


SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5203					
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:					
CAT E120B		Coordinates: Z08V N6818202.3m E274346.2m		ELEVATION: 931m					
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED <input checked="" type="checkbox"/> DCPT <input type="checkbox"/> AUGER <input checked="" type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE							
ELEV. (m)	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>PLASTIC M.C LIQUID</p> <p>0 20 40 60 80 100</p> </div> <div style="width: 30%;"> <p>★ Percent Fines★</p> <p>◆ Percent Sand◆</p> <p>■ Percent Gravel■</p> <p>0 20 40 60 80 100</p> </div> </div>			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
930				001	gw-gm		ORGANICS	1	
929				002	gp-gm		WELL-GRADED GRAVEL with SILT and SAND -Dark brown, damp, loose -5-10% Cobbles	2	
928							POORLY GRADED GRAVEL with SILT and SAND -10-15% Cobbles	3	
927				003	gw		WELL-GRADED GRAVEL with SAND	4	
							END of HOLE -Target depth reached		



SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5204					
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:					
CAT E120B		Coordinates: Z08V N6818249.4m E274252.5m		ELEVATION: 864m					
SAMPLE TYPE		UNDISTURBED		DCPT					
		AUGER		BULK					
		SPT		CORE					
ELEV. (m)	★ Percent Fines★ ◆ Percent Sand◆ ■ Percent Gravel■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)	
	PLASTIC M.C LIQUID 0 20 40 60 80 100								
863	★	◆	■	004	gw		ORGANICS	1	
							WELL-GRADED GRAVEL with SAND -Dark greyish brown, damp, loose -10-15% Cobbles		
862	★	◆	■	005	gp		POORLY GRADED GRAVEL with SAND	2	
861							Sand Seam, 0.4m	3	
860	★	◆	■	006	gw-gm		WELL-GRADED GRAVEL with SILT and SAND -Brown -5-10% Cobbles	4	
							END of HOLE -Target depth reached		
		Highways and Public Works Transportation Engineering Branch				LOGGED BY: G.Kennedy		Termination Depth: 4.2m	
						COMPILED BY: R.Stilwell		Complete: 8/11/2015 2:46:00 PM	
						REVIEWED BY:		Pit #: 115G-06 Page 1 of 1	

SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5205				
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:				
CAT E120B		Coordinates: Z08V N6818371.7m E274281.8m		ELEVATION: 858m				
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE						
ELEV. (m)	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>PLASTIC M.C. LIQUID</p> <p>0 20 40 60 80 100</p> </div> <div style="width: 45%;"> <p>★ Percent Fines★</p> <p>◆ Percent Sand◆</p> <p>■ Percent Grave■</p> <p>0 20 40 60 80 100</p> </div> </div>		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						ORGANICS		
						SANDY SILT -Brownish grey, damp, loose		
						SILT with SAND		
857						END of HOLE -Permafrost	1	
856							2	
855							3	
854							4	



SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5206				
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:				
CAT E120B		Coordinates: Z08V N6818460.2m E274296.9m		ELEVATION: 857m				
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE						
ELEV. (m)	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>PLASTIC M.C LIQUID</p> <p>0 20 40 60 80 100</p> </div> <div style="width: 45%;"> <p>★ Percent Fines★</p> <p>◆ Percent Sand◆</p> <p>■ Percent Gravel■</p> <p>0 20 40 60 80 100</p> </div> </div>		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
857	●	■ ★ ◆	009	sm		ORGANICS SILTY SAND -Greyish brown, damp, compact -Water coming in -Frozen END of HOLE -Refusal, frozen	1	
855							2	
854							3	
853							4	




SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5207				
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:				
CAT E120B		Coordinates: Z08V N6818573.2m E274317.9m		ELEVATION: 855m				
SAMPLE TYPE		UNDISTURBED		DCPT				
		AUGER		BULK				
		SPT		CORE				
ELEV. (m)	★ Percent Fines★ ◆ Percent Sand◆ ■ Percent Gravel■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C LIQUID 0 20 40 60 80 100							
854	●	★	◆	■	010	gp	ORGANICS POORLY GRADED GRAVEL with SAND -Brown, damp, loose -5-10% Cobbles	1
853	●	★	◆	■	011	gp	POORLY GRADED GRAVEL with SAND -Greyish brown, compact -Frozen	2
852							END of HOLE -Refusal, frozen	3
851								4



SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5208									
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:									
CAT E120B		Coordinates: Z08V N6818598m E274414.1m		ELEVATION: 851m									
SAMPLE TYPE		UNDISTURBED		DCPT		AUGER		BULK		SPT		CORE	
ELEV. (m)	PLASTIC M.C. LIQUID		★ Percent Fines★		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION		Depth (m)		
	0 20 40 60 80 100		◆ Percent Sand◆									■ Percent Gravel■	
									ORGANICS				
									SILT -Brown, damp, soft				
850						012	ml		POORLY GRADED GRAVEL with SAND -Dark brown, damp, loose -10-15% Cobbles	1			
849						013	gp				2		
848									WELL-GRADED GRAVEL with SAND -Greyish brown, wet -15-20% Cobbles		3		
847						014	gw		END of HOLE -Water table		4		



