	MED.	COARSE		GRAVEL					U.S. BUREAU	
					SAND											



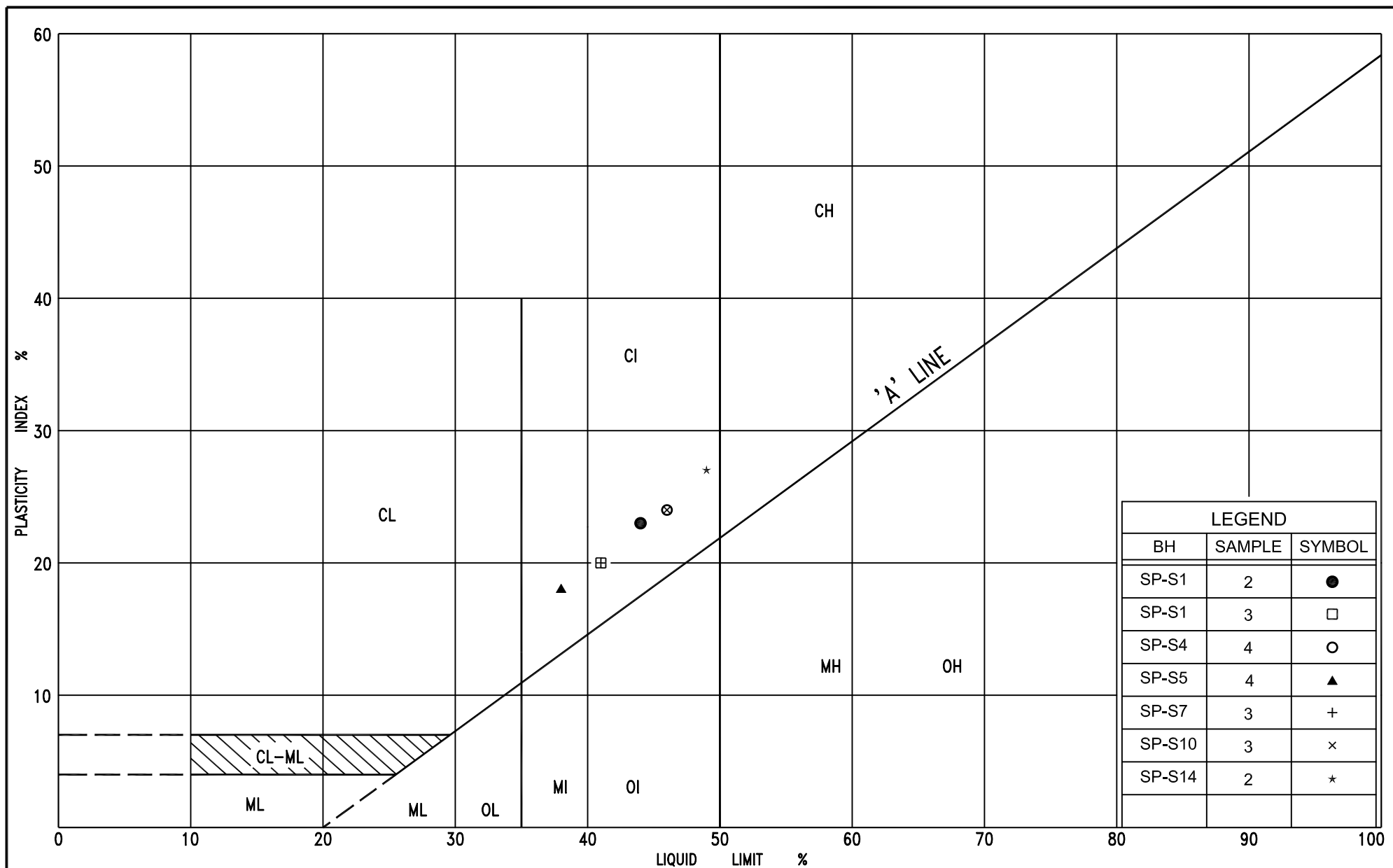
Ministry of
Transportation
Ontario

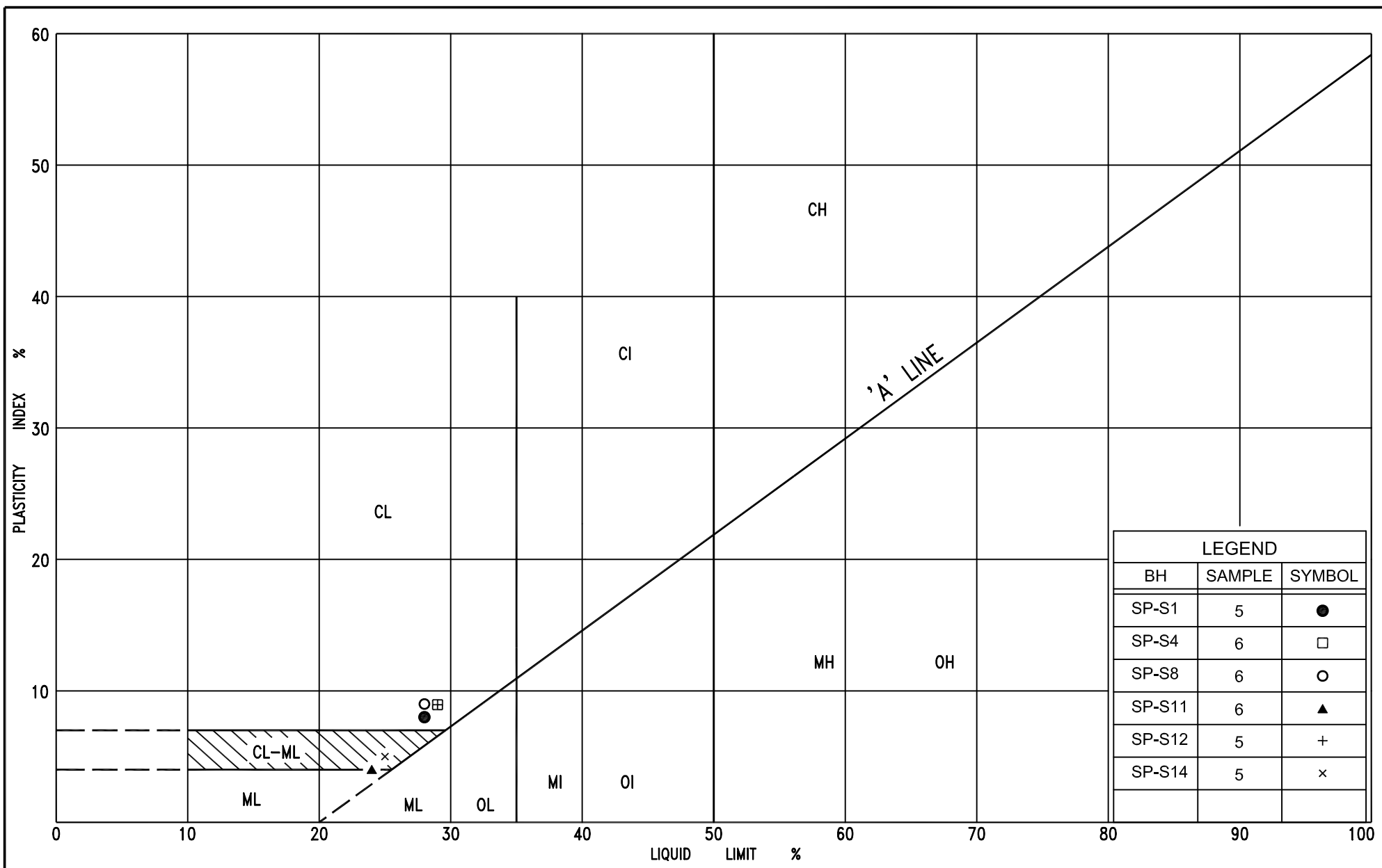
PLASTICITY CHART CLAY, trace sand, trace gravel

