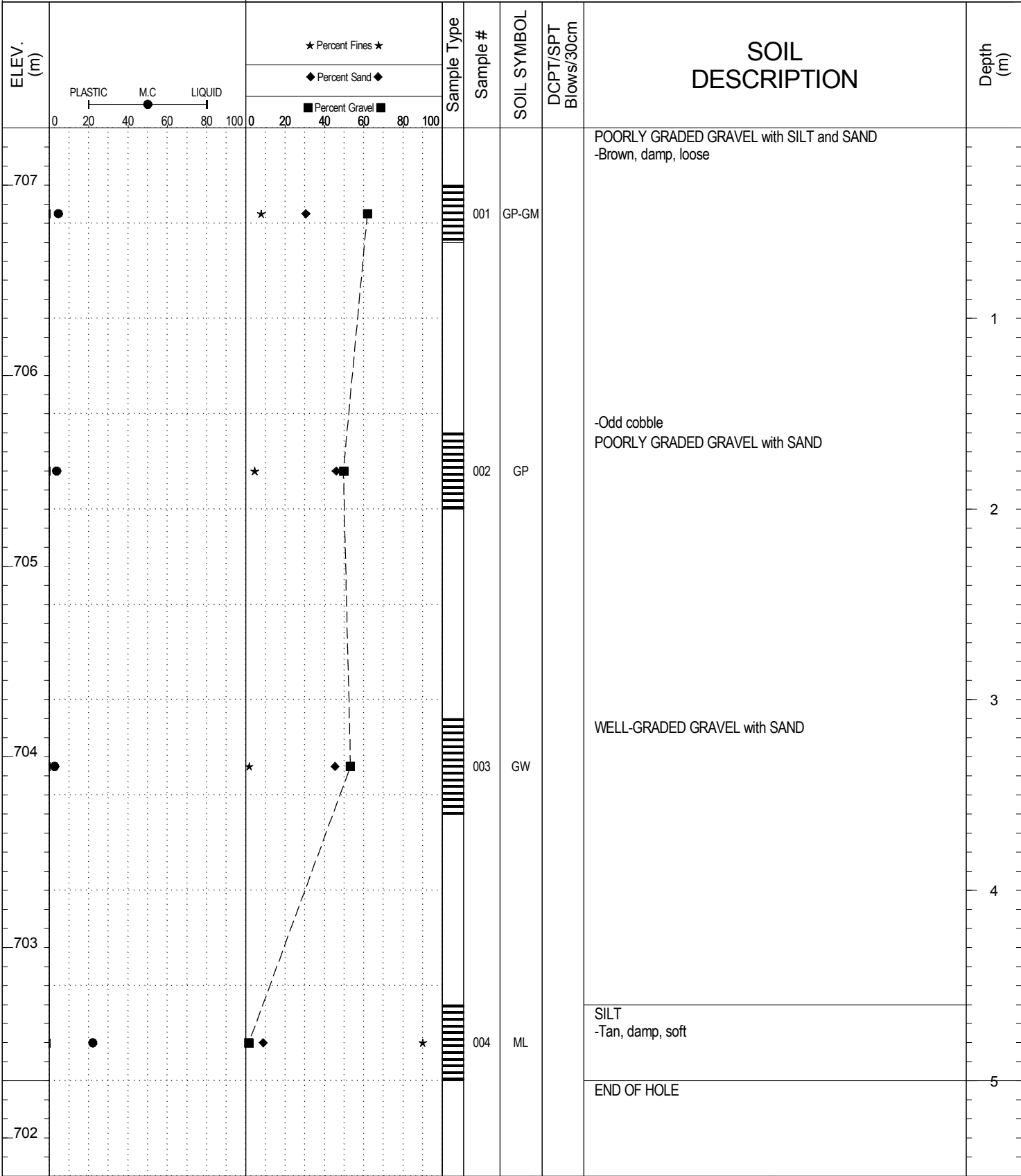


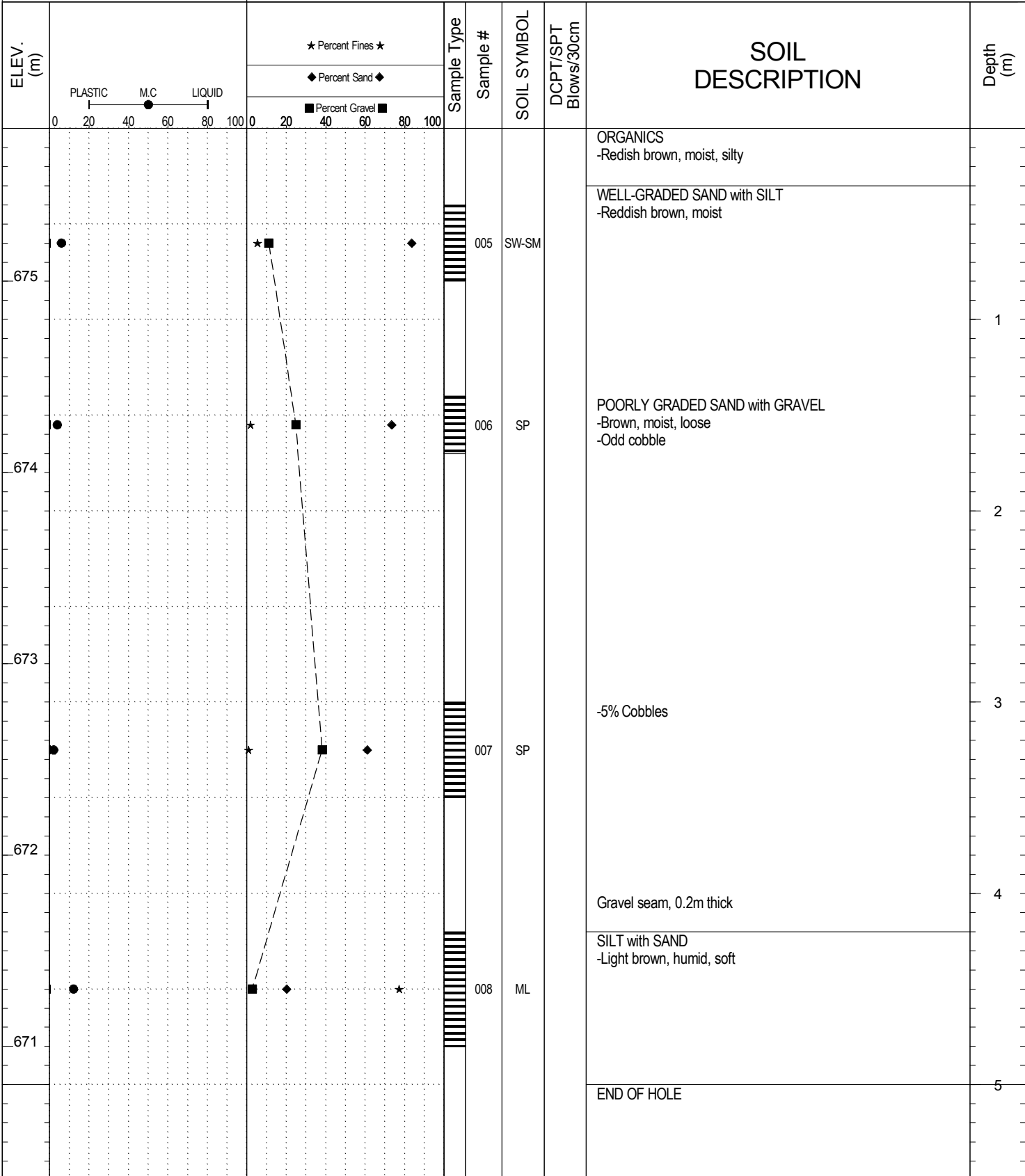
SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4592

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6723720.8m E489977.7m ELEVATION: 707.3m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



