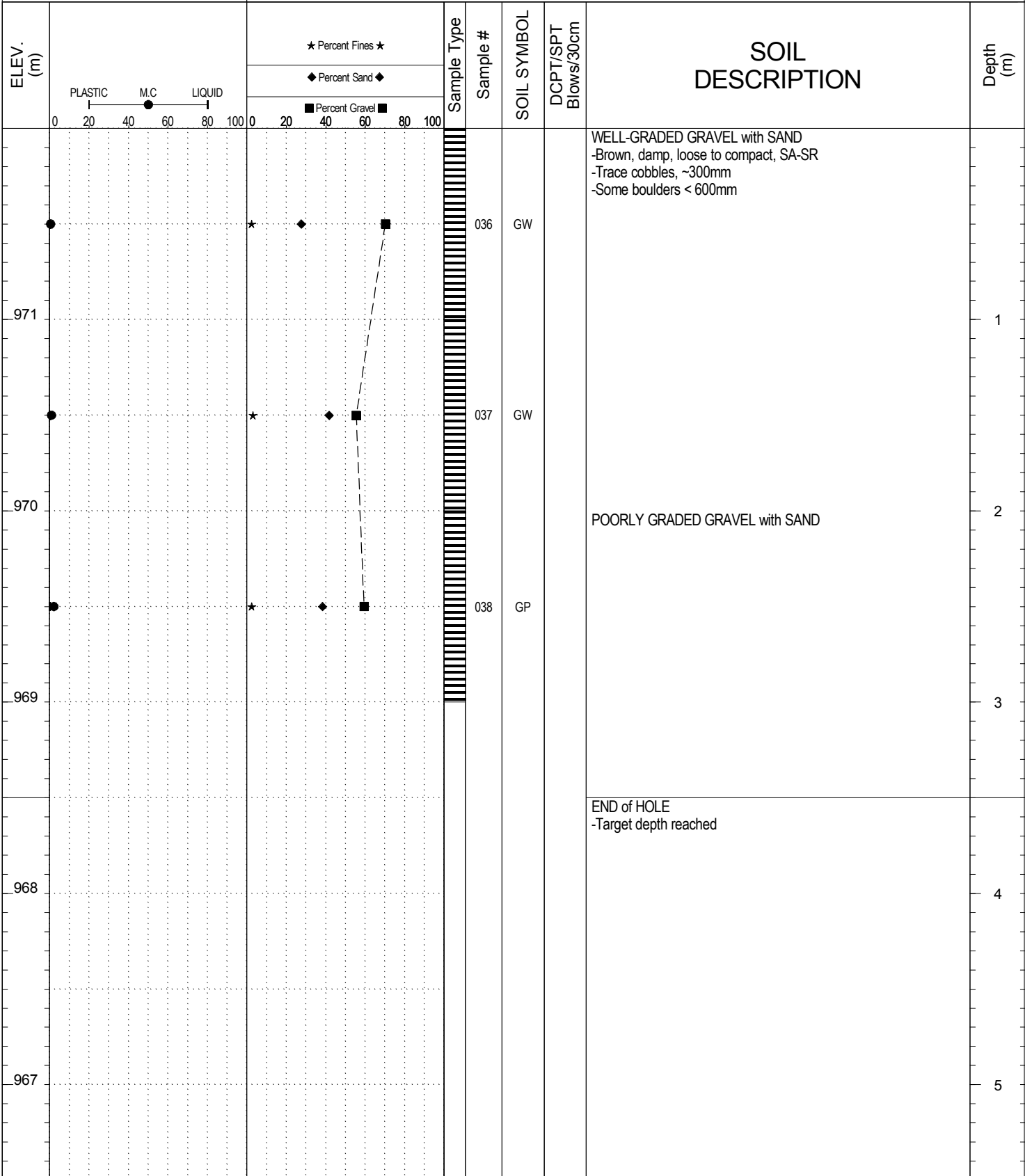


SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5768						
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104						
CAT 320CL		Coordinates: Z09V N6835850m E419373m		ELEVATION: 970m						
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED	<input type="checkbox"/> 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 ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0      20      40      60      80      100		0      20      40      60      80      100							
969	●		■ ★ ◆		042	SM		SILTY SAND -Brown, damp, loose	1	
968								END of HOLE	2	
967									3	
966									4	
965									5	
				LOGGED BY: Dave Lorenzi		Termination Depth: 2m				
				COMPILED BY: R.Stilwell		Complete: 10/3/2017 5:45:00 PM				
				REVIEWED BY:		Pit #: 105G-14      Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5769				
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104				
CAT 320CL		Coordinates: Z09V N6835923m E419348m		ELEVATION: 970m				
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED <input checked="" 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 ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
969				039	GP		POORLY GRADED GRAVEL with SAND -Brown, damp, loose to compact, SA-SR -Trace cobbles, ~300mm	1
968				040	GP			2
967				041	GP		POORLY GRADED SAND with GRAVEL -Brown, damp, loose, SA-SR -Trace cobbles, ~300mm	3
966								4
965							END of HOLE -Target depth reached	5

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway	SOURCE/TP#: 898-5770
Graceland		Gravel Exploration, km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL		Coordinates: Z09V N6835979m E419308m	ELEVATION: 972m

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



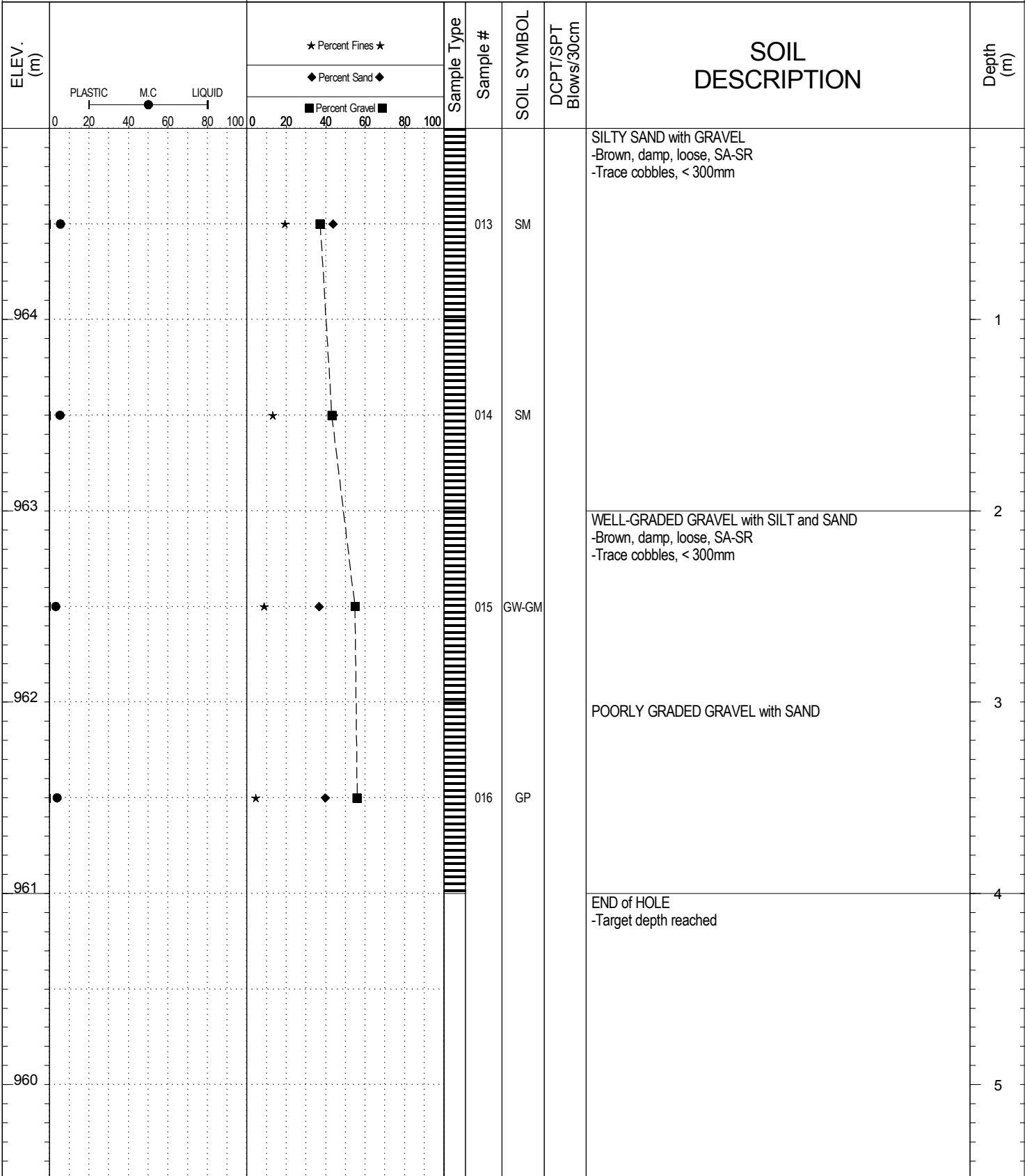
SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5771						
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104						
CAT 320CL		Coordinates: Z09V N6835975m E419482m		ELEVATION: 961m						
SAMPLE TYPE		UNDISTURBED	DCPT	AUGER	BULK	SPT	CORE			
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0      20      40      60      80      100		0      20      40      60      80      100							
960					001	GW		WELL-GRADED GRAVEL with SAND -Brown, damp, loose, SA-SR -Trace cobbles < 300mm	1	
959					002	GM		SILTY GRAVEL with SAND -Some cobbles < 300mm	2	
958					003	SM		SILTY SAND with GRAVEL -Grey, damp, loose, SA-SR -Trace cobbles, ~300mm	3	
957					004	SM			4	
956					005	SM			5	
								END of HOLE -Target depth reached		
						LOGGED BY: Dave Lorenzi		Termination Depth: 5m		
						COMPILED BY: R.Stilwell		Complete: 10/3/2017 10:30:00 AM		
						REVIEWED BY:		Pit #: 105G-14      Page 1 of 1		