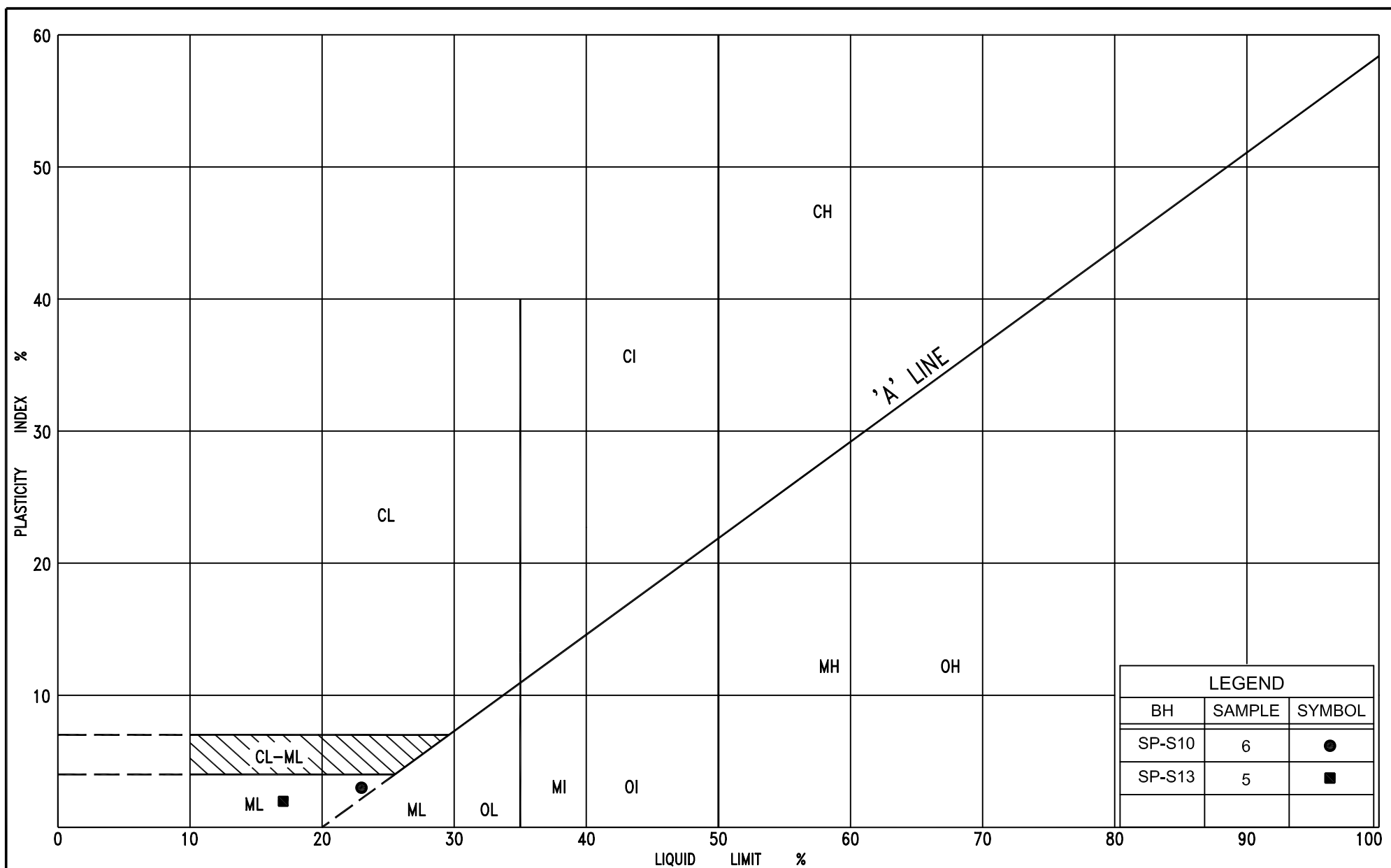
FIG No. SPS-PC-1

HWY: 69

W.P. No. 5276-05-01







LEGEND		
BH	SAMPLE	SYMBOL
SP-S10	6	●
SP-S13	5	■

EXPLANATION OF TERMS USED IN REPORT

N VALUE: THE STANDARD PENETRATION TEST (SPT) N VALUE IS THE NUMBER OF BLOWS REQUIRED TO CAUSE A STANDARD 51mm O.D. SPLIT BARREL SAMPLER TO PENETRATE 0.3m INTO UNDISTURBED GROUND IN A BOREHOLE WHEN DRIVEN BY A HAMMER WITH A MASS OF 63.5kg, FALLING FREELY A DISTANCE OF 0.76m. FOR PENETRATIONS OF LESS THAN 0.3m N VALUES ARE INDICATED AS THE NUMBER OF BLOWS FOR THE PENETRATION ACHIEVED. AVERAGE N VALUE IS DENOTED THUS \bar{N} .

DYNAMIC CONE PENETRATION TEST: CONTINUOUS PENETRATION OF A CONICAL STEEL POINT (51mm O.D. 60° CONE ANGLE) DRIVEN BY 475 J IMPACT ENERGY ON 'A' SIZE DRILL RODS. THE RESISTANCE TO CONE PENETRATION IS MEASURED AS THE NUMBER OF BLOWS FOR EACH 0.3m ADVANCE OF THE CONICAL POINT INTO THE UNDISTURBED GROUND.

SOILS ARE DESCRIBED BY THEIR COMPOSITION AND CONSISTENCY OR DENSENESS.

CONSISTENCY: COHESIVE SOILS ARE DESCRIBED ON THE BASIS OF THEIR UNDRAINED SHEAR STRENGTH (c_u) AS FOLLOWS:

c_u (kPa)	0 - 12	12 - 25	25 - 50	50 - 100	100 - 200	> 200
	VERY SOFT	SOFT	FIRM	STIFF	VERY STIFF	HARD

DENSENESS: COHESIONLESS SOILS ARE DESCRIBED ON THE BASIS OF DENSENESS AS INDICATED BY SPT N VALUES AS FOLLOWS:

N (BLOWS/0.3m)	0 - 5	5 - 10	10 - 30	30 - 50	> 50
	VERY LOOSE	LOOSE	COMPACT	DENSE	VERY DENSE

ROCKS ARE DESCRIBED BY THEIR COMPOSITION AND STRUCTURAL FEATURES AND / OR STRENGTH.

RECOVERY: SUM OF ALL RECOVERED ROCK CORE PIECES FROM A CORING RUN EXPRESSED AS A PERCENT OF THE TOTAL LENGTH OF THE CORING RUN.

MODIFIED RECOVERY: SUM OF THOSE INTACT CORE PIECES, 100mm+ IN LENGTH EXPRESSED AS A PERCENT OF THE LENGTH OF THE CORING RUN. THE ROCK QUALITY DESIGNATION (R Q D), FOR MODIFIED RECOVERY, IS:

RQD (%)	0 - 25	25 - 50	50 - 75	75 - 90	90 - 100
	VERY POOR	POOR	FAIR	GOOD	EXCELLENT

JOINTING AND BEDDING:

SPACING	50mm	50 - 300mm	0.3m - 1m	1m - 3m	> 3m
JOINTING	VERY CLOSE	CLOSE	MOD. CLOSE	WIDE	VERY WIDE
BEDDING	VERY THIN	THIN	MEDIUM	THICK	VERY THICK

ABBREVIATIONS AND SYMBOLS

FIELD SAMPLING

S S	SPLIT SPOON	T P	THINWALL PISTON
W S	WASH SAMPLE	O S	OSTERBERG SAMPLE
S T	SLOTTED TUBE SAMPLE	R C	ROCK CORE
B S	BLOCK SAMPLE	P H	T W ADVANCED HYDRAULICALLY
C S	CHUNK SAMPLE	P M	T W ADVANCED MANUALLY
T W	THINWALL OPEN	F S	FOIL SAMPLE
F V	FIELD VANE		

STRESS AND STRAIN

u_w	kPa	PORE WATER PRESSURE
u	1	PORE PRESSURE RATIO
σ	kPa	TOTAL NORMAL STRESS
σ'	kPa	EFFECTIVE NORMAL STRESS
τ	kPa	SHEAR STRESS
$\sigma_1, \sigma_2, \sigma_3$	kPa	PRINCIPAL STRESSES
ϵ	%	LINEAR STRAIN
$\epsilon_1, \epsilon_2, \epsilon_3$	%	PRINCIPAL STRAINS
E	kPa	MODULUS OF LINEAR DEFORMATION
G	kPa	MODULUS OF SHEAR DEFORMATION
μ	1	COEFFICIENT OF FRICTION