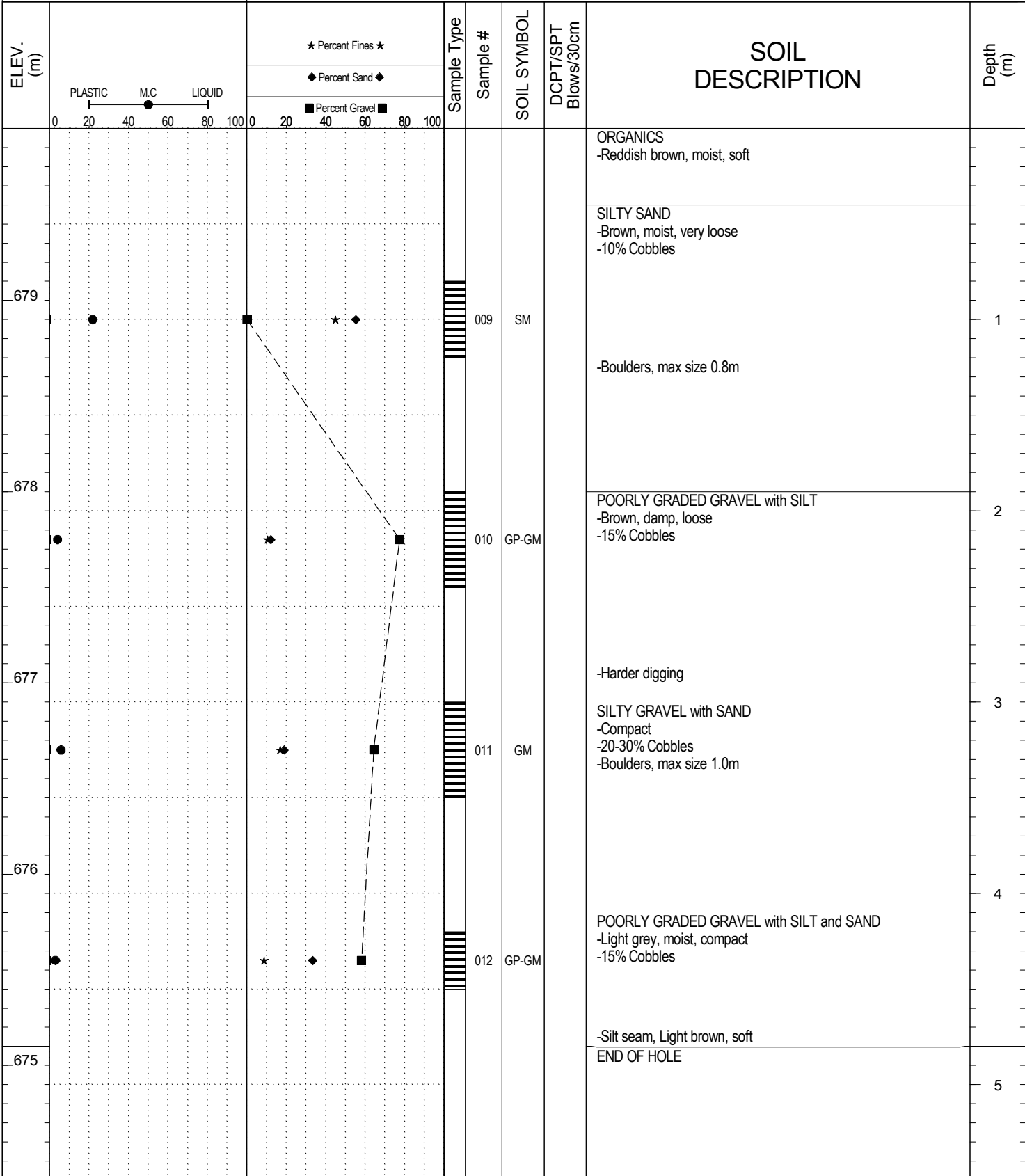


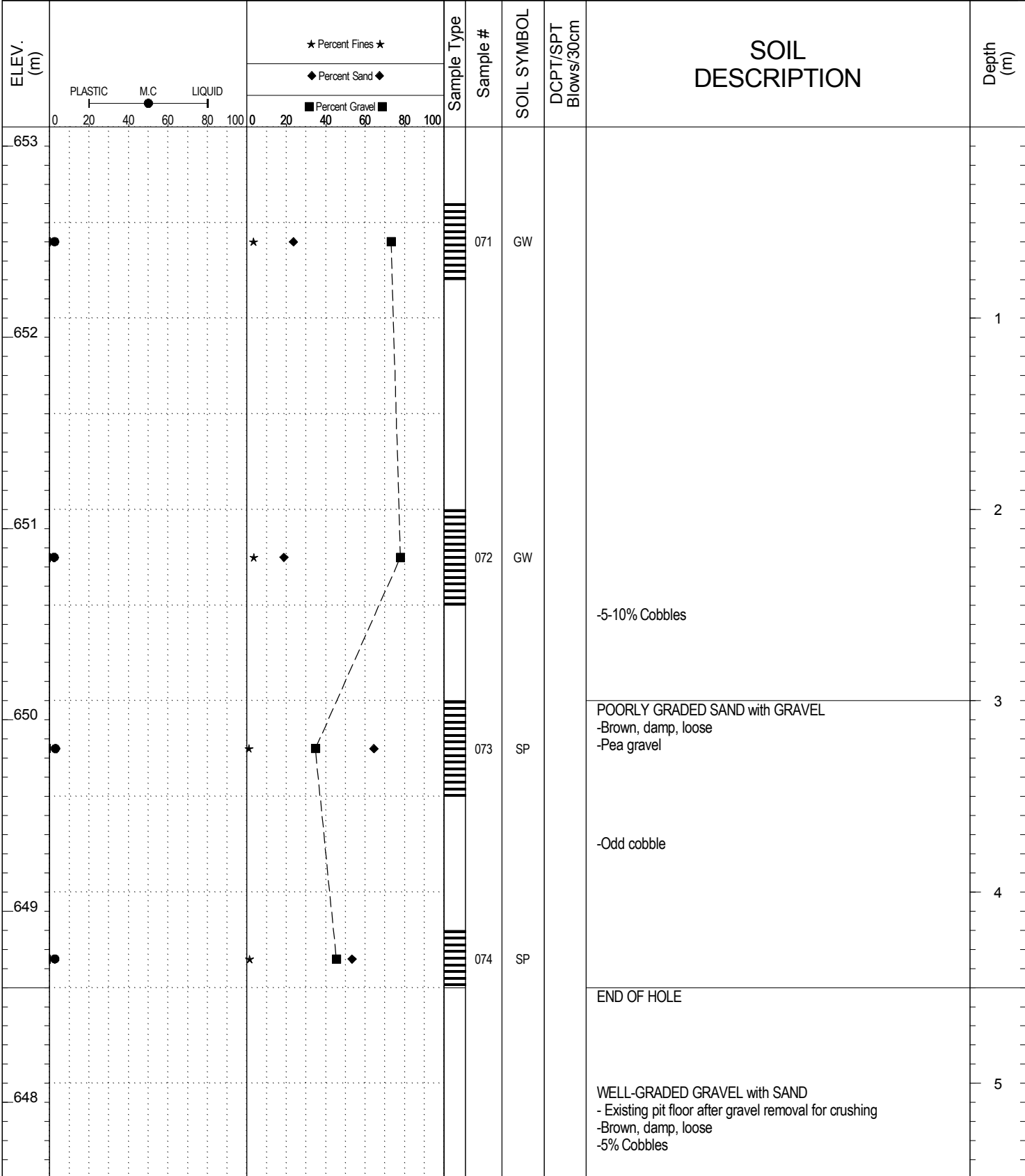
SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4594

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724126.9m E490217.7m ELEVATION: 679.9m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