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5772					
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104					
CAT 320CL		Coordinates: Z09V N6835983m E419541m		ELEVATION: 957m					
SAMPLE TYPE		UNDISTURBED	DCPT	AUGER	BULK	SPT	CORE		
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0      20      40      60      80      100		0      20      40      60      80      100						
956					006	GP		POORLY GRADED GRAVEL with SAND -Brown, damp, loose, SA-SR -Trace organics, trace cobbles, ~200mm	1
955					007	GP-GM		POORLY GRADED GRAVEL with SILT and SAND -Brown, damp, loose, SA-SR -Trace cobbles, ~300mm	2
954					008	GW		WELL-GRADED GRAVEL with SAND -Trace boulders, trace cobbles, < 400mm	3
953					009	GM		SILTY GRAVEL with SAND	4
952								END of HOLE -Target depth reached	5
						LOGGED BY: Dave Lorenzi		Termination Depth: 4m	
						COMPILED BY: R.Stilwell		Complete: 10/3/2017 11:10:00 AM	
						REVIEWED BY:		Pit #: 105G-14      Page 1 of 1	

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5773							
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104							
CAT 320CL		Coordinates: Z09V N6835928m E419487m		ELEVATION: 961m							
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)		★ Percent Fines ★		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)		
		◆ Percent Sand ◆	■ Percent Gravel ■								
960									1		
959									2		
958									3		
957									4		
956									5		
								LOGGED BY: Dave Lorenzi COMPILED BY: R.Stilwell REVIEWED BY:		Termination Depth: 4m Complete: 10/3/2017 11:40:00 AM Pit #: 105G-14	



SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



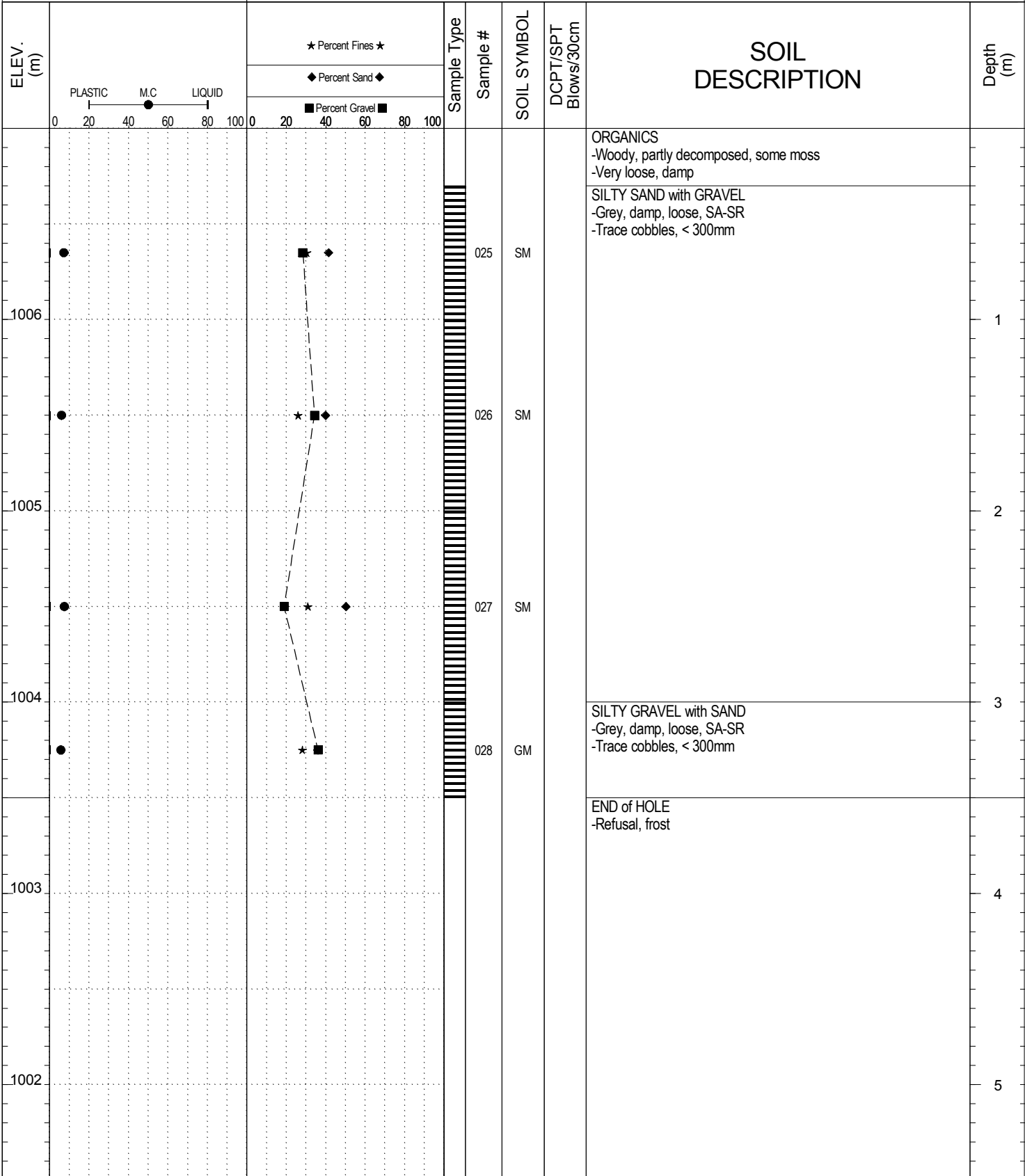
SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5775				
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104				
CAT 320CL		Coordinates: Z09V N6835853m E419415m		ELEVATION: 967m				
SAMPLE TYPE		UNDISTURBED		DCPT				
		AUGER		BULK				
		SPT		CORE				
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	40	60				
967							ORGANICS -Dark brown, loose, damp, fibrous to woody -moss	
966					017	GW-GM	WELL-GRADED GRAVEL with SILT and SAND -Brown, damp, loose, SA-SR -Trace cobbles, < 300mm	1
965					018	GW-GM	-Frozen	2
964							END of HOLE -Refusal, frozen	3
963								4
962								5

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5776					
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104					
CAT 320CL		Coordinates: Z09V N6835807m E419355m		ELEVATION: 974m					
SAMPLE TYPE		<input type="checkbox"/> UNDISTURBED <input checked="" type="checkbox"/> DCPT		<input checked="" 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 SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)	
	0 20 40 60 80 100		0 20 40 60 80 100						
973			★	◆	■	019	GW-GM	ORGANICS -Dark brown, damp, loose, fibrous, woody  WELL-GRADED GRAVEL with SILT and SAND -Grey, damp, loose, SA-SR -Trace cobbles, trace boulders, < 600mm	1
972			★	◆	■	020	GM	SILTY GRAVEL with SAND -Boulder max size < 450mm  SILT -Frozen	2
971								END of HOLE -Refusal, frozen	3
970									4
969									5

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5777									
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104									
CAT 320CL		Coordinates: Z09V N6835791m E419172m		ELEVATION: 1006m									
SAMPLE TYPE		UNDISTURBED		DCPT		AUGER		BULK		SPT		CORE	
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION		Depth (m)		
1006									ORGANICS -Dark brown, damp, loose		0		
1005.5			★ ◆ ■			021	GM		SILTY GRAVEL with SAND -Brown, loose, damp, SA-SR -Trace cobbles, < 300mm		1		
1004.5			★ ◆ ■			022	GM				2		
1003.5			★ ◆ ■			023	GM				3		
1002.5			★ ◆ ■			024	GM		SILTY SAND with GRAVEL -Brown, loose, damp, SA-SR -Trace cobbles, < 300mm		4		
1001.5									END of HOLE -Target depth reached		5		

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway	SOURCE/TP#: 898-5778
Graceland		Gravel Exploration, km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL		Coordinates: Z09V N6835758m E419160m	ELEVATION: 1007m

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5779									
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104									
CAT 320CL		Coordinates: Z09V N6835784m E419219m		ELEVATION: 997m									
SAMPLE TYPE		UNDISTURBED		DCPT		AUGER		BULK		SPT		CORE	
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION		Depth (m)		
997.0									ORGANICS -Dark brown, damp, very loose				
996.5						029	GM		SILTY GRAVEL with SAND -Brown, damp, loose, SA-SR -Trace cobbles, < 300mm		1		
996.0									-Trace boulders, < 400mm				
995.5						030	GM		POORLY GRADED GRAVEL with SILT and SAND		2		
995.0													
994.5						031	GP-GM				3		
994.0													
993.5									END of HOLE -Refusal, frost		4		
993.0													
992.5													
992.0											5		