MECHANICAL PROPERTIES OF SOIL

m_v	kPa^{-1}	COEFFICIENT OF VOLUME CHANGE
C_c	1	COMPRESSION INDEX
C_s	1	SWELLING INDEX
C_α	1	RATE OF SECONDARY CONSOLIDATION
c_v	m^2/s	COEFFICIENT OF CONSOLIDATION
H	m	DRAINAGE PATH
T_v	1	TIME FACTOR
U	%	DEGREE OF CONSOLIDATION
σ'_{vo}	kPa	EFFECTIVE OVERBURDEN PRESSURE
σ'_p	kPa	PRECONSOLIDATION PRESSURE
τ_f	kPa	SHEAR STRENGTH
c'	kPa	EFFECTIVE COHESION INTERCEPT
ϕ'	-°	EFFECTIVE ANGLE OF INTERNAL FRICTION
c_u	kPa	APPARENT COHESION INTERCEPT
ϕ_u	-°	APPARENT ANGLE OF INTERNAL FRICTION
τ_R	kPa	RESIDUAL SHEAR STRENGTH
τ_r	kPa	REMOULDED SHEAR STRENGTH
S_t	1	SENSITIVITY = $\frac{c_u}{\tau_r}$

PHYSICAL PROPERTIES OF SOIL

ρ_s	kg/m^3	DENSITY OF SOLID PARTICLES	n	1, %	POROSITY	e_{\max}	1, %	VOID RATIO IN LOOSEST STATE
γ_s	kN/m^3	UNIT WEIGHT OF SOLID PARTICLES	w	1, %	WATER CONTENT	e_{\min}	1, %	VOID RATIO IN DENSEST STATE
ρ_w	kg/m^3	DENSITY OF WATER	S_r	%	DEGREE OF SATURATION	I_D	1	DENSITY INDEX = $\frac{e_{\max} - e}{e_{\max} - e_{\min}}$
γ_w	kN/m^3	UNIT WEIGHT OF WATER	w_L	%	LIQUID LIMIT	D	mm	GRAIN DIAMETER
ρ	kg/m^3	DENSITY OF SOIL	w_p	%	PLASTIC LIMIT	D_n	mm	n PERCENT - DIAMETER
γ	kN/m^3	UNIT WEIGHT OF SOIL	w_s	%	SHRINKAGE LIMIT	C_u	1	UNIFORMITY COEFFICIENT
ρ_d	kg/m^3	DENSITY OF DRY SOIL	I_p	%	PLASTICITY INDEX = $w_L - w_p$	h	m	HYDRAULIC HEAD OR POTENTIAL
γ_d	kN/m^3	UNIT WEIGHT OF DRY SOIL	I_L	1	LIQUIDITY INDEX = $\frac{w - w_p}{I_p}$	q	m^3/s	RATE OF DISCHARGE
ρ_{sat}	kg/m^3	DENSITY OF SATURATED SOIL	I_C	1	CONSISTENCY INDEX = $\frac{w_L - w}{I_p}$	v	m/s	DISCHARGE VELOCITY
γ_{sat}	kN/m^3	UNIT WEIGHT OF SATURATED SOIL	DTPL		DRIER THAN PLASTIC LIMIT	i	1	HYDRAULIC GRADIENT
ρ'	kg/m^3	DENSITY OF SUBMERGED SOIL	APL		ABOUT PLASTIC LIMIT	k	m/s	HYDRAULIC CONDUCTIVITY
γ'	kN/m^3	UNIT WEIGHT OF SUBMERGED SOIL	WTPL		WETTER THAN PLASTIC LIMIT	j	kN/m^2	SEEPAGE FORCE
e	1, %	VOID RATIO						

RECORD OF BOREHOLE No SP-S1

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 913.8 N; 337 024.6 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Solid Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE January 13, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)				
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					W _p W W _L								
								○ UNCONFINED + FIELD VANE					WATER CONTENT (%)								
								● QUICK TRIAXIAL × LAB VANE													
205.9	Ground Surface							20	40	60	80	100									
0.0 205.6	Topsoil		1	SS	5	205	204														
0.3	Silty clay trace sand, trace gravel Firm to Reddish Moist very stiff brown _____ clayey silt layers _____		2	SS	11																1 4 46 49
			3	SS	12															0 2 51 47	
			4	SS	9																
202.8	Clayey silt trace sand, trace gravel Firm to Grey/ Wet very stiff brown		5	SS	6			203	202												0 3 78 19
201.5	End of borehole		6	SS	26																
4.4	Refusal on probable bedrock																				
<div>* 2009 01 13</div> <div> Water level observed during drilling</div> <div> Water level measured after drilling</div> <div> Penetrometer test</div>																					

RECORD OF BOREHOLE No SP-S2

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 922.8 N; 337 010.6 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Hollow Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE December 14, 2008 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL		
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa									WATER CONTENT (%)	
								○ UNCONFINED	● QUICK TRIAXIAL	+ FIELD VANE	× LAB VANE							
205.4	Ground Surface					20	40	60	80	100	20	40	60					
0.0	Topsoil																	
205.2 0.2	Silty clay, trace sand																	
	Very stiff Reddish Moist to firm brown		1	SS	19							○						
			2	SS	13							○						
			3	SS	10							○						
		clayey silt layers		4	SS	6						○						
201.7	Clayey silt, trace sand																	
3.7	Firm to Grey Moist hard		5	SS	5							○						
200.5																		
4.9	silty clay layers		6	SS	5/10cm							○						
200.4	Gravelly sand, some silt																	
5.0	End of borehole																	
	Refusal on probable bedrock																	
	sample 6: Sampler bouncing																	
	* 2008 12 14																	
	▼ Water level measured after drilling																	
	■ Penetrometer test																	
	Piezometer Legends :																	
	■ Bentonite seal																	
	Filter sand																	
	Screen																	
	Water Level Readings :																	
	Date	Depth (m)	Elev.															
	12/14/2008	2.3	203.1															
	02/19/2009	2.7	202.7															

RECORD OF BOREHOLE No SP-S3

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 930.2 N; 337 022.6 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE December 15, 2008 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER * CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL		
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	*N* VALUES			SHEAR STRENGTH kPa											
								○ UNCONFINED + FIELD VANE											
								● QUICK TRIAXIAL × LAB VANE											
					WATER CONTENT (%)														
					20 40 60 80 100					20 40 60									
205.3	Ground Surface						205												
0.0	Topsoil																		
205.1	Silty clay, trace sand		1	SS	13			204											
0.2	Stiff Reddish Moist to firm brown		2	SS	10														
			3	SS	7				203										
			4	SS	3					202									
201.6	Clayey silt, trace sand	5	SS	5	201														
3.7	Firm Brown Moist to stiff																		

RECORD OF BOREHOLE No SP-S4

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 930.8 N; 337 014.1 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE January 12, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)			
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	*N VALUES			SHEAR STRENGTH kPa										WATER CONTENT (%)		
								○ UNCONFINED	● QUICK TRIAXIAL	+ FIELD VANE	× LAB VANE									
205.5	Ground Surface						20	40	60	80	100						GR SA SI CL			
0.0	Topsoil		1	SS	12	ψ*											1 1 35 63			
0.3	Clay trace sand, trace gravel																			
	Very stiff Reddish Moist brown		2	SS	12															
204.3	Silty clay trace sand, trace gravel																			
	Very stiff Brown Moist to stiff		3	SS	12															
1.2																				
			4	SS	7															
				FV																
			5	TW	PH															
				FV																
201.7	Clayey silt, trace sand		6	CS	4															
3.8	Stiff Grey Moist to wet			FV																
			7	SS	11															
			8	SS	11															
199.6	Gravelly sand with silt, trace clay																			
5.9	Compact Grey Wet		9	SS	15															
198.4	Granitic Gneiss Bedrock																			
7.1	Slightly weathered to unweathered		10	RC NQ	REC 100%															
	Medium strength																			
	Poor, becoming fair to excellent quality																			
	High strength		11	RC NQ	REC 93%															
			12	RC NQ	REC 85%															
195.0																				
10.5	End of borehole																			
								</												