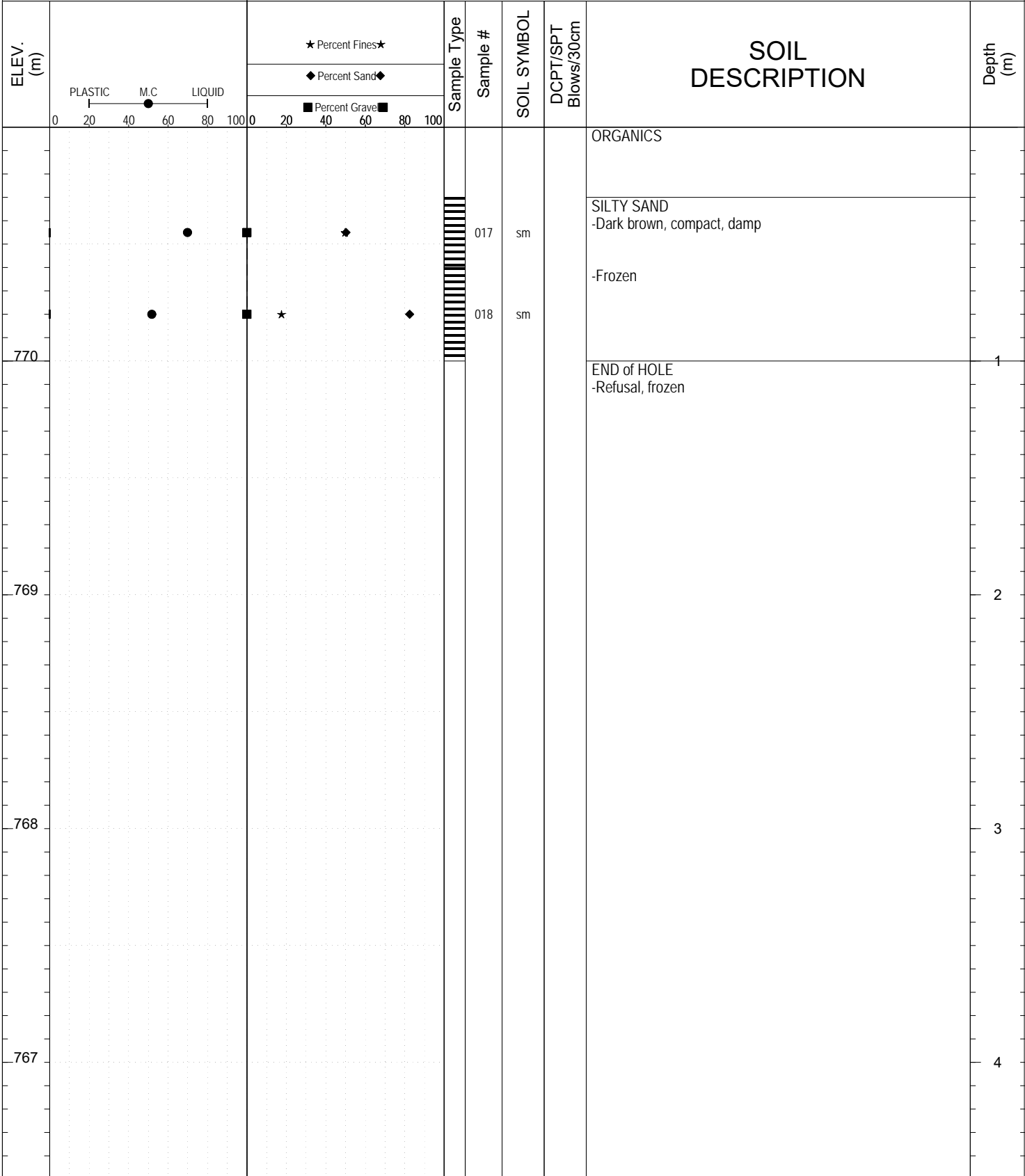
SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5209		
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:		
CAT E120B		Coordinates: Z08V N6818524m E274387.9m		ELEVATION: 773m		
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED		<input type="checkbox"/> DCPT		
		<input type="checkbox"/> AUGER		<input type="checkbox"/> BULK		
		<input checked="" type="checkbox"/> SPT		<input type="checkbox"/> CORE		
ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		SOIL DESCRIPTION	Depth (m)
	0	20	40	60		
772					ORGANICS	
					SILTY SAND -Grey, wet, compact	
					SILTY GRAVEL with SAND -Grey, very dense, frozen	
					END of HOLE -Refusal, frozen	1
771						2
770						3
769						4
 Highways and Public Works Transportation Engineering Branch		LOGGED BY: G.Kennedy		Termination Depth: 1m		
		COMPILED BY: R.Stilwell		Complete: 8/12/2015 8:47:00 AM		
		REVIEWED BY:		Pit #: 115G-06		Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT Alaska Highway SOURCE/TP#: 859A-5210

Chuck's Exploration Burwash Creek, km 1717.8 PROJECT NO:

CAT E120B Coordinates: Z08V N6818451.4m E274381.8m ELEVATION: 771m

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: G.Kennedy	Termination Depth: 1m
COMPILED BY: R.Stilwell	Complete: 8/12/2015 9:21:00 AM
REVIEWED BY:	Pit #: 115G-06 Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Alaska Highway		SOURCE/TP#: 859A-5212									
Chuck's Exploration		Burwash Creek, km 1717.8		PROJECT NO:									
CAT E120B		Coordinates: Z08V N6818147.4m E274197.2m		ELEVATION: 826m									
SAMPLE TYPE		UNDISTURBED		DCPT		AUGER		BULK		SPT		CORE	
ELEV. (m)	PLASTIC M.C. LIQUID		★ Percent Fines★		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION		Depth (m)		
	0	20	40	60								80	100
									ORGANICS				
						019	sm		SILTY SAND -Brown, damp, loose				
825						020	gw		WELL-GRADED GRAVEL with SAND -Brown, damp, loose -10-15% Cobbles, odd boulder	1			
824										2			
823									POORLY GRADED GRAVEL with SAND -Greyish brown -15-20% Cobbles	3			
822						021	gp			4			
									END of HOLE -Target depth reached				