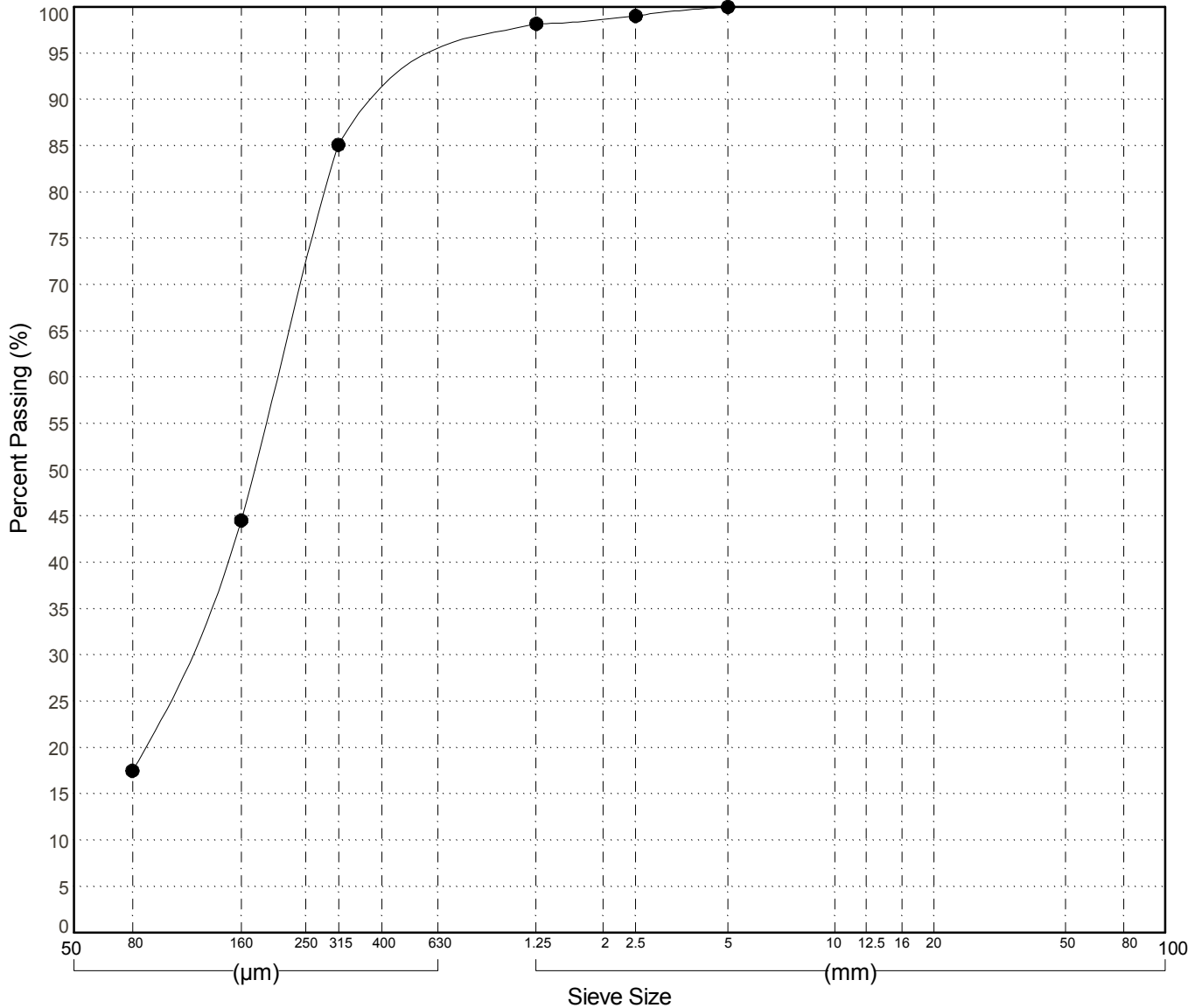
SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 898-5780						
Graceland		Gravel Exploration, km 230.7 LHS		PROJECT NO: 552-202104						
CAT 320CL		Coordinates: Z09V N6835809m E419272m		ELEVATION: 985m						
SAMPLE TYPE		UNDISTURBED	DCPT	AUGER	BULK	SPT	CORE			
ELEV. (m)	PLASTIC      M.C      LIQUID 0      20      40      60      80      100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0      20      40      60      80      100		0      20      40      60      80      100							
984					032	GW-GM		ORGANICS Brown, very loose, damp, partially decomposed WELL-GRADED GRAVEL with SILT and SAND -Brown, damp, loose -Trace cobble, trace boulder < 300mm	1	
983					033	GW		WELL-GRADED GRAVEL with SAND	2	
982					034	GW-GM		WELL-GRADED GRAVEL with SILT and SAND	3	
981					035	GP-GM		POORLY GRADED GRAVEL with SILT and SAND	4	
980								END of HOLE -Target depth reached	5	
						LOGGED BY: Dave Lorenzi		Termination Depth: 4m		
						COMPILED BY: R.Stilwell		Complete: 10/3/2017 4:00:00 PM		
						REVIEWED BY:		Pit #: 105G-14      Page 1 of 1		

GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5768
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835850m E419373m	ELEVATION: 970m

Master Revised June 2017

Field #	Lab #	Depth	Classification											%H2O	LL	PL	PI	Cc	Cu	D10
● 042	633	0.0 to 1.0	SILTY SAND(SM)											6.8	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				
● 042	633	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	98.2	91.7	85.1	44.5	17.5	Gravel	Sand	Silt	Clay	
																0.0	82.5		17.5	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5769
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835923m E419348m	ELEVATION: 970m

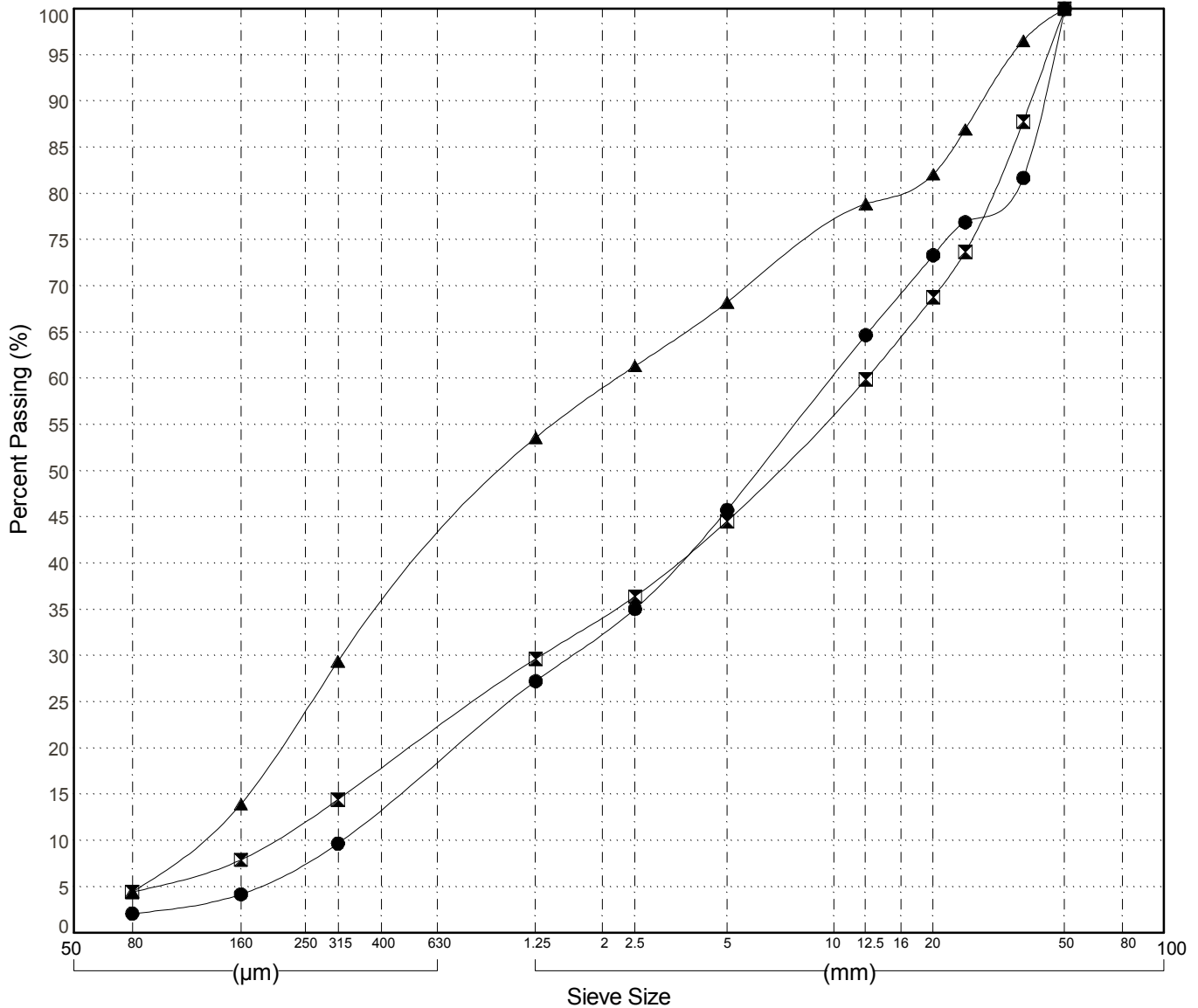
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 039	630	0.0 to 1.0	POORLY GRADED GRAVEL with SAND(GP)	1.8	NP	NP	NP	0.8	30.5	0.323
☒ 040	631	2.0 to 3.0	POORLY GRADED GRAVEL with SAND(GP)	1.1	NP	NP	NP	0.7	63.2	0.199
▲ 041	632	3.0 to 4.0	POORLY GRADED SAND with GRAVEL(SP)	3.4	NP	NP	NP	0.4	19.0	0.117

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	Clay
●	039	630	100.0	100.0	100.0	76.9	73.3	64.7	60.3	45.8	35.1	27.2	18.5	9.7	4.2	2.1	54.2	43.7	2.1
☒	040	631	100.0	100.0	100.0	73.7	68.8	59.9	56.4	44.5	36.4	29.6	22.1	14.4	7.9	4.4	55.5	40.1	4.4
▲	041	632	100.0	100.0	100.0	86.9	82.1	78.9	76.4	68.2	61.3	53.6	41.6	29.4	13.9	4.4	31.8	63.8	4.4

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5770
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835979m E419308m	ELEVATION: 972m