RECORD OF BOREHOLE No SP-S5

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 928.1 N; 337 007.2 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE January 13, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)				
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa										WATER CONTENT (%)			
								○ UNCONFINED	● QUICK TRIAXIAL	+ FIELD VANE	× LAB VANE										
205.5	Ground Surface					20	40	60	80	100	20	40	60			GR	SA	SI	CL		
0.0 205.2	Topsoil		1	SS	7	V _s *	205							○			0	1	41	58	
0.3	Clay, trace sand Firm to Reddish Moist Very stiff brown		2	SS	10		204								○						
			3	SS	9		203								○						
203.7	Silty clay trace sand, trace gravel Stiff to Brown Moist firm to wet		4	SS	6		202								○						
1.8			5	SS	4		201								○						
	clayey silt layers		6	SS	3		200								○						
201.2	Grey		7	SS	7		199								○						
4.3	Silt some clay, trace sand Loose Grey Wet		8	RC NQ	REC 97%		198								○						
200.3			9	RC NQ	REC 83%										○						
5.2	Granitic Gneiss Bedrock Unweathered High strength Poor to fair, becoming good quality		10	RC NQ	REC 97%										○						
197.2	End of borehole																				
8.3																					

RECORD OF BOREHOLE No SP-S6

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 933.2 N; 337 018.5 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE January 13 and 21, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)			
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					w _p	w	w _L					
								○ UNCONFINED + FIELD VANE												
								● QUICK TRIAXIAL × LAB VANE		WATER CONTENT (%)										
205.6	Ground Surface						20	40	60	80	100						GR	SA	SI	CL
0.0 205.3 0.3	Topsoil		1	SS	7	 ▽* ▽* ▽*	205													
	Clay trace sand, trace gravel																			
	Stiff Grey/ Moist Brown		2	SS	14															

	Brown		3	SS	7															
203.5																				
	Silty clay trace sand, trace gravel																			
	Stiff _____ Moist Brown _____		4	SS	9															
	Grey																			
			5	SS	5															
201.9																				
	Clayey silt trace sand, trace gravel																			
	Firm Grey Wet to stiff _____		6	SS	4															
	silt, trace sand layers																			
			7	SS	5															
			8	SS	12															
199.8																				
	Gravelly sand with silt, trace clay																			
	Dense Grey Wet		9	SS	34															

	cobbles and boulders																			

RECORD OF BOREHOLE No SP-S7

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 935.5 N; 337 019.2 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Solid Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE January 12, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)		
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	*N* VALUES			SHEAR STRENGTH kPa											
								○ UNCONFINED + FIELD VANE											
								● QUICK TRIAXIAL × LAB VANE											
					WATER CONTENT (%)														
					20 40 60 80 100					20 40 60									
205.7	Ground Surface		1	SS	17	▼*	▽*										GR SA SI CL		
0.0	Topsoil																		
205.5	Silty clay trace sand, trace gravel																		
0.2	Stiff to firm Reddish brown Moist																		
								</											

RECORD OF BOREHOLE No SP-S8

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 937.8 N; 337 001.2 E ORIGINATED BY F.P.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Solid Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE January 13, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)			
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa										WATER CONTENT (%)		
								○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE												
205.3	Ground Surface							20	40	60	80	100								
0.0	Topsoil																			
205.1	Clay, trace sand		1	SS	6		205													
0.2	Stiff to Brown Moist very stiff																			
204.1			2	SS	9															
1.2	Silty clay trace sand, trace gravel						204													
	Hard Brown Moist to firm		3	SS	9															
			4	SS	4		203													
				FV																
			5	SS	2		202													
				FV																
201.5	Clayey silt trace sand, trace gravel		6	CS	3		201													
3.8	Firm to Grey Wet hard			FV																
			7	SS	15/15cm															
200.3	End of borehole																			
5.0	Refusal on probable bedrock																			
	Sample 7: Sampler bouncing																			
	* 2009 01 13																			
	Water level observed during drilling																			
	Water level measured after drilling																			
	Penetrometer test																			

RECORD OF BOREHOLE No SP-S9

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 940.7 N; 337 002.1 E ORIGINATED BY F.P.
DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
DATUM Geodetic DATE January 21, 2009 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL						
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa										WATER CONTENT (%)					
								○ UNCONFINED		+ FIELD VANE													
								● QUICK TRIAXIAL		× LAB VANE													
205.3	Ground Surface							20	40	60	80	100											
0.0	Topsoil		1	SS	8	▽*	205																
0.3	Clay, trace sand																						
	Firm to Grey/ very stiff brown Moist		2	SS	16																		
			3	SS	11																		
202.6			4	SS	5																		
2.7	Silty clay, trace sand																						
	Firm Brown Moist																						
	Grey Wet		5	SS	3																		
			6	CS	3																		
200.7																							
4.6	Clayey silt, trace sand		7	TW	PH																		
	Firm Grey Moist to wet																						
199.8	silt, trace clay layers																						
5.5	Sand		8	SS	18																		
	trace silt, trace gravel																						
	Compact Grey Wet		9	SS	20/15cm																		
198.9	Granitic Gneiss Bedrock																						
6.4	Unweathered		10	RC NQ	REC 100%											RQD 100%							
	High strength																						
	Good to excellent quality		11	RC NQ	REC 100%											RQD 89%							
			12	RC NQ	REC 100%											RQD 100%							
	Fair quality		13	RC NQ	REC 71%											RQD 71%							
195.5	End of borehole																						
9.8																							

RECORD OF BOREHOLE No SP-S10

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 945.2 N; 337 013.2 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE December 11 and 12, 2008 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS *	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)	
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					W _p	W	W _L			
								○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE										
205.4	Ground Surface							20	40	60	80	100						
0.0	Topsoil																	
205.2	Silty clay, trace sand						205											
0.2	Stiff Reddish Moist to firm brown		1	SS	12									○				
			2	SS	11		204							○				
			3	SS	7		203							○			0 1 40 59	
			4	SS	4		202							○				
			5	SS	3		201							○				
201.0	silt lenses																	
4.4	Grey		6	SS	7		200							○			1 2 82 15	
	Silt, some clay trace sand, trace gravel																	
	Loose Grey Wet																	
199.6	Granitic Gneiss Bedrock		7	RC NQ	REC 100%		199											RQD 93%
5.8	Unweathered High strength Excellent quality		8	RC NQ	REC 100%		198											RQD 100%
							197											
196.6	End of borehole																	
8.8																		
	<div>* Borehole charged with drilling water</div> <div>■ Penetrometer test</div> <div>C.F.S.S.A. denotes Continuous Flight Solid Stem Augers</div>																	

* Borehole charged with
drilling water

■ Penetrometer test

C.F.S.S.A. denotes
Continuous Flight Solid Stem
Augers

RECORD OF BOREHOLE No SP-S11

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 942.8 N; 337 006.7 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. and Rotary Diamond Drilling COMPILED BY N.R.
 DATUM Geodetic DATE December 14 and 15, 2008 CHECKED BY C.N.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS *	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES		SHEAR STRENGTH kPa				W _p	w	W _L		
205.4	Ground Surface						20	40	60	80	100				
0.0	Topsoil														
205.2	Silty clay, trace sand														
0.2	Very stiff Mottled Moist to firm reddish brown		1	SS	12										
			2	SS	9										
			3	SS	8										
			4	SS	4										
201.7	Clayey silt trace sand, trace gravel		5	SS	4										
3.7	Firm Grey Moist		6	SS	3										
			7	SS	6/15cm										
	cobbles and boulders		8	RC NQ	-										
197.3	Granitic Gneiss Bedrock		9	RC NQ	REC 56%										
8.1	Unweathered		10	RC NQ	REC 95%										
	High strength		11	RC NQ	REC 98%										
	Poor, becoming excellent quality														
194.1	End of borehole														
11.3															

METRIC

+⁷, ×⁵: Numbers refer to Sensitivity

20
15 — ○ — 5
10

(%) STRAIN AT FAILURE

RECORD OF BOREHOLE No SP-S13

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 950.6 N; 337 009.8 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Hollow Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE December 11, 2008 CHECKED BY C.N.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			20 40 60 80 100	20 40 60 80 100	W _p W W _L	20 40 60			
205.5 0.0	Ground Surface													
205.4 0.1	Topsoil Clay, trace sand Very stiff Mottled Moist to firm reddish brown		1	SS	14									
			2	SS	13			150						0 1 39 60
			3	SS	8									
			4	SS	3									
201.8 3.7	Silt, some clay trace sand, trace gravel Loose Brown Wet Grey		5	SS	5									1 7 81 11
			6	SS	9									
200.2 5.3	End of borehole Refusal on probable bedrock													

* 2008 12 14

▼ Water level measured after drilling

■ Penetrometer test

Piezometer Legends :

■ Bentonite seal

□ Filter sand

□ Screen

Water Level Readings :

Date	Depth (m)	Elev.
12/14/2008	0.8	204.7
02/19/2009	0.9	204.6

RECORD OF BOREHOLE No SP-S14

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Coords: 5 097 959.8 N; 336 996.2 E ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE Continuous Flight Hollow Stem Augers COMPILED BY N.R.
 DATUM Geodetic DATE December 11, 2008 CHECKED BY C.N.