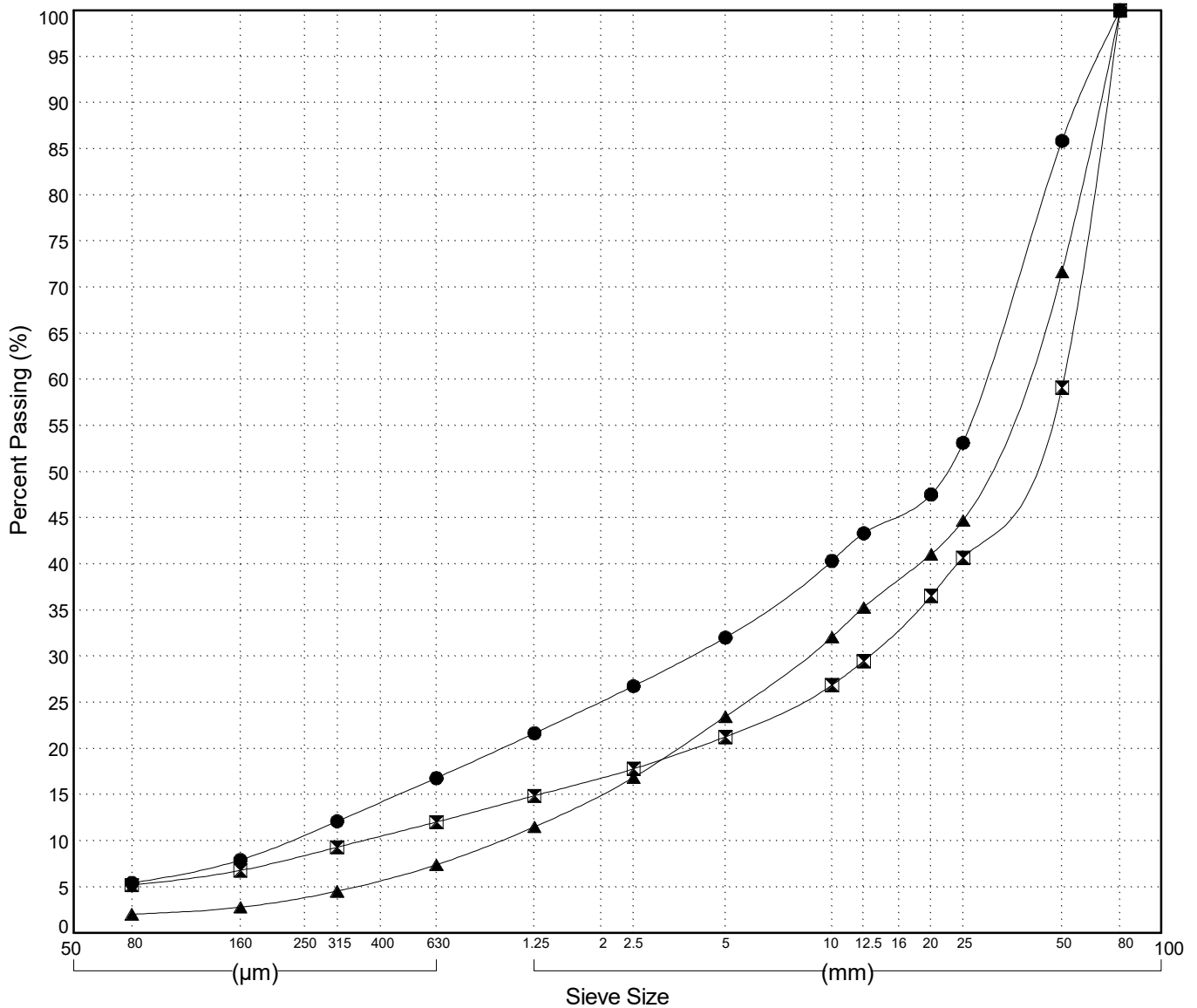
GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5203
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818202.3m E274346.2m	ELEVATION: 931m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 001	2016-212	0.2 to 0.6	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	5.3	NP	NP	NP	2.1	129.3
☒ 002	2016-213	2.0 to 2.4	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	2.6	NP	NP	NP	8.8	134.4
▲ 003	2016-214	3.6 to 4.0	WELL-GRADED GRAVEL with SAND(GW)	2.0	NP	NP	NP	1.9	38.1

Field#	Lab#	% PASSING	Sieve Size (mm)													% Breakdown		
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	Gravel	Sand
● 001	2016-212	100.0	100.0	85.9	53.1	47.5	43.3	40.3	32.0	26.8	21.7	16.8	12.1	7.9	5.4	68.0	26.6	5.4
☒ 002	2016-213	100.0	100.0	59.1	40.7	36.5	29.5	26.9	21.3	17.8	14.9	12.0	9.3	6.8	5.2	78.7	16.1	5.2
▲ 003	2016-214	100.0	100.0	71.7	44.7	41.1	35.3	32.1	23.5	16.9	11.5	7.4	4.5	2.8	2.1	76.5	21.4	2.1