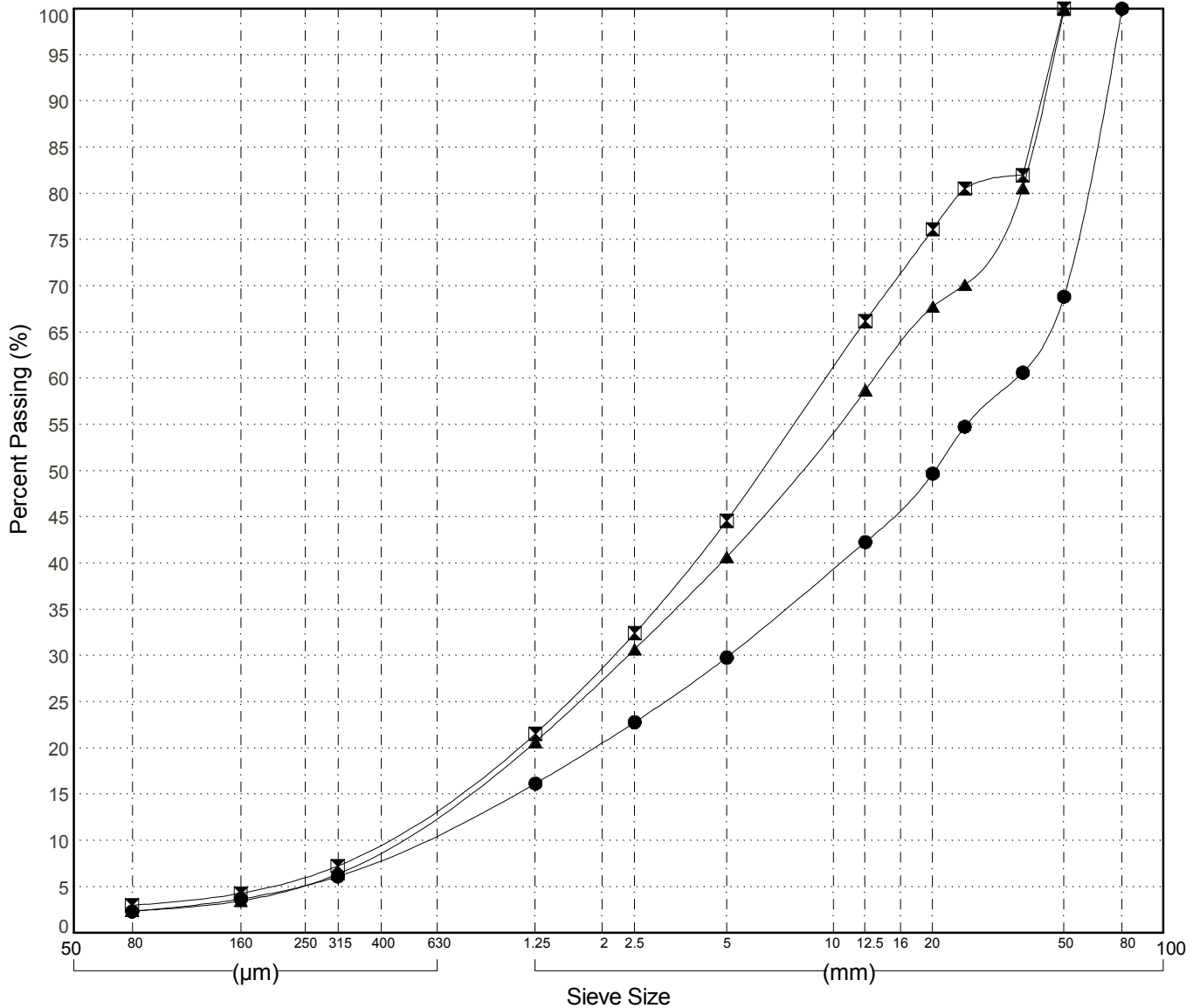
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 036	627	0.0 to 1.0	WELL-GRADED GRAVEL with SAND(GW)	0.5	NP	NP	NP	1.2	66.9	0.537
☒ 037	628	1.0 to 2.0	WELL-GRADED GRAVEL with SAND(GW)	0.9	NP	NP	NP	1.2	23.1	0.411
▲ 038	629	2.0 to 3.0	POORLY GRADED GRAVEL with SAND(GP)	2.1	NP	NP	NP	0.9	29.9	0.447

Field #	Lab #	% PASSING														% 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	Silt	Clay
●	036	627	100.0	100.0	68.8	54.8	49.7	42.3	39.4	29.8	22.8	16.2	11.2	6.1	3.7	2.3	70.2	27.5		2.3
☒	037	628	100.0	100.0	100.0	80.5	76.1	66.2	61.2	44.6	32.4	21.6	14.4	7.2	4.3	3.0	55.4	41.6		3.0
▲	038	629	100.0	100.0	100.0	70.1	67.8	58.7	54.6	40.7	30.7	20.7	13.6	6.4	3.5	2.4	59.3	38.3		2.4

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



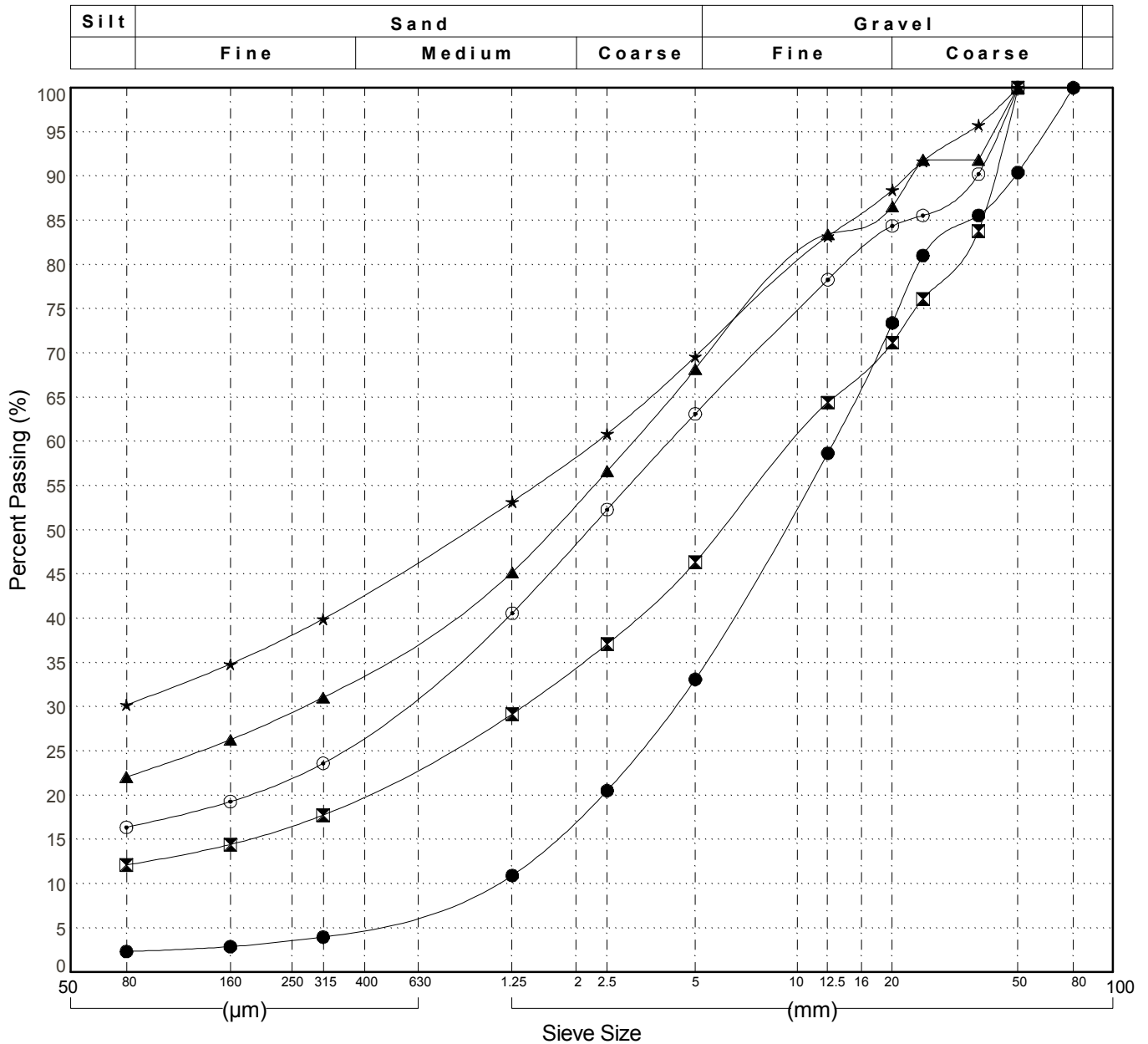
GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5771
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835975m E419482m	ELEVATION: 961m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 001	592	0.0 to 1.0	WELL-GRADED GRAVEL with SAND(GW)	1.6	NP	NP	NP	1.2	12.6	1.039
☒ 002	593	1.0 to 2.0	SILTY GRAVEL with SAND(GM)	3.2	NP	NP	NP	4.9	262.7	
▲ 003	594	2.0 to 3.0	SILTY SAND with GRAVEL(SM)	6.4	NP	NP	NP			
★ 004	595	3.0 to 4.0	SILTY SAND with GRAVEL(SM)	5.7	NP	NP	NP			
⊙ 005	596	4.0 to 5.0	SILTY SAND with GRAVEL(SM)	4.5	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			
		%PASSING														Gravel	Sand	Silt	Clay
● 001	592	100.0	100.0	90.4	81.0	73.4	58.7	52.8	33.1	20.5	10.9	7.5	4.0	2.9	2.3	66.9	30.8	2.3	
☒ 002	593	100.0	100.0	100.0	76.1	71.2	64.4	60.2	46.3	37.1	29.2	23.5	17.8	14.4	12.1	53.7	34.2	12.1	
▲ 003	594	100.0	100.0	100.0	91.9	86.6	83.4	79.9	68.2	56.7	45.2	38.2	31.1	26.3	22.1	31.8	46.1	22.1	
★ 004	595	100.0	100.0	100.0	91.7	88.4	83.2	80.1	69.6	60.9	53.2	46.6	39.9	34.8	30.2	30.4	39.4	30.2	
⊙ 005	596	100.0	100.0	100.0	85.6	84.4	78.3	74.8	63.1	52.3	40.6	32.1	23.6	19.3	16.4	36.9	46.7	16.4	



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5772
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835983m E419541m	ELEVATION: 957m