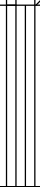

SOIL PROFILE			SAMPLES			GROUND WATER * CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT w _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w _L	UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa									
								○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE									
205.5 0.0	Ground Surface						20	40	60	80	100						
205.4 0.1	Topsoil		1	SS	3												
	Silty clay, trace sand																
	Very stiff Mottled Moist to stiff redish brown		2	SS	5							175					
			3	SS	9							125					
			4	SS	8												
202.6 2.9	Clayey silt, trace sand																
	Firm Brown Wet		5	SS	5												
201.6 3.9	End of borehole																
	Refusal on probable bedrock																
	* Borehole dry																
	■ Penetrometer test																

RECORD OF BOREHOLE No SPR-1

1 of 1

METRIC

W.P. 5276-05-01 LOCATION Supply Post Road Overpass
Co-ords. 5 097 932 N; 337 003 E
DIST 54 HWY 69 BOREHOLE TYPE C.F.H.S.A. & NQ Rock Coring
DATUM Geodetic DATE May 28, 2004
ORIGINATED BY M.R.
COMPILED BY M.R.
CHECKED BY D.W.K.

SOIL PROFILE			SAMPLES			GROUND WATER * CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)			
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	*N* VALUES			SHEAR STRENGTH kPa					w _p	w	w _L					
204.8 0.0	Ground Surface							20	40	60	80	100								
204.7 0.1	Peat, coarse fibrous Dark brown		1	SS	5		204													
	Silty clay, trace sand silt lenses, trace clay																			
	Firm Brown APL		2	SS	8		203						125							
							202													
			3	SS	2		201													
200.8 4.0	Silt, trace clay																			
	Loose Grey Wet		4	SS	5		200													
199.0 5.8	Bedrock						199													
	Granitic Gneiss		5	RC NQ	REC 100%		198											RQD 93%		
	Medium to high strength																			
	Fair to excellent quality		6	RC NQ	REC 100%		197											RQD 72%		
196.0 8.8	End of borehole						196													

RECORD OF PENETRATION TEST No SPR-2

1 of 1 **METRIC**

W.P. 5276-05-01 LOCATION Supply Post Road Overpass ORIGINATED BY M.R.
 DIST 54 HWY 69 BOREHOLE TYPE Dynamic Cone Penetration Test COMPILED BY M.R.
 DATUM Geodetic DATE May 28, 2004 CHECKED BY D.W.K.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)	
ELEV. DEPTH	DESCRIPTION	STRAT. PLOT	NUMBER	TYPE	"N" VALUES			20	40	60	80	100			W _p
205.0 0.0	Ground Surface														
	Possible silty clay														
	Possible silt														
196.8 8.2	End of dynamic cone penetration test Refusal on probable bedrock														

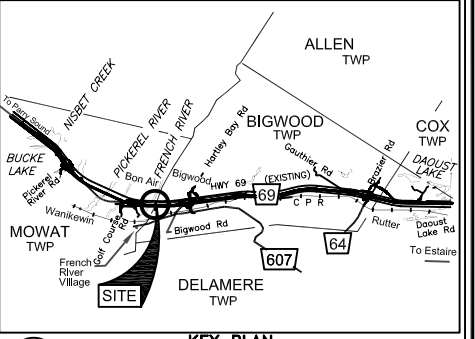
CONT No
WP No 5276-05-01

SUPPLY POST ROAD SB OVERPASS
HIGHWAY 69
BOREHOLE LOCATIONS AND SOIL STRATA



SHEET

PML Peto MacCallum Ltd.
CONSULTING ENGINEERS

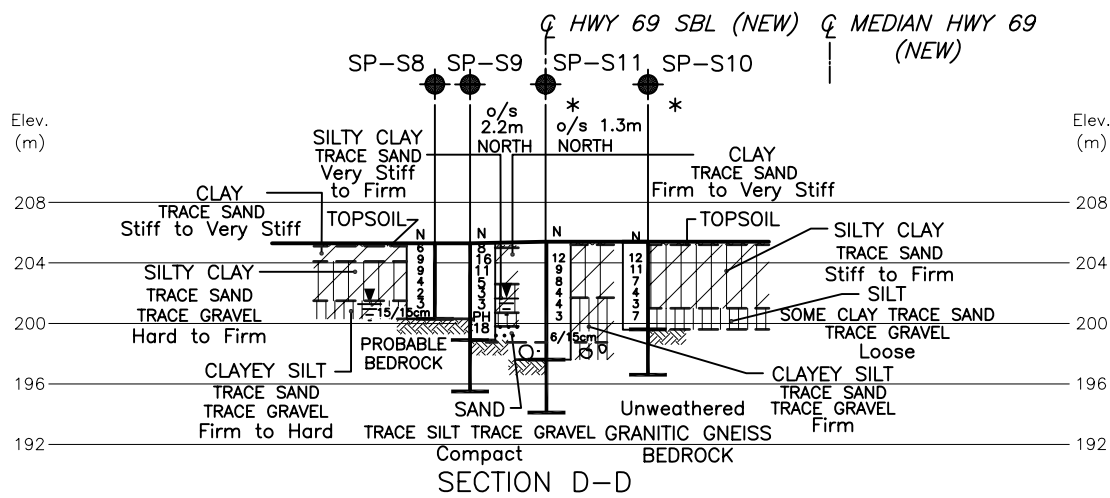
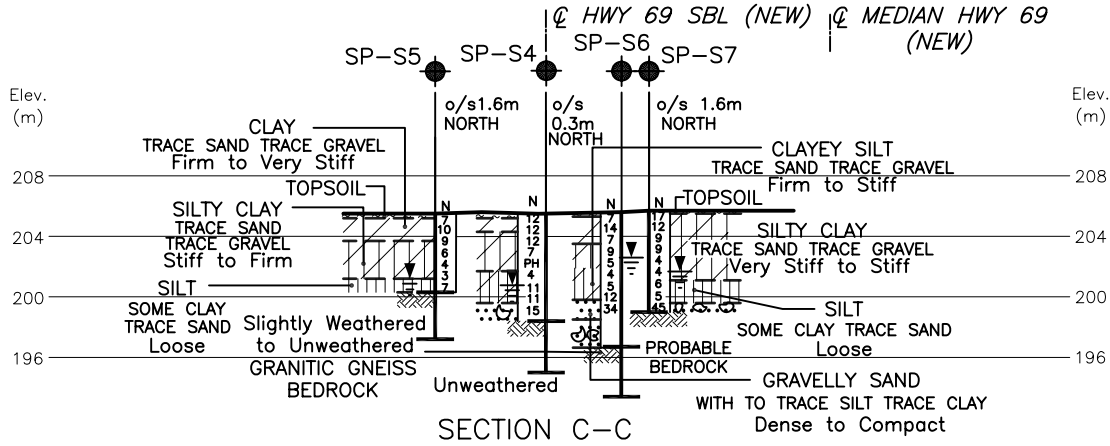
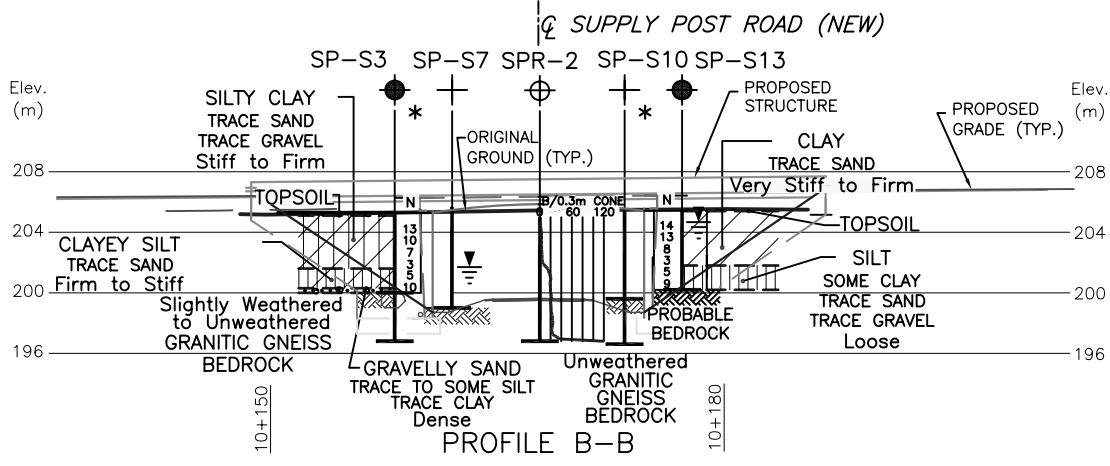