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



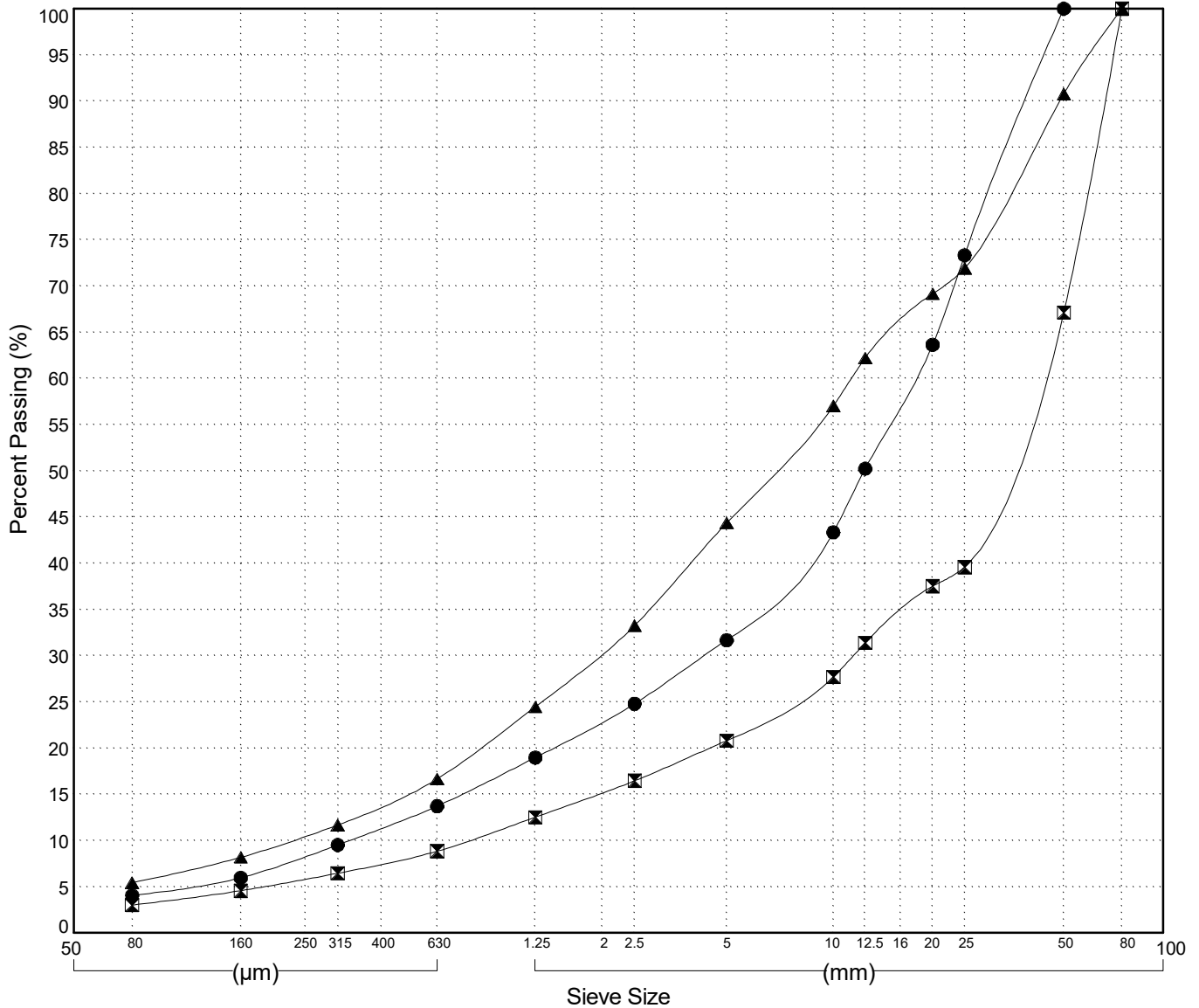
GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5204
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818249.4m E274252.5m	ELEVATION: 864m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 004	2016-215	0.4 to 0.6	WELL-GRADED GRAVEL with SAND(GW)	3.9	NP	NP	NP	2.8	51.7
☒ 005	2016-216	2.2 to 2.6	POORLY GRADED GRAVEL with SAND(GP)	3.2	NP	NP	NP	4.0	53.5
▲ 006	2016-217	3.4 to 3.8	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	3.3	NP	NP	NP	1.4	50.0

Field#	Lab#	% PASSING	Sieve Size (mm)													% Breakdown		
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	Gravel	Sand
● 004	2016-215	100.0	100.0	100.0	73.3	63.6	50.2	43.4	31.7	24.8	19.0	13.7	9.5	6.0	4.1	68.3	27.6	4.1
☒ 005	2016-216	100.0	100.0	67.1	39.6	37.5	31.4	27.7	20.8	16.5	12.5	8.8	6.5	4.6	3.0	79.2	17.8	3.0
▲ 006	2016-217	100.0	100.0	90.8	71.9	69.2	62.2	57.0	44.3	33.3	24.5	16.7	11.7	8.2	5.4	55.7	38.9	5.4