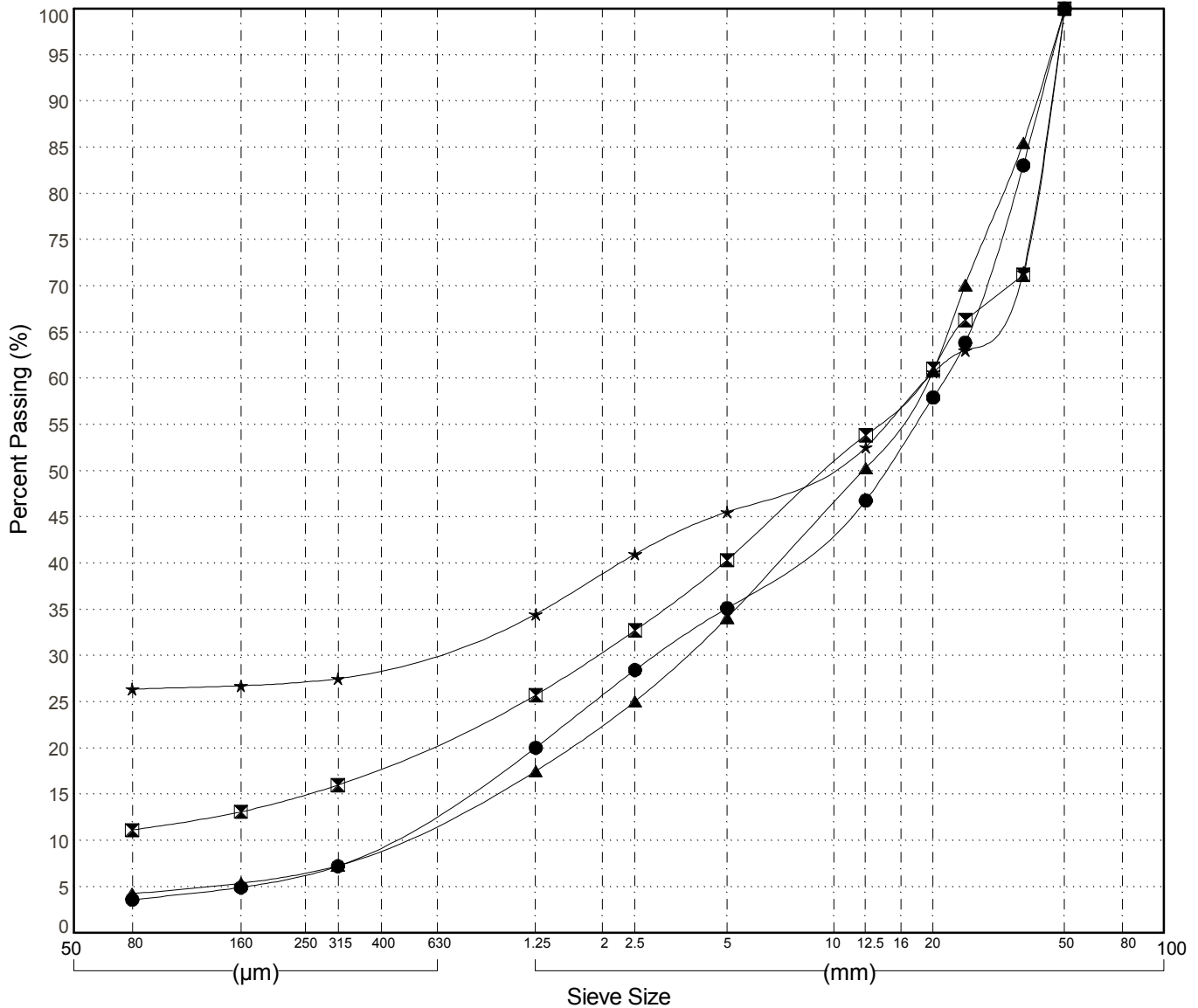
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 006	597	0.0 to 1.0	POORLY GRADED GRAVEL with SAND(GP)	2.5	NP	NP	NP	0.9	50.9	0.425
☒ 007	598	1.0 to 2.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	3.3	NP	NP	NP	4.0	382.2	
▲ 008	599	2.0 to 3.0	WELL-GRADED GRAVEL with SAND(GW)	2.8	NP	NP	NP	1.4	42.4	0.455
★ 009	600	3.0 to 4.0	SILTY GRAVEL with SAND(GM)	3.0	NP	NP	NP			

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	Clay
●	006	597	100.0	100.0	100.0	63.9	57.9	46.8	44.1	35.1	28.4	20.0	13.7	7.2	4.9	3.6	64.9	31.5	3.6
☒	007	598	100.0	100.0	100.0	66.3	61.1	53.9	50.7	40.3	32.7	25.7	20.9	16.0	13.1	11.1	59.7	29.2	11.1
▲	008	599	100.0	100.0	100.0	70.1	60.8	50.3	46.6	34.1	25.1	17.5	12.4	7.3	5.4	4.2	65.9	29.9	4.2
★	009	600	100.0	100.0	100.0	63.0	60.6	52.6	50.9	45.5	41.0	34.5	31.0	27.5	26.7	26.4	54.5	19.1	26.4

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5773
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835928m E419487m	ELEVATION: 961m

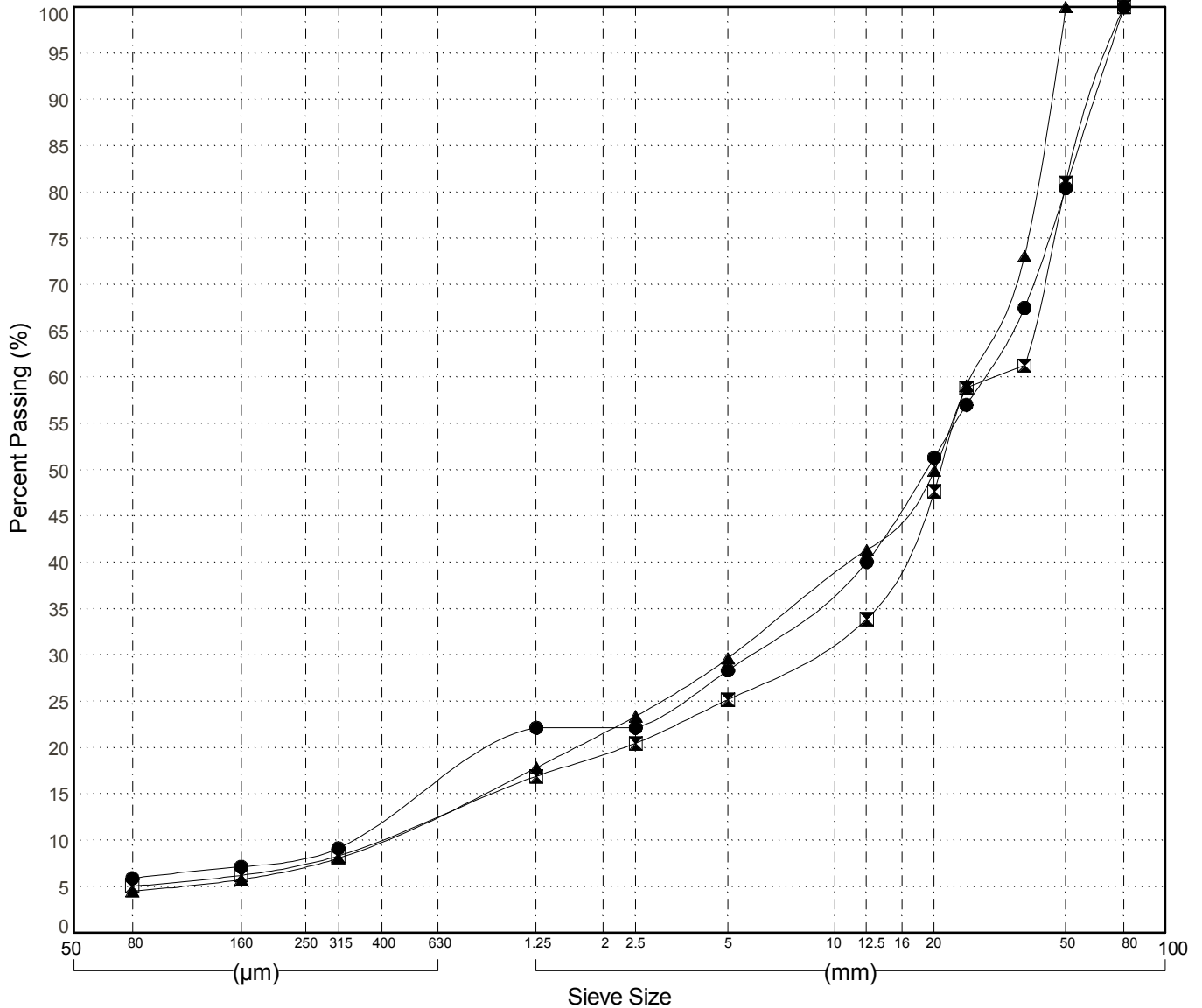
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 010	601	1.0 to 2.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	1.5	NP	NP	NP	3.1	81.4	0.345
☒ 011	602	2.0 to 3.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	2.8	NP	NP	NP	5.3	73.4	0.413
▲ 012	603	3.0 to 4.0	WELL-GRADED GRAVEL with SAND(GW)	2.8	NP	NP	NP	2.3	62.1	0.414

Field #	Lab #	% PASSING														% 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	Clay
●	010	601	100.0	100.0	80.4	57.0	51.3	40.1	37.4	28.4	22.2	22.2	15.7	9.1	7.1	5.9	71.6	22.5	5.9
☒	011	602	100.0	100.0	81.0	58.8	47.7	33.9	31.9	25.2	20.5	16.9	12.6	8.3	6.2	5.0	74.8	20.1	5.0
▲	012	603	100.0	100.0	100.0	59.1	49.9	41.3	38.6	29.7	23.4	17.8	13.0	8.1	5.8	4.5	70.3	25.2	4.5