- LEGEND**
- Borehole
 - Dynamic Cone Penetration Test (Cone)
 - Borehole & Cone
 - N Blows/0.3m (Std. Pen Test, 475 J / blow)
 - CONE Blows/0.3m (60 Cone, 475 J / blow)
 - PH Thinwall Sample - Advanced Hydraulically
 - W L at time of investigation Dec 2008 and Jan 2009; SPR-2 May 2004
 - * W L not established
 - Head
 - ARTESIAN WATER Encountered
 - PIEZOMETER

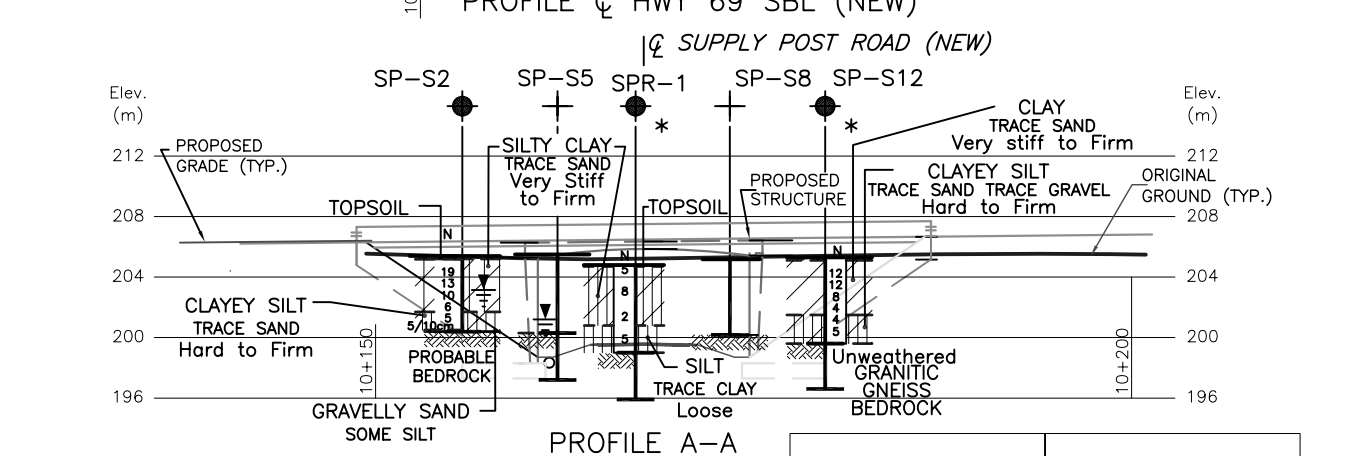
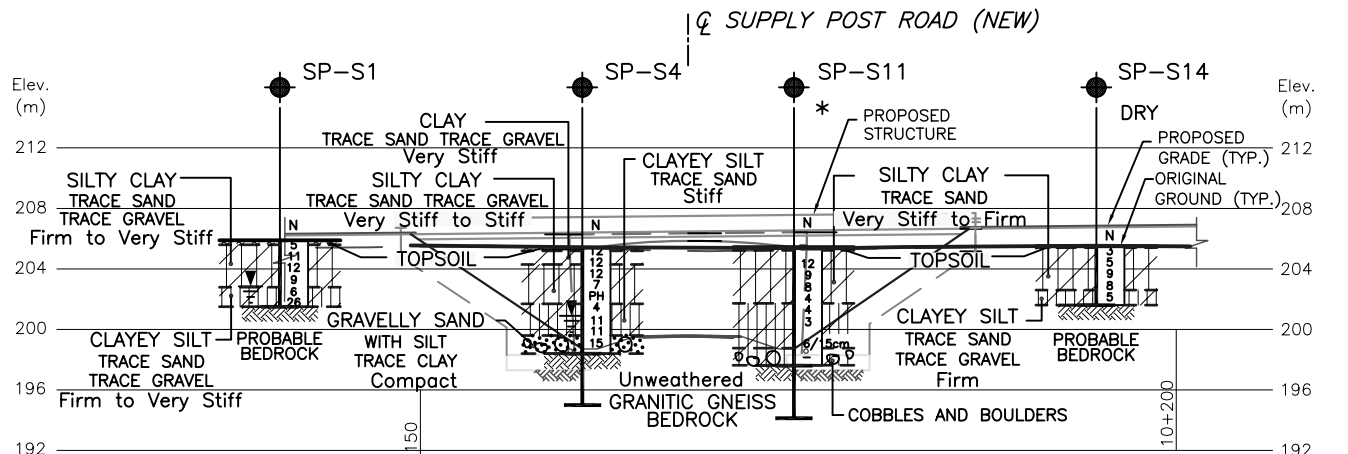
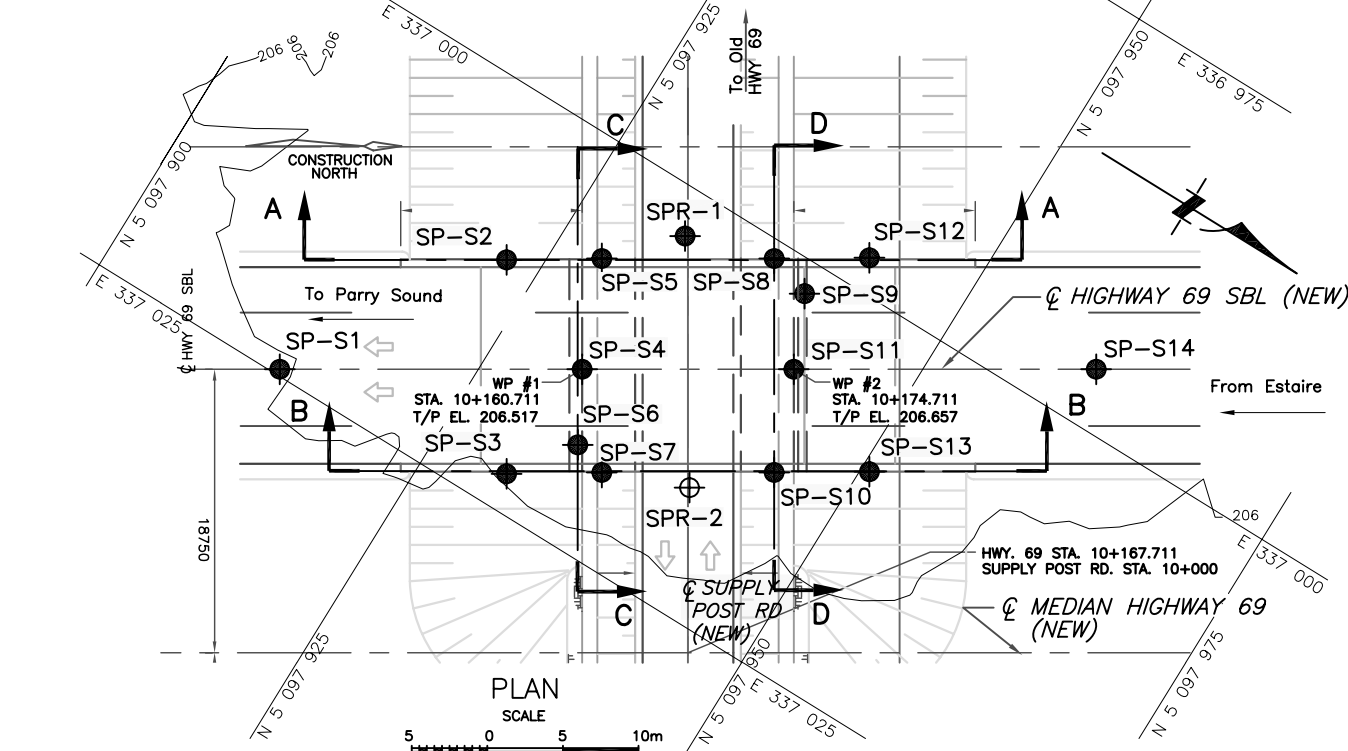
BH No	ELEVATION	CO-ORDINATES	
		NORTHINGS	EASTINGS
SP-S1	205.9	5 097 913.8	337 024.6
SP-S2	205.4	5 097 922.8	337 010.6
SP-S3	205.3	5 097 930.2	337 022.6
SP-S4	205.5	5 097 930.8	337 014.1
SP-S5	205.5	5 097 928.1	337 007.2
SP-S6	205.6	5 097 933.2	337 018.5
SP-S7	205.7	5 097 935.5	337 019.2
SP-S8	205.3	5 097 937.8	337 001.2
SP-S9	205.3	5 097 940.7	337 002.1
SP-S10	205.4	5 097 945.2	337 013.2
SP-S11	205.4	5 097 942.8	337 006.7
SP-S12	205.3	5 097 943.1	336 997.8
SP-S13	205.5	5 097 950.6	337 009.8
SP-S14	205.5	5 097 959.8	336 996.2
SPR-1	204.8	5 097 932.0	337 003.0
SPR-2	205.0	5 097 941.0	337 017.0

- NOTE -
The boundaries between soil strata have been established only at Borehole locations. Between Boreholes the boundaries are assumed from geological evidence.