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

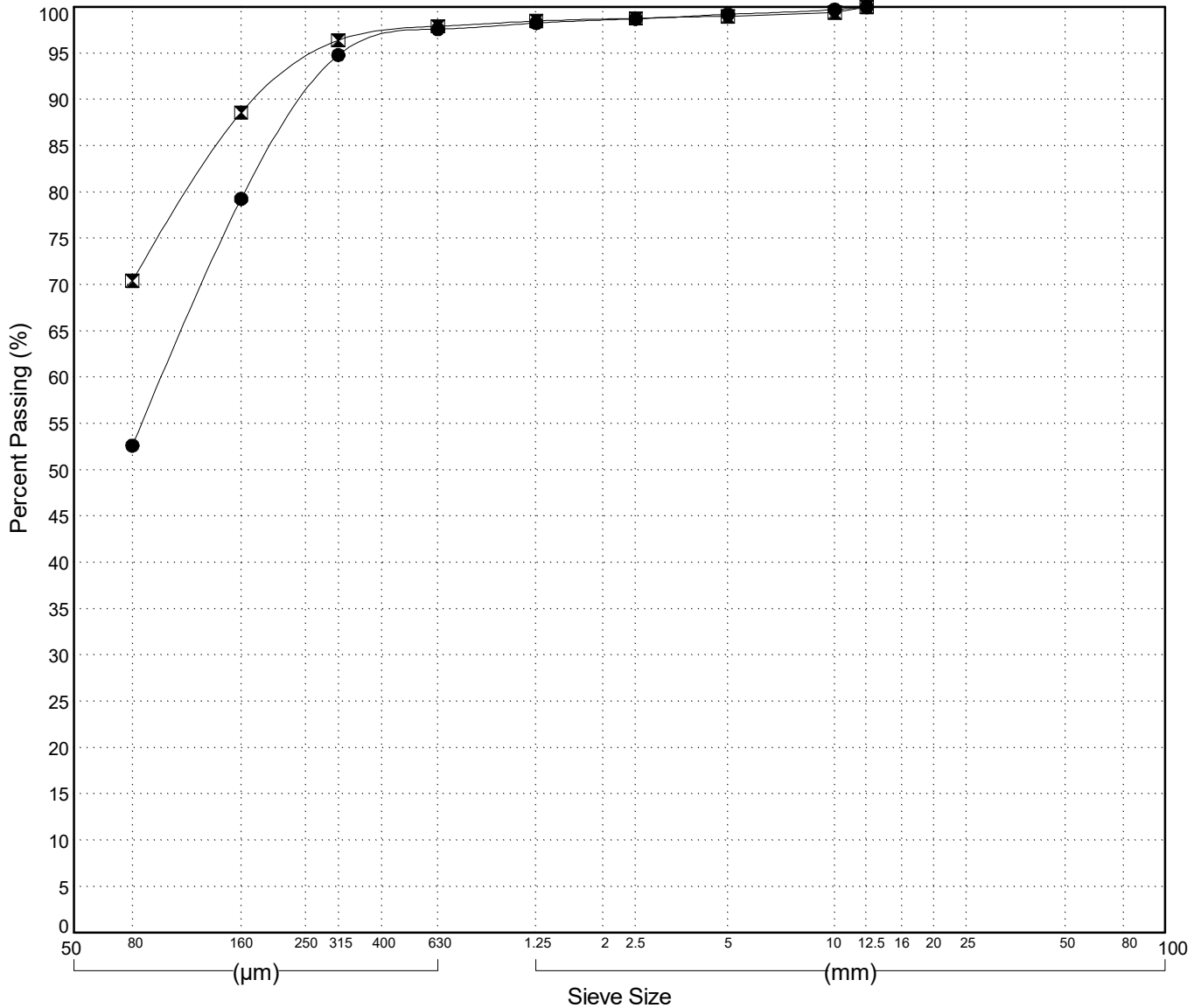


GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5205
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818371.7m E274281.8m	ELEVATION: 858m

Master Revised July 2013

Field#	Lab#	Depth	Classification													%H ₂ O	LL	PL	PI	C _c	C _u
● 007	2016-218	0.2 to 0.6	SANDY SILT(ML)													38.1	NP	NP	NP		
☒ 008	2016-219	0.6 to 1.0	SILT with SAND(ML)													51.3	NP	NP	NP		
Field#	Lab#	% PASSING	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown				
			Gravel	Sand	Silt	Clay															
● 007	2016-218	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	99.2	98.7	98.3	97.6	94.8	79.3	52.6	0.8	46.6	52.6		
☒ 008	2016-219	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	99.0	98.8	98.5	97.9	96.4	88.6	70.4	1.0	28.5	70.4		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: G.Kennedy
COMPILED BY: R.Stilwell
REVIEWED BY:

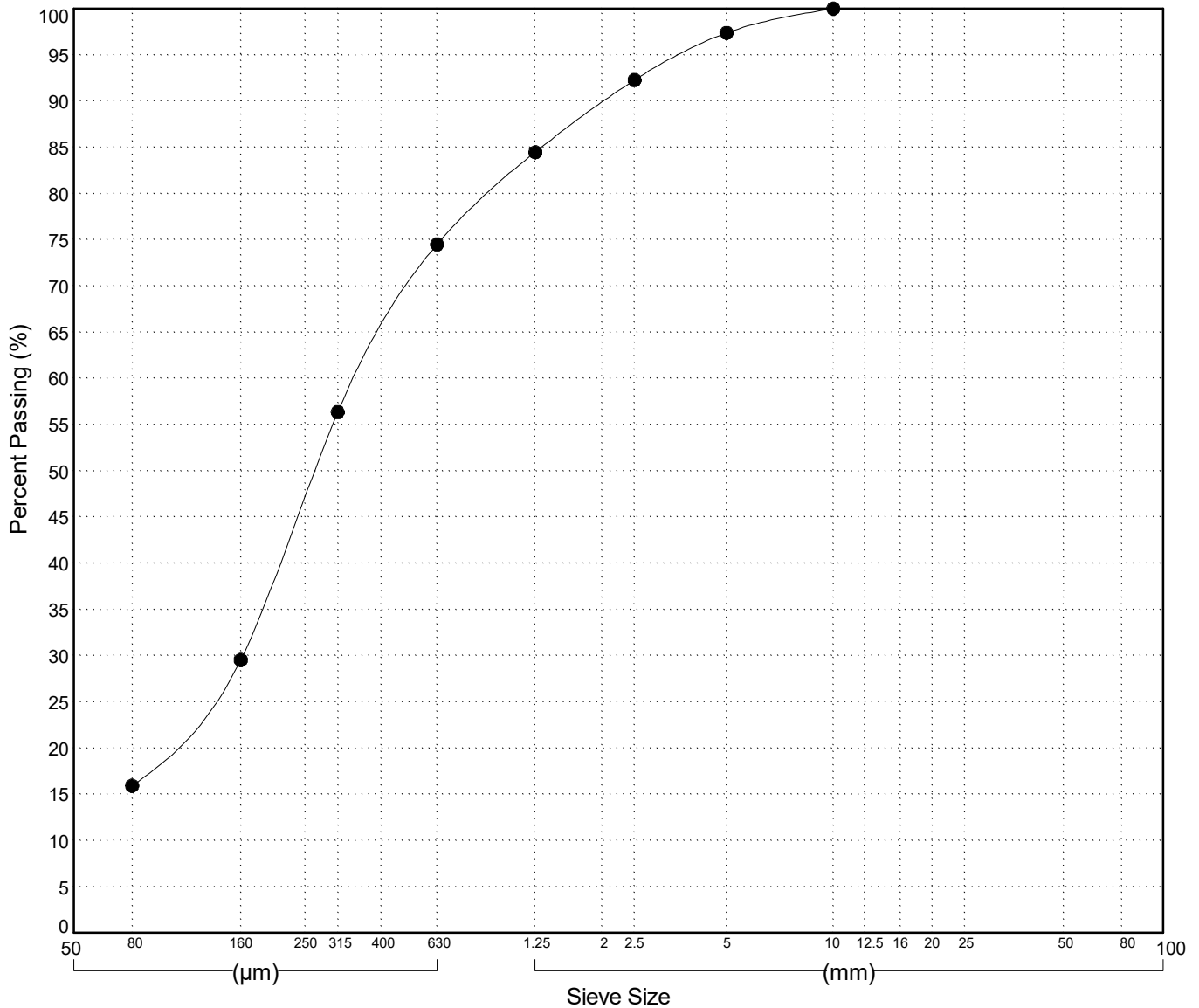
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GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5206
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818460.2m E274296.9m	ELEVATION: 857m