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



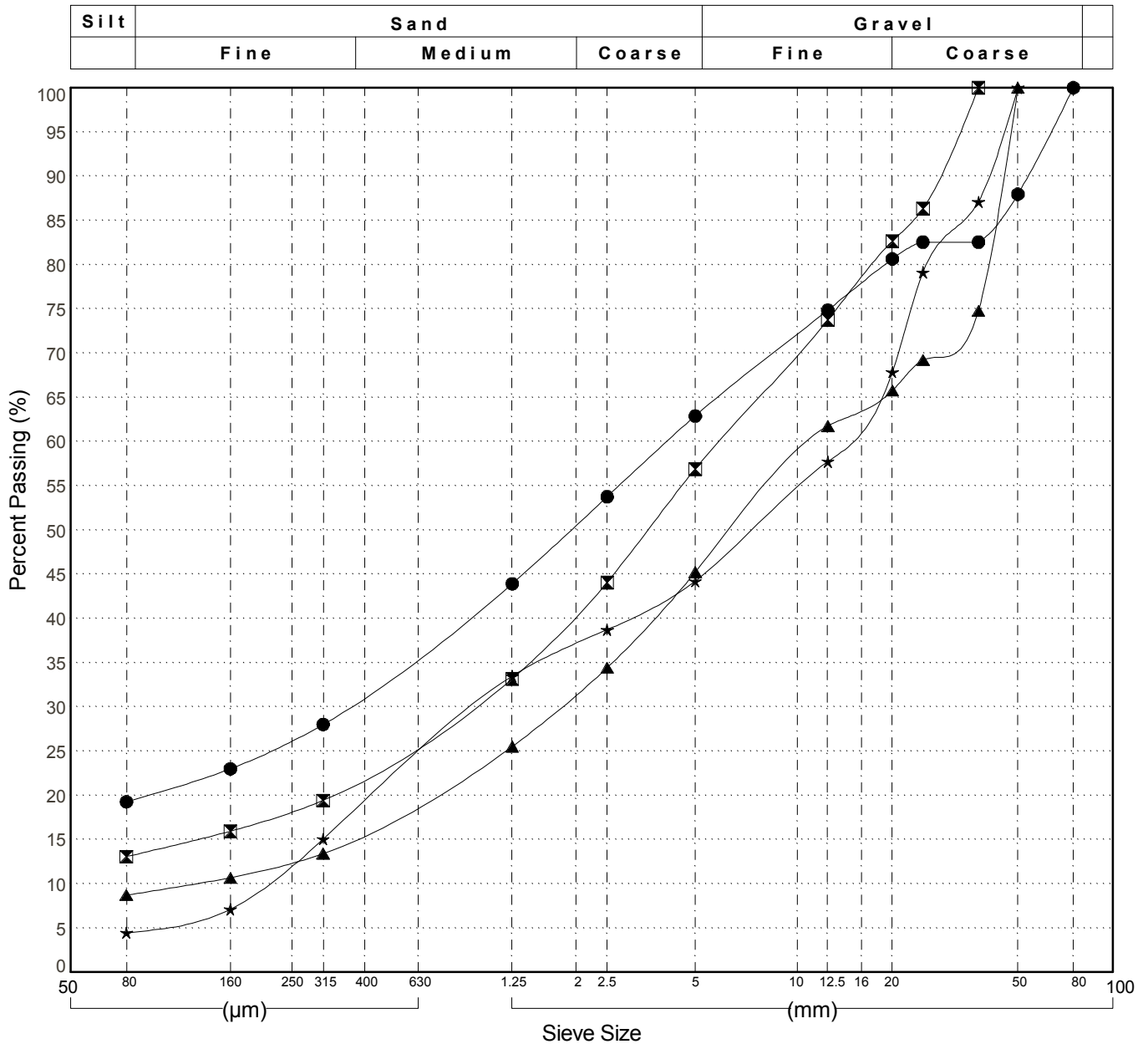
GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5774
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835924m E419413m	ELEVATION: 965m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 013	604	0.0 to 1.0	SILTY SAND with GRAVEL(SM)	5.4	NP	NP	NP			
☒ 014	605	1.0 to 2.0	SILTY SAND with GRAVEL(SM)	5.2	NP	NP	NP			
▲ 015	606	2.0 to 3.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	3.1	NP	NP	NP	2.3	92.0	0.123
★ 016	607	3.0 to 4.0	POORLY GRADED GRAVEL with SAND(GP)	3.7	NP	NP	NP	0.3	67.8	0.205

Field #	Lab #	% PASSING	Gravel											% 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	Silt	Clay
●	013	604	100.0	100.0	88.0	82.5	80.6	74.9	72.1	62.9	53.8	43.9	36.0	28.0	23.0	19.3	37.1	43.6	19.3	
☒	014	605	100.0	100.0	100.0	86.3	82.6	73.7	69.9	56.9	44.1	33.2	26.3	19.4	15.9	13.1	43.1	43.8	13.1	
▲	015	606	100.0	100.0	100.0	69.2	65.8	61.7	57.9	45.2	34.4	25.5	19.5	13.4	10.7	8.7	54.8	36.5	8.7	
★	016	607	100.0	100.0	100.0	79.1	67.8	57.7	54.6	44.2	38.7	33.5	24.3	15.0	7.1	4.5	55.8	39.7	4.5	

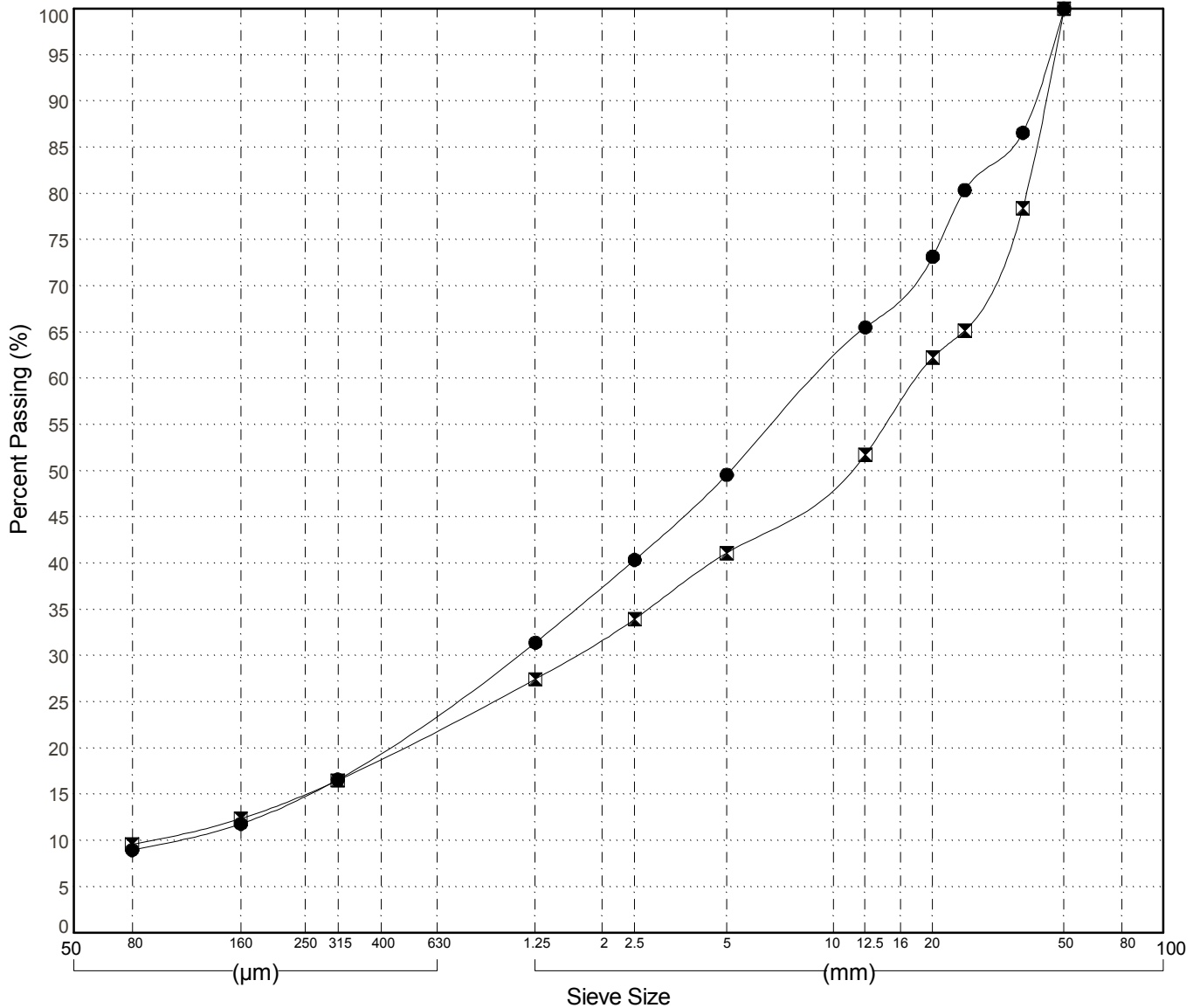


GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5775
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835853m E419415m	ELEVATION: 967m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10										
● 017	608	0.5 to 1.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	6.4	NP	NP	NP	1.4	90.8	0.098										
☒ 018	609	1.0 to 2.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	8.9	NP	NP	NP	1.8	214.3	0.084										
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	
● 017	608	100.0	100.0	100.0	80.4	73.2	65.5	61.8	49.6	40.4	31.4	24.0	16.6	11.8	9.0	50.4	40.6	9.0		
☒ 018	609	100.0	100.0	100.0	65.2	62.3	51.7	49.3	41.1	34.0	27.5	22.0	16.5	12.3	9.6	58.9	31.5	9.6		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