REVISIONS		
DATE	BY	DESCRIPTION
Geocres No. 411-236		
HWY No 69	CHECKED NR	DATE AUG. 26, 2009
SUBM'D NR	CHECKED CN	APPROVED BRG
DRAWN NA	CHECKED CN	APPROVED BRG
DIST 54	SITE 44-433	DWG SPS-1



- NOTES:**
- DRAWING SR-1 SHOULD BE READ IN CONJUNCTION WITH THE TEXT AND RECORD OF BOREHOLE LOGS.
 - THIS DRAWING IS FOR SUBSURFACE INFORMATION ONLY. SURFACE DETAILS AND FEATURES ARE FOR CONCEPTUAL ILLUSTRATION.
 - BOREHOLES SPR-1 AND SPR-2 WERE DRILLED FOR THE PRELIMINARY INVESTIGATION IN 2004.
 - DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN. STATIONS ARE IN KILOMETRES AND METRES.



REF No. MRC Drawing: S6454-324-001GA.dwg;
dated July 2008 (Modified on February 17, 2009)



APPENDIX A

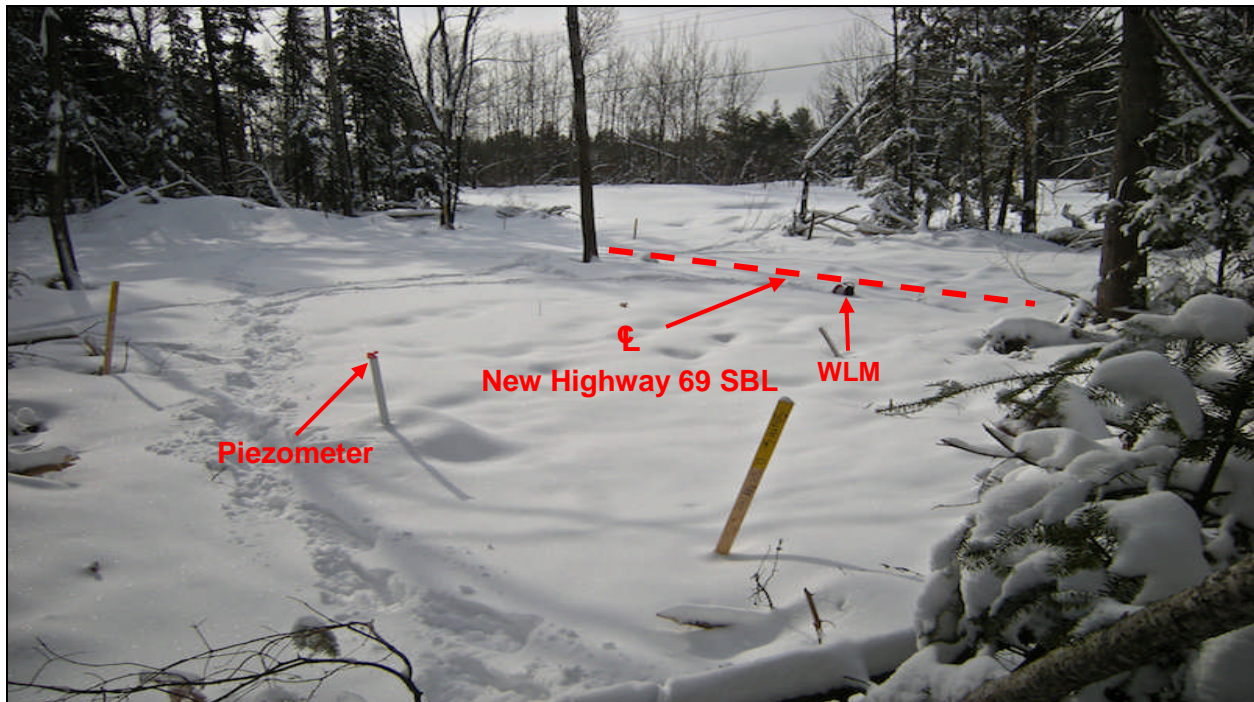
Site Photographs



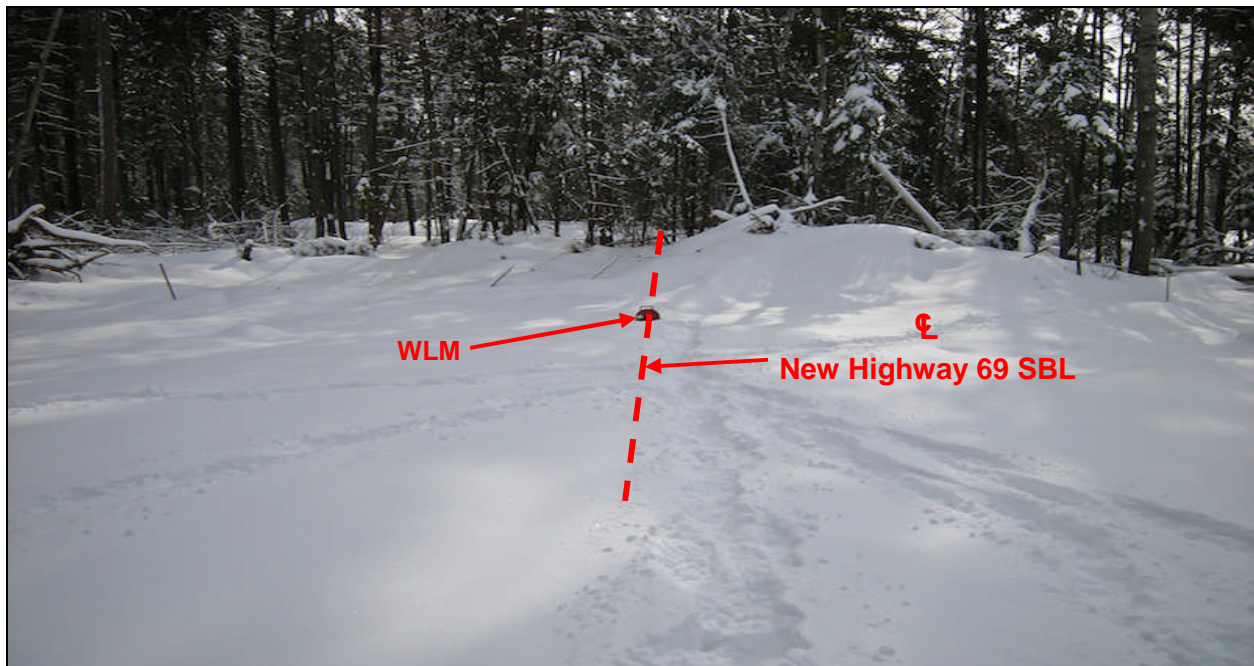
Photograph 1: Viewing north towards the north abutment, approximate Sta. 10+175. Wooded area in the background of the photo. The ground is covered in snow. Water level meter (WLM) has been placed in the middle of the north abutment. (February, 2009)



Photograph 2: Viewing east towards the north abutment, approximate Sta. 10+175. Note flat terrain and wooded area in the background of the photograph. Water level meter (WLM) has been placed in the middle of the north abutment. (February, 2009)