Master Revised July 2013

Field#	Lab#	Depth	Classification											%H ₂ O	LL	PL	PI	C _c	C _u	
● 009	2016-220	0.2 to 0.6	SILTY SAND(SM)											21.9	NP	NP	NP			
Field#	Lab#		100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown			
● 009	2016-220	% PASSING	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.4	92.3	84.5	74.5	56.4	29.5	15.9	Gravel	Sand	Silt	Clay
																	2.6	81.4	15.9	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: G.Kennedy
COMPILED BY: R.Stilwell
REVIEWED BY:

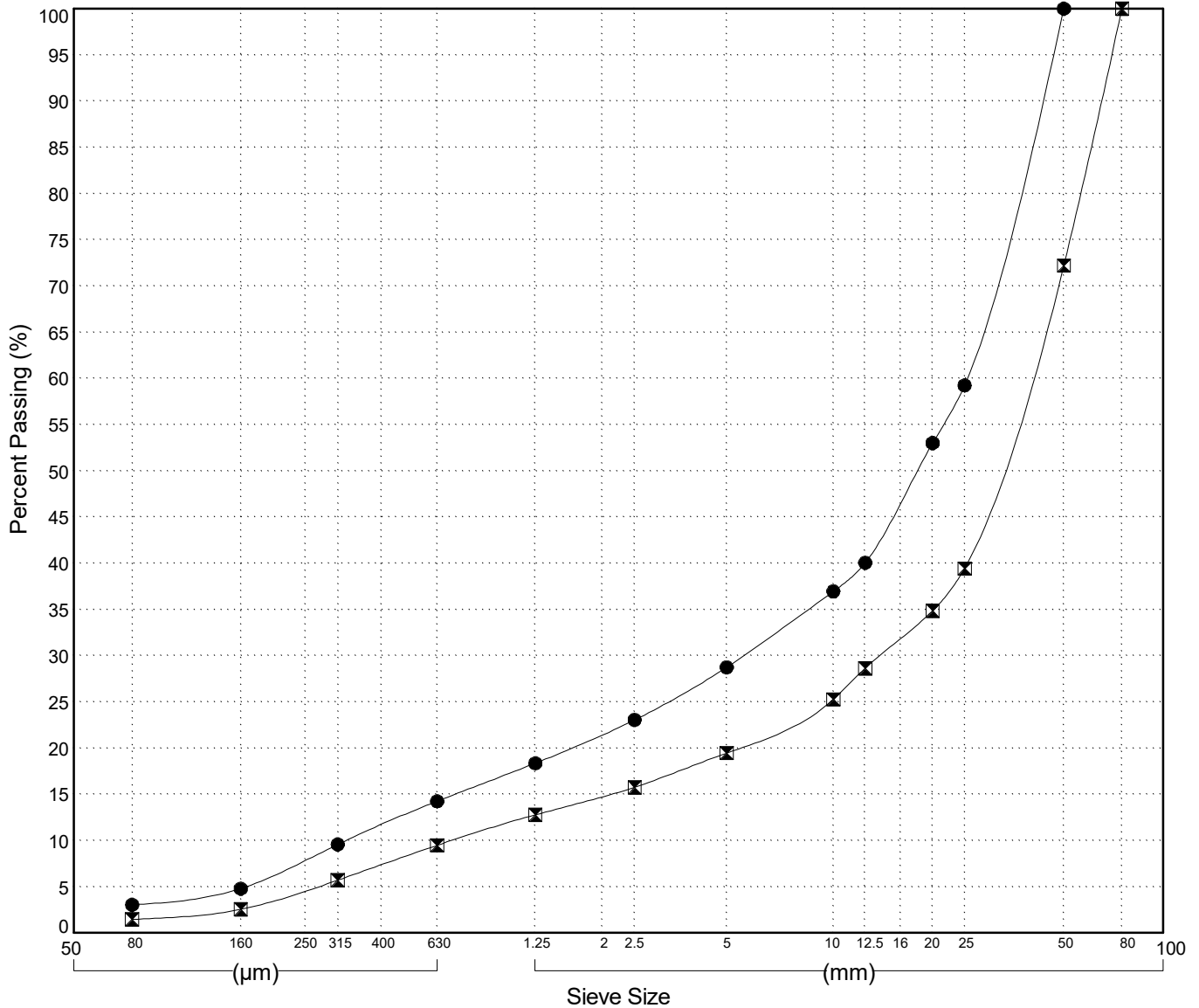
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Complete: 8/11/2015 3:54:00 PM

GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5207
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818573.2m E274317.9m	ELEVATION: 855m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu									
● 010	2016-221	0.4 to 0.8	POORLY GRADED GRAVEL with SAND(GP)	4.5	NP	NP	NP	3.3	75.5									
☒ 011	2016-222	1.8 to 2.2	POORLY GRADED GRAVEL with SAND(GP)	3.8	NP	NP	NP	7.1	55.1									
Field#	Lab#							% Breakdown										
								Gravel	Sand	Silt	Clay							
● 010	2016-221	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	71.3	25.7	3.0
☒ 011	2016-222	100.0	100.0	72.2	39.4	34.9	28.6	25.3	19.5	15.8	12.8	9.5	5.7	2.6	1.5	80.5	18.0	1.5

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: G.Kennedy
COMPILED BY: R.Stilwell
REVIEWED BY:

Pit # 115G-06
Complete: 8/11/2015 2:29:00 PM

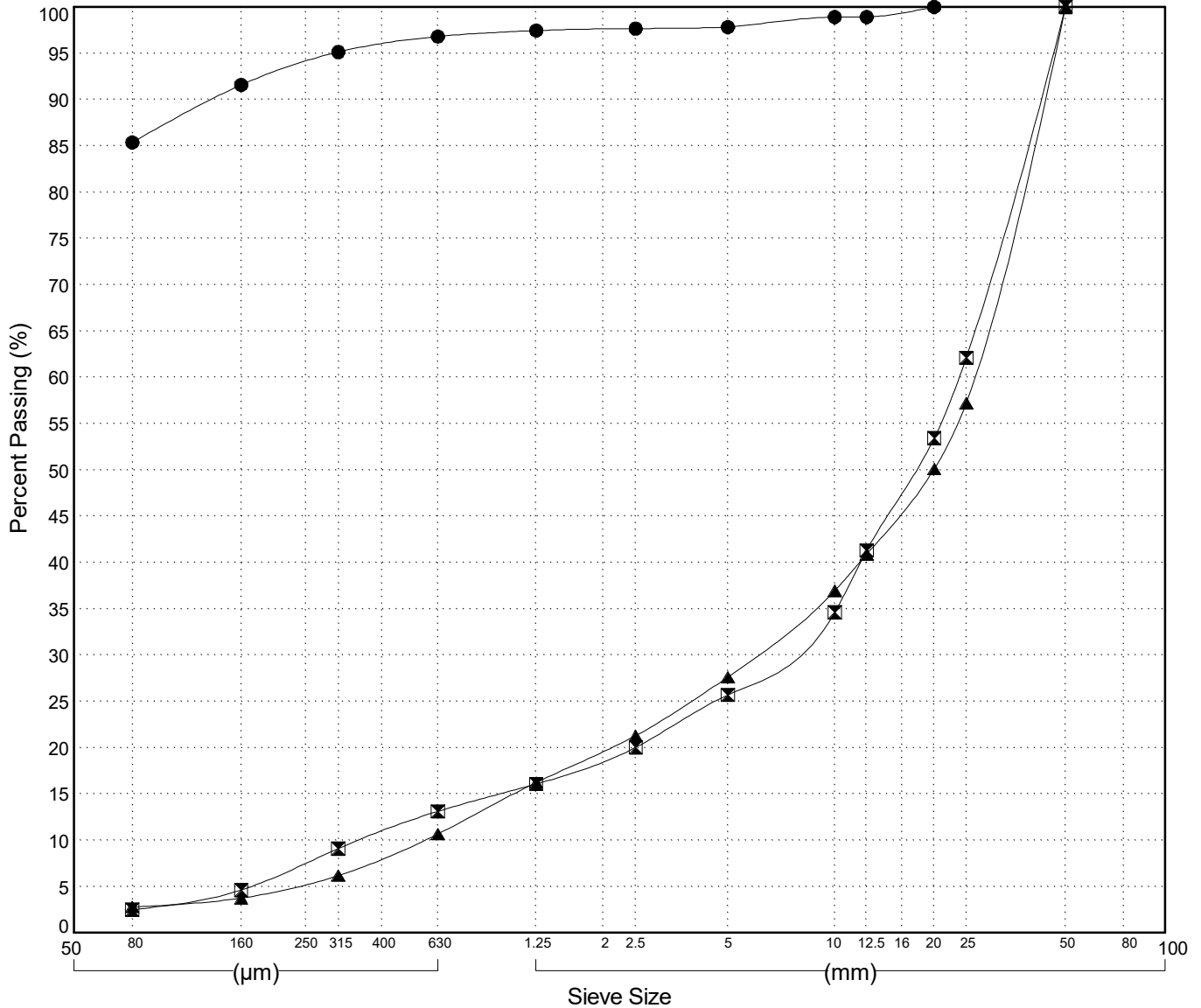
GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5208
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates:Z08V N6818598m E274414.1m	ELEVATION: 851m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 012	2016-223	0.3 to 0.8	SILT(ML)	78.1	NP	NP	NP		
☒ 013	2016-224	1.0 to 1.4	POORLY GRADED GRAVEL with SAND(GP)	6.5	NP	NP	NP	5.3	64.5
▲ 014	2016-225	3.3 to 3.8	WELL-GRADED GRAVEL with SAND(GW)	4.6	NP	NP	NP	2.2	46.0

Field#	Lab#	% PASSING	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown		
																	Gravel	Sand	Silt / Clay
● 012	2016-223	100.0	100.0	100.0	100.0	100.0	98.9	98.9	97.8	97.7	97.4	96.8	95.1	91.6	85.4		2.2	12.5	85.4
☒ 013	2016-224	100.0	100.0	100.0	62.1	53.4	41.3	34.6	25.7	20.0	16.1	13.1	9.1	4.6	2.5		74.3	23.2	2.5
▲ 014	2016-225	100.0	100.0	100.0	57.2	50.1	40.9	37.0	27.6	21.3	16.2	10.7	6.2	3.8	2.8		72.4	24.8	2.8