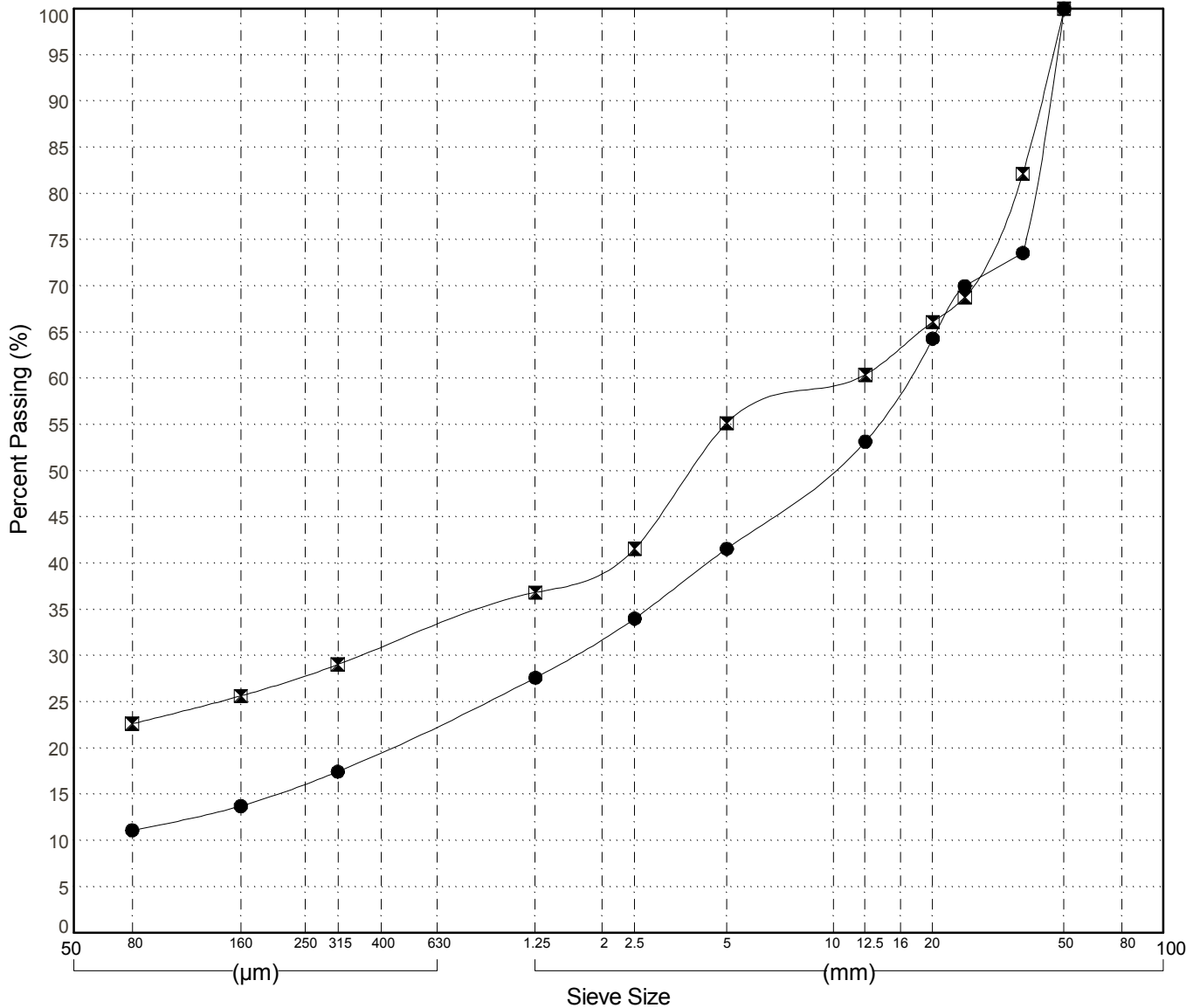


GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5776
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835807m E419355m	ELEVATION: 974m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10										
● 019	610	0.3 to 1.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	5.7	NP	NP	NP	2.9	307.4											
☒ 020	611	1.8 to 2.0	SILTY GRAVEL with SAND(GM)	2.9	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				
● 019	610	100.0	100.0	100.0	70.0	64.3	53.2	50.5	41.6	34.0	27.6	22.6	17.5	13.7	11.1	Gravel	Sand	Silt	Clay	
☒ 020	611	100.0	100.0	100.0	68.8	66.1	60.4	59.2	55.2	41.6	36.8	33.0	29.0	25.6	22.6	44.8	32.5		11.1	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5777
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835791m E419172m	ELEVATION: 1006m

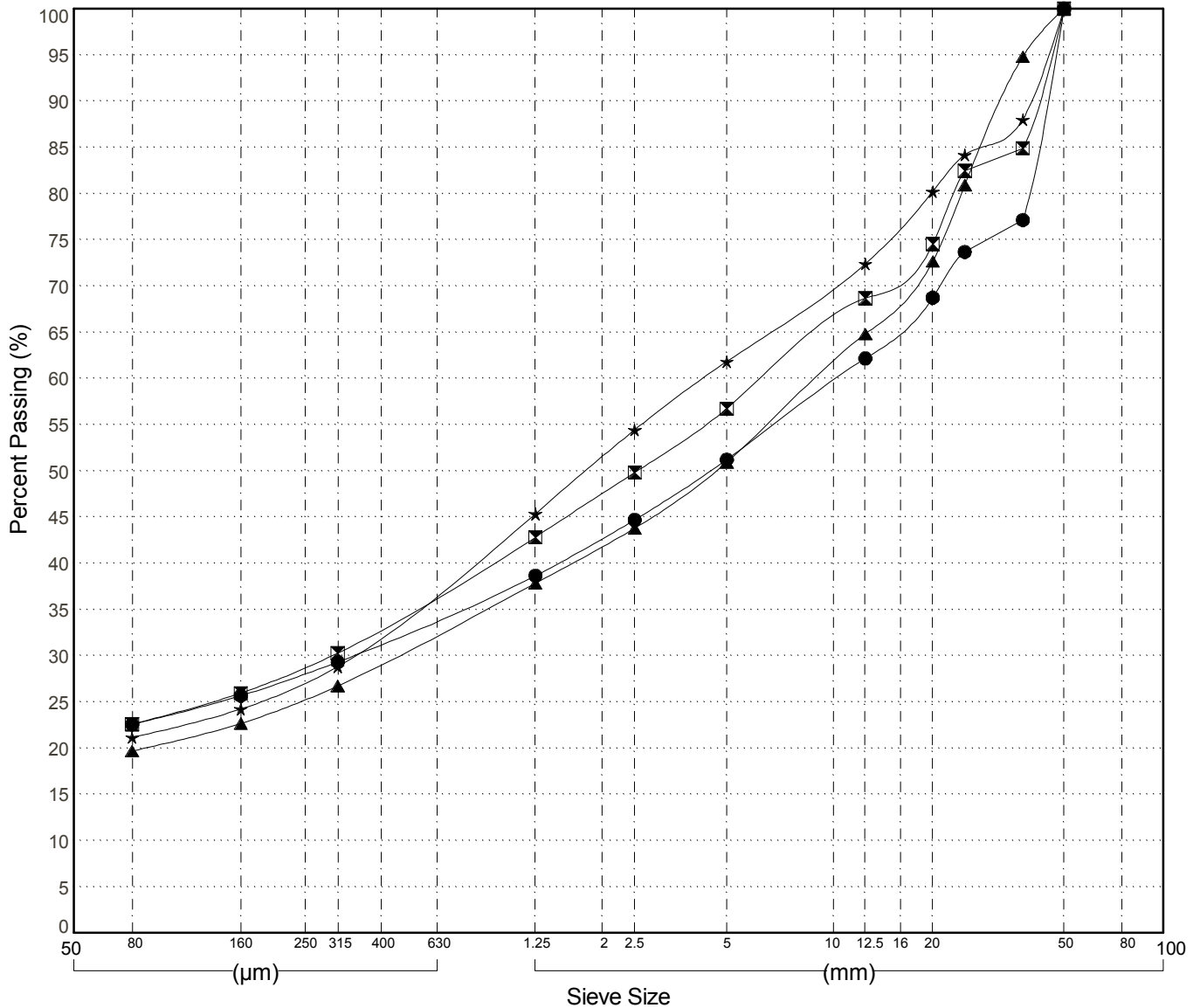
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 021	612	0.2 to 1.0	SILTY GRAVEL with SAND(GM)	4.8	NP	NP	NP			
▣ 022	613	1.0 to 2.0	SILTY GRAVEL with SAND(GM)	4.6	NP	NP	NP			
▲ 023	614	2.0 to 3.0	SILTY GRAVEL with SAND(GM)	3.2	NP	NP	NP			
★ 024	615	3.0 to 4.0	SILTY SAND with GRAVEL(SM)	5.0	NP	NP	NP			

Field #	Lab #	% PASSING	Gravel													% 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	Clay
●	021	612	100.0	100.0	100.0	73.7	68.7	62.2	59.6	51.2	44.7	38.7	34.0	29.3	25.7	22.6	48.8	28.6	22.6
▣	022	613	100.0	100.0	100.0	82.5	74.5	68.7	65.9	56.7	49.8	42.8	36.6	30.3	26.0	22.6	43.3	34.1	22.6
▲	023	614	100.0	100.0	100.0	80.9	72.7	64.8	61.6	50.9	43.8	37.8	32.3	26.7	22.7	19.7	49.1	31.2	19.7
★	024	615	100.0	100.0	100.0	84.2	80.2	72.4	69.9	61.8	54.4	45.3	37.1	28.8	24.2	21.2	38.2	40.7	21.2

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5778
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835758m E419160m	ELEVATION: 1007m