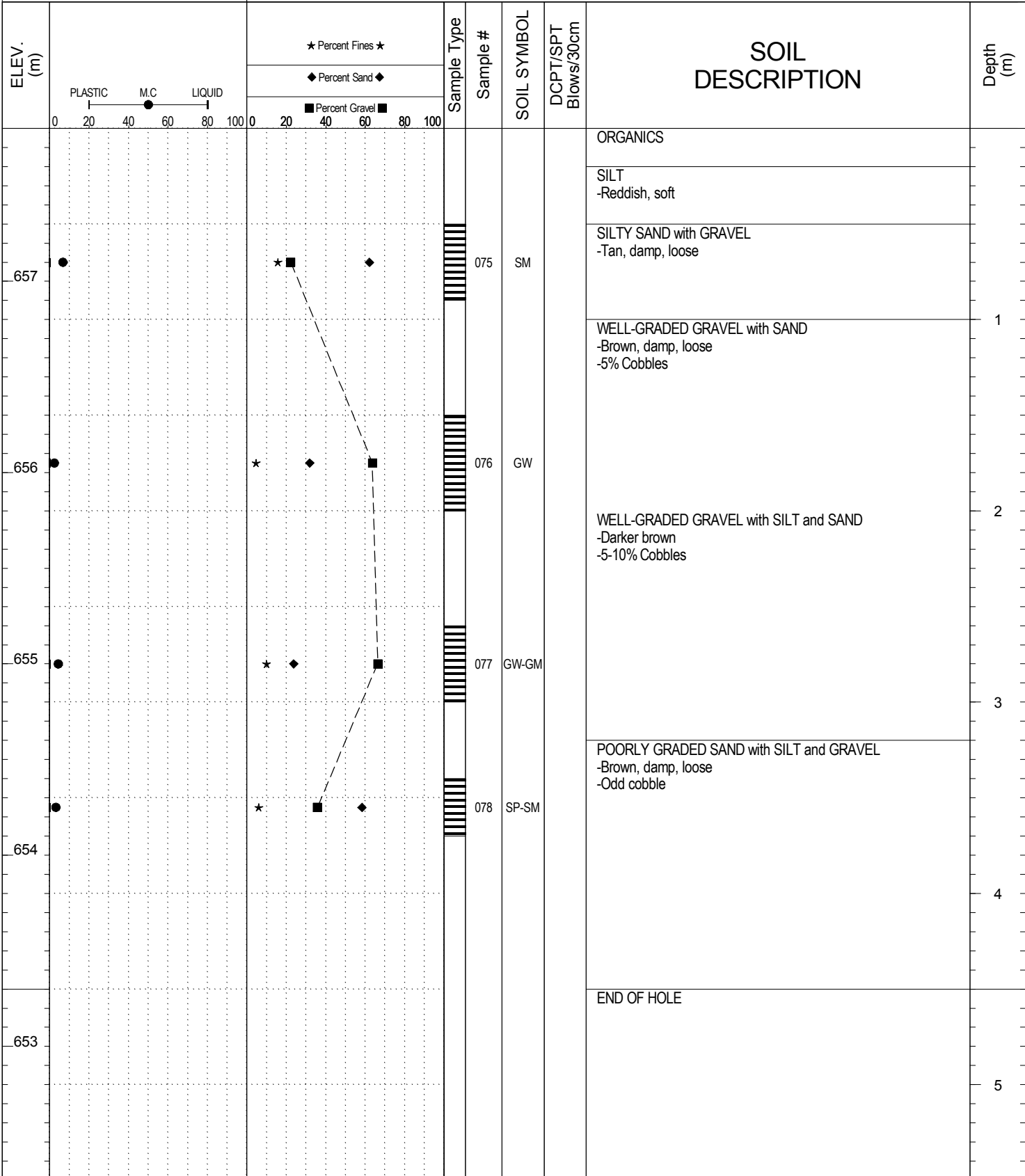


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4686

J.Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724024.7m E490135.2m ELEVATION: 657.8m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE