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

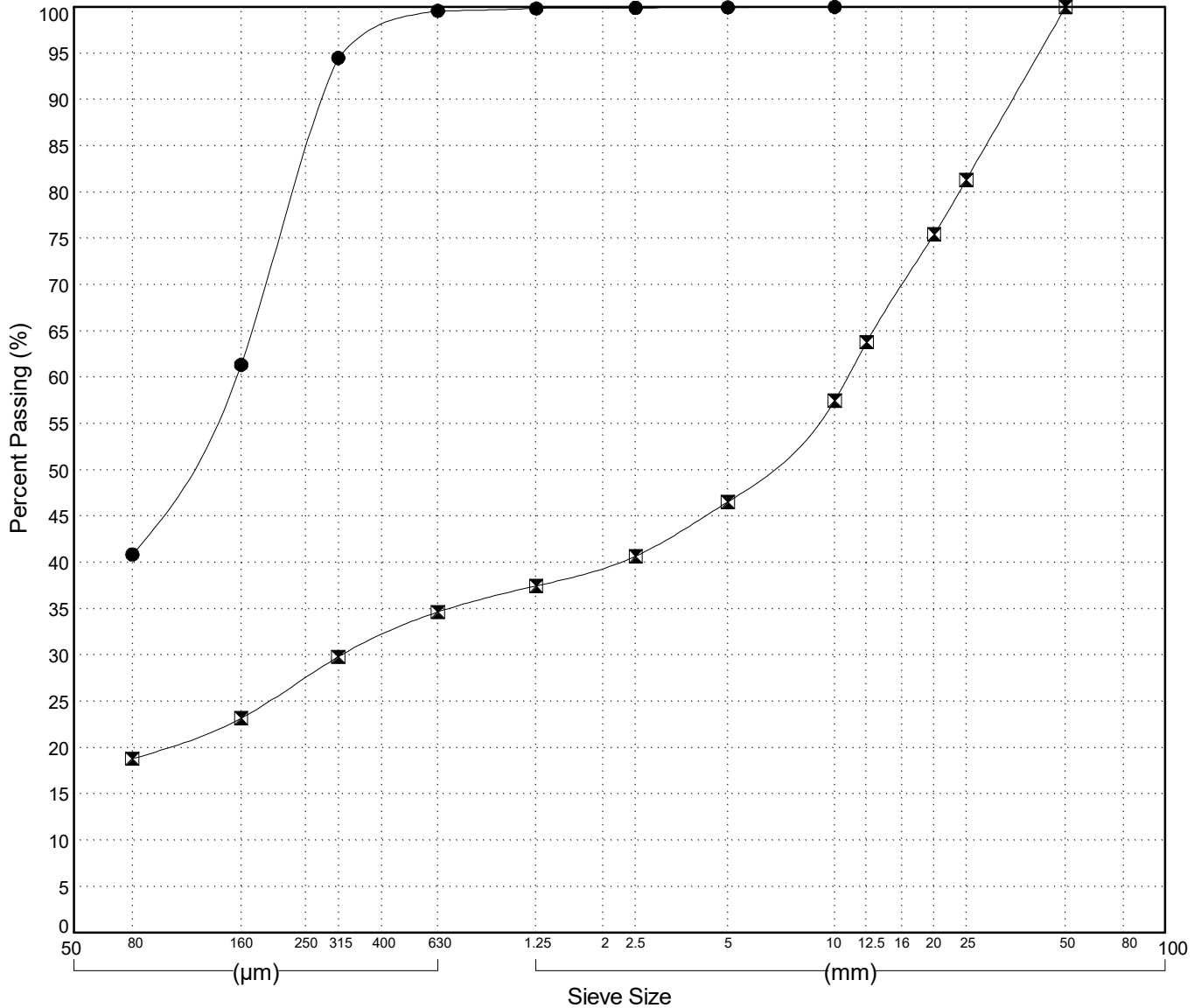


GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5209
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818524m E274387.9m	ELEVATION: 773m

Master Revised July 2013

Field#	Lab#	Depth	Classification											%H ₂ O	LL	PL	PI	C _c	C _u	
● 015	2016-226	0.2 to 0.6	SILTY SAND(SM)											40.4	NP	NP	NP			
☒ 016	2016-227	0.7 to 1.0	SILTY GRAVEL with SAND(GM)											31.5	NP	NP	NP			
Field#	Lab#		100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown			
																	Gravel	Sand	Silt	Clay
● 015	2016-226	% PASSING	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.6	94.5	61.3	40.9	0.1	59.1	40.9	
☒ 016	2016-227	% PASSING	100.0	100.0	100.0	81.3	75.4	63.8	57.5	46.5	40.7	37.5	34.7	29.8	23.2	18.8	53.5	27.7	18.8	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Burwash Creek	SOURCE/TP#: 859A-5210
Chuck's Exploration	km 1717.8	PROJECT NO:
CAT E120B	Coordinates: Z08V N6818451.4m E274381.8m	ELEVATION: 771m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H ₂ O	LL	PL	PI	C _c	C _u
● 017	2016-228	0.3 to 0.6	SILTY SAND(SM)	69.9	NP	NP	NP		
☒ 018	2016-229	0.6 to 1.0	SILTY SAND(SM)	51.8	NP	NP	NP		

Field#	Lab#	% PASSING	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown			
			Gravel	Sand	Silt	Clay														
● 017	2016-228	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.7	99.4	97.8	80.4	49.8	0.0	50.2	49.8		
☒ 018	2016-229	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.7	95.3	38.2	17.5	0.0	82.5	17.5		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