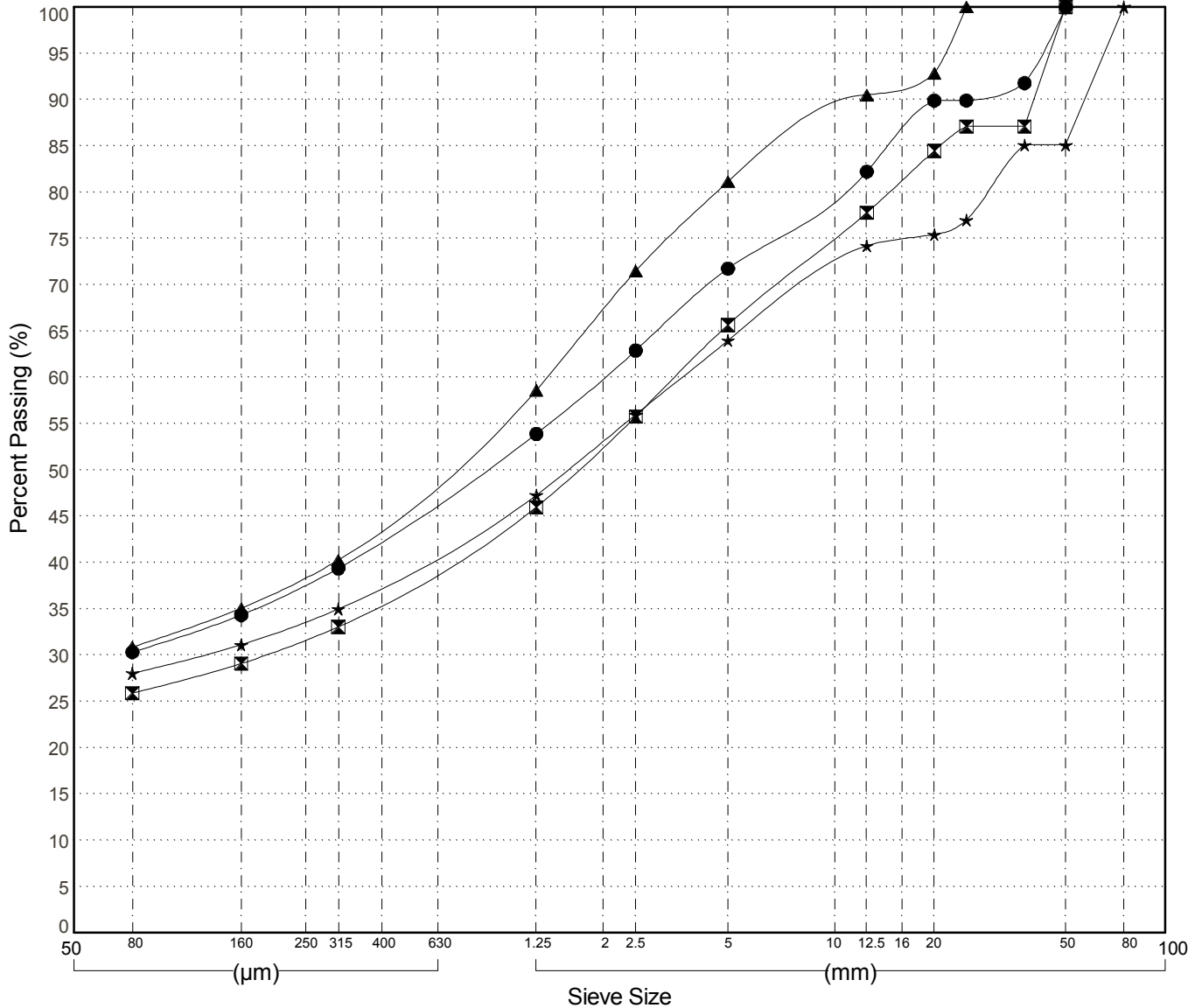
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 025	616	0.3 to 1.0	SILTY SAND with GRAVEL(SM)	7.2	NP	NP	NP			
☒ 026	617	1.0 to 2.0	SILTY SAND with GRAVEL(SM)	6.0	NP	NP	NP			
▲ 027	618	2.0 to 3.0	SILTY SAND with GRAVEL(SM)	7.4	NP	NP	NP			
★ 028	619	3.0 to 3.5	SILTY GRAVEL with SAND(GM)	5.7	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	Clay
●	025	616	100.0	100.0	100.0	89.9	89.9	82.2	79.8	71.7	62.9	53.9	46.7	39.4	34.3	30.3	28.3	41.4	30.3
☒	026	617	100.0	100.0	100.0	87.1	84.5	77.8	75.0	65.7	55.8	46.0	39.5	33.1	29.1	25.9	34.3	39.8	25.9
▲	027	618	100.0	100.0	100.0	100.0	92.8	90.5	88.3	81.1	71.5	58.6	49.5	40.3	35.1	30.9	18.9	50.2	30.9
★	028	619	100.0	100.0	85.1	77.0	75.4	74.2	71.8	64.0	56.0	47.3	41.2	35.0	31.1	28.0	36.0	35.9	28.0

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5779
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835784m E419219m	ELEVATION: 997m

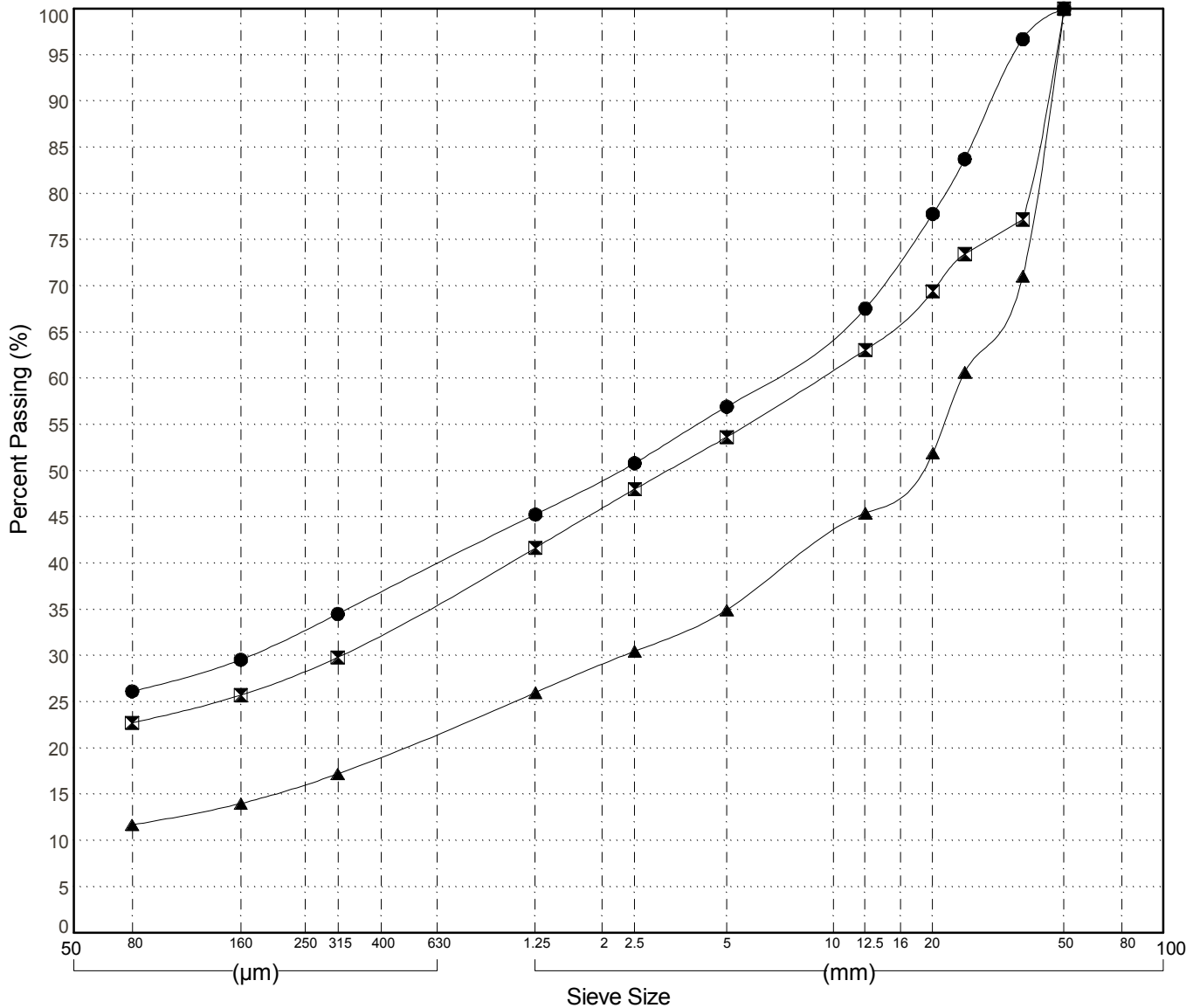
Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 029	620	0.2 to 1.0	SILTY GRAVEL with SAND(GM)	5.9	NP	NP	NP			
☒ 030	621	1.0 to 2.0	SILTY GRAVEL with SAND(GM)	5.4	NP	NP	NP			
▲ 031	622	2.0 to 3.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	3.3	NP	NP	NP	5.1	571.7	

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	Clay
●	029	620	100.0	100.0	100.0	83.7	77.8	67.6	65.1	56.9	50.8	45.3	39.9	34.5	29.6	26.1	43.1	30.8	26.1
☒	030	621	100.0	100.0	100.0	73.4	69.4	63.1	60.9	53.6	48.0	41.7	35.8	29.8	25.7	22.7	46.4	30.9	22.7
▲	031	622	100.0	100.0	100.0	60.7	51.9	45.4	43.0	34.9	30.5	26.0	21.6	17.2	14.0	11.7	65.1	23.2	11.7

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration	SOURCE/TP#: 898-5780
Graceland	km 230.7 LHS	PROJECT NO: 552-202104
CAT 320CL	Coordinates:Z09V N6835809m E419272m	ELEVATION: 985m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 032	623	0.1 to 1.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	3.1	NP	NP	NP	1.2	201.3	0.108
☒ 033	624	1.0 to 2.0	WELL-GRADED GRAVEL with SAND(GW)	2.5	NP	NP	NP	1.2	46.2	0.366
▲ 034	625	2.0 to 3.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	4.8	NP	NP	NP	1.7	117.1	0.107
★ 035	626	3.0 to 4.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	3.6	NP	NP	NP	3.1	142.8	

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	Clay
●	032	623	100.0	100.0	84.7	63.8	57.6	54.6	51.8	42.4	34.1	26.6	21.0	15.3	11.4	8.7	57.6	33.7	8.7
☒	033	624	100.0	100.0	100.0	65.9	64.5	51.8	48.5	37.4	28.7	20.8	14.8	8.7	6.0	4.5	62.6	32.9	4.5
▲	034	625	100.0	100.0	100.0	79.4	74.1	60.0	56.5	44.9	35.7	27.8	21.5	15.1	11.4	8.7	55.1	36.2	8.7
★	035	626	100.0	100.0	100.0	83.0	73.0	63.4	58.9	43.9	35.1	27.6	21.6	15.5	12.3	10.0	56.1	33.8	10.0

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