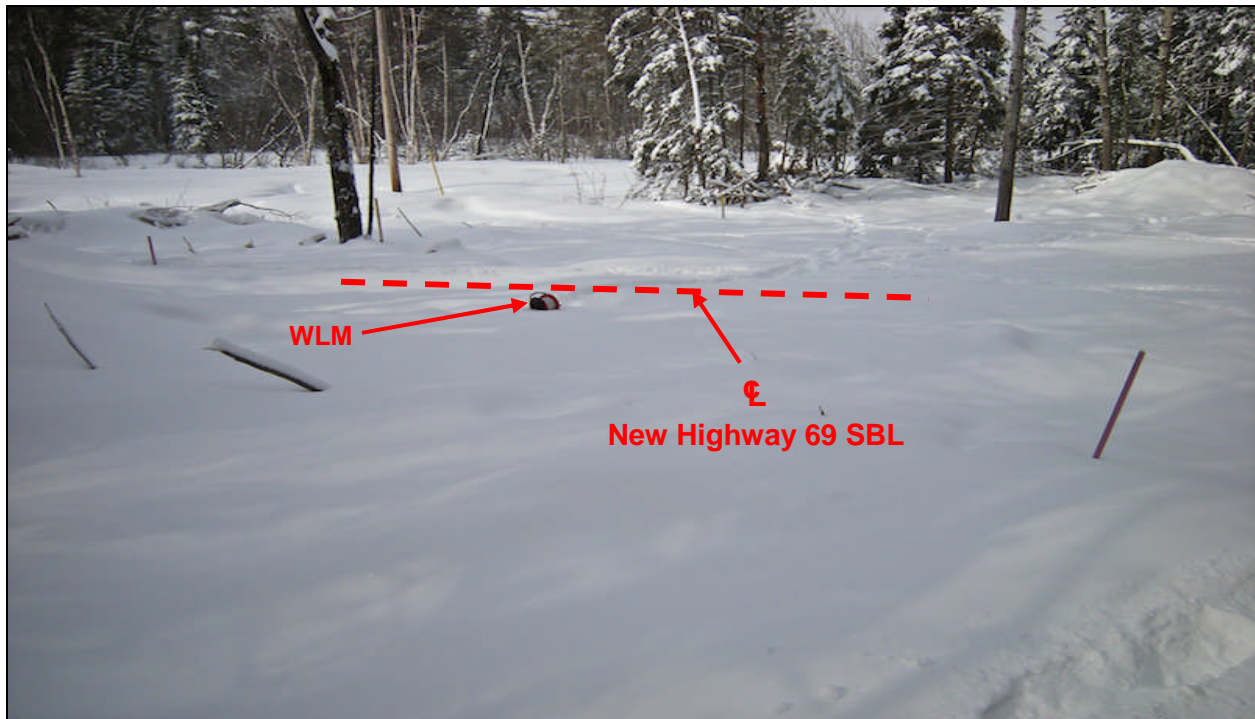
Photograph 3: Viewing south west towards the north abutment, approximate Sta.10+175. Piezometer installed in borehole SP-S13 in the foreground of the photograph. Water level meter (WLM) is marking the middle of the north abutment. (February, 2009)



Photograph 4: Looking south towards the south abutment, approximate Sta. 10+161. The ground is covered in snow. Wooded area in the background of the photograph. Water level meter (WLM) is marking the middle of the south abutment. (February, 2009)



Photograph 5: Looking east towards the south abutment, approximate Sta. 10+161. Wooded area in the background of the photograph. Water level meter (WLM) marks the middle of the south abutment. (February, 2009)



Photograph 6: Looking west towards the south abutment, approximate Sta. 10+161. Note generally flat ground. Water level meter (WLM) has been placed in the middle of the south abutment. (February, 2009)



Photograph 7: Viewing north towards the south abutment, approximate Sta. 10+161. Wooded area in the background of the photograph. The water level meter (WLM) has been placed in the middle of the south abutment. (February, 2009)



APPENDIX B

Rock Core Photographs



Photograph 1: Rock cores retrieved from borehole SP-S3. Samples RC-7 to RC-9.



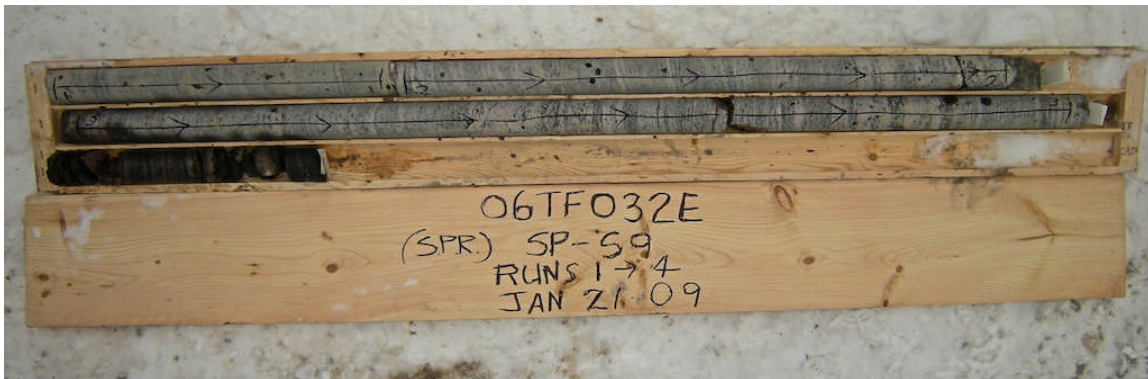
Photograph 2: Rock cores retrieved from borehole SP-S4. Samples RC-10 to RC-12.



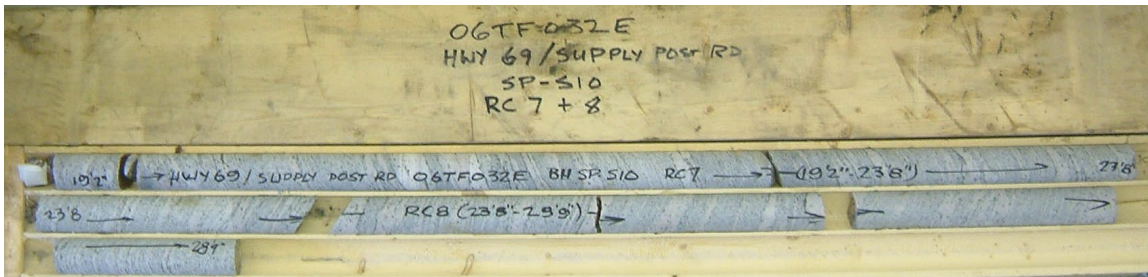
Photograph 3: Rock cores retrieved from borehole SP-S5. Samples RC-8 to RC-10.



Photograph 4: Rock cores retrieved from borehole SP-S6. Samples RC-10 to RC-12.



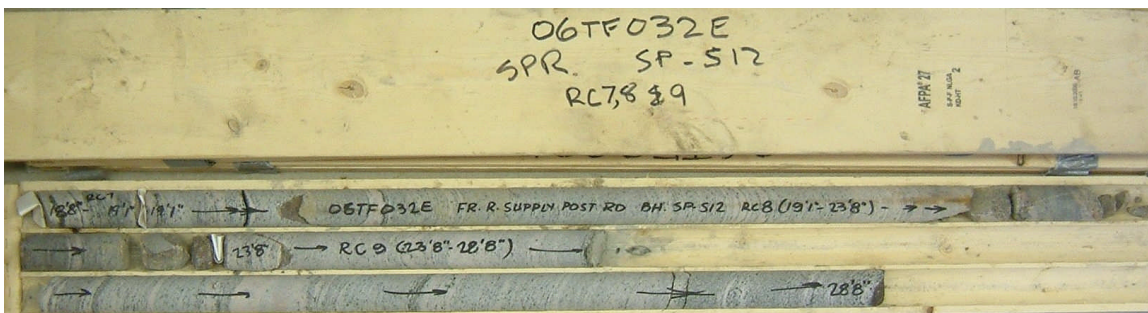
Photograph 5: Rock cores retrieved from borehole SP-S9. Samples RC-10 to RC-13.



Photograph 6: Rock cores retrieved from borehole SP-S10. Samples RC-7 and RC-8.



Photograph 7: Rock cores retrieved from borehole SP-S11. Samples RC-8 to RC-11.



Photograph 8: Rock cores retrieved from borehole SP-S12. Samples RC-7 to RC-9.