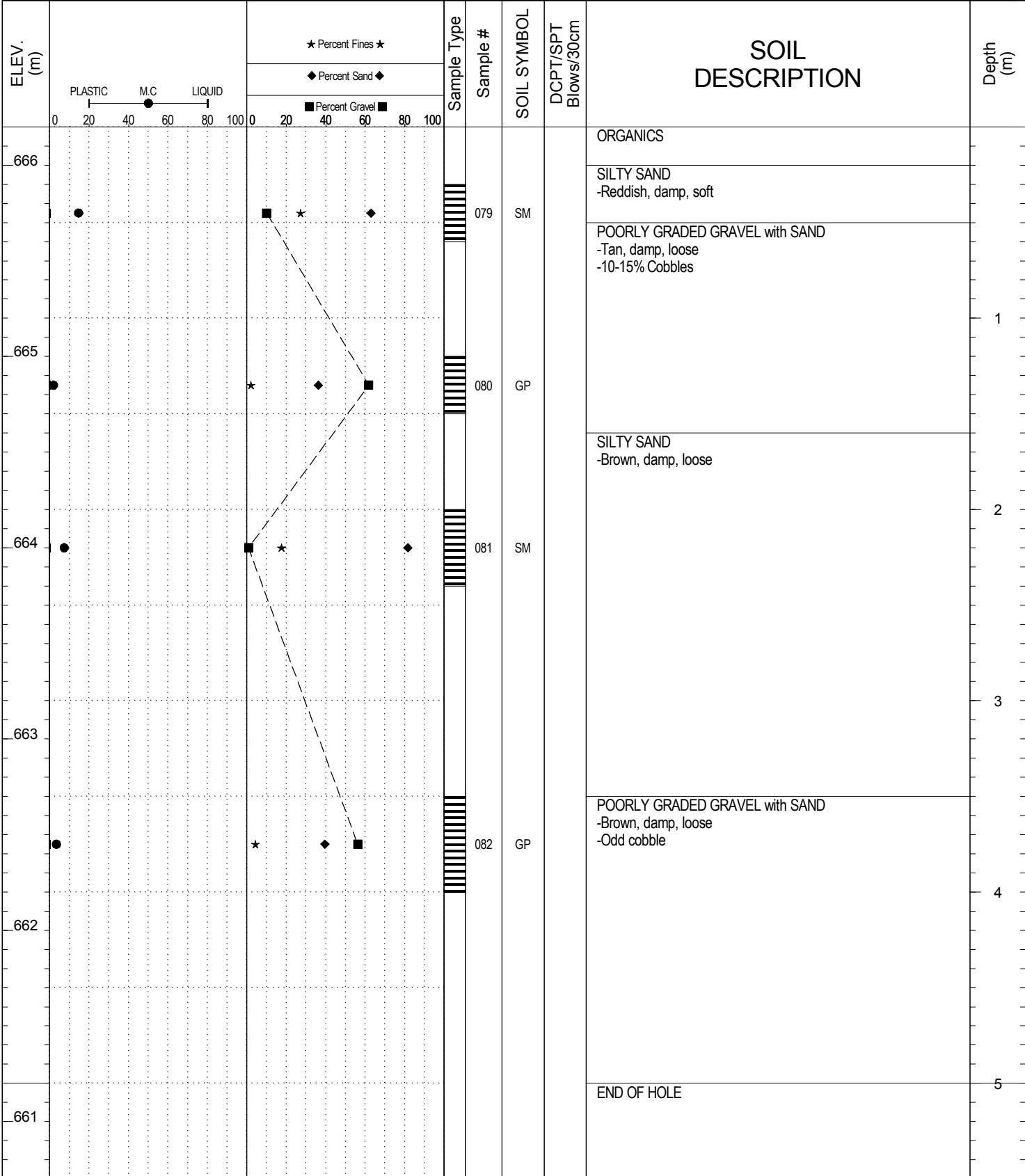


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4687

J.Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724127.3m E490213.7m ELEVATION: 666.2m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE

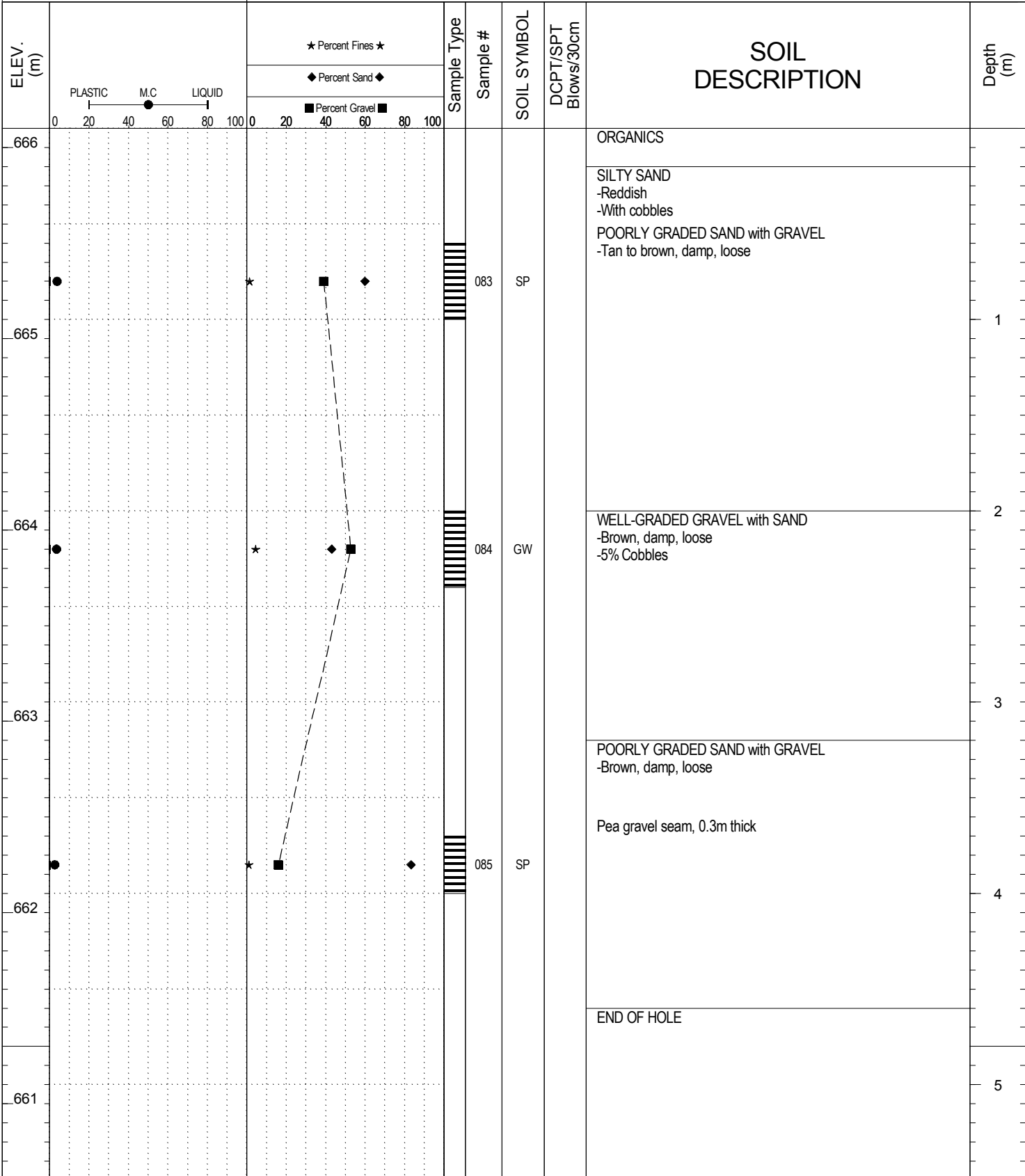


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4688

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724220.5m E490292.6m ELEVATION: 666.1m

SAMPLE TYPE ■ RETURN ↓ DCPT ■ AUGER ≡ BULK ⊗ SPT ■ CORE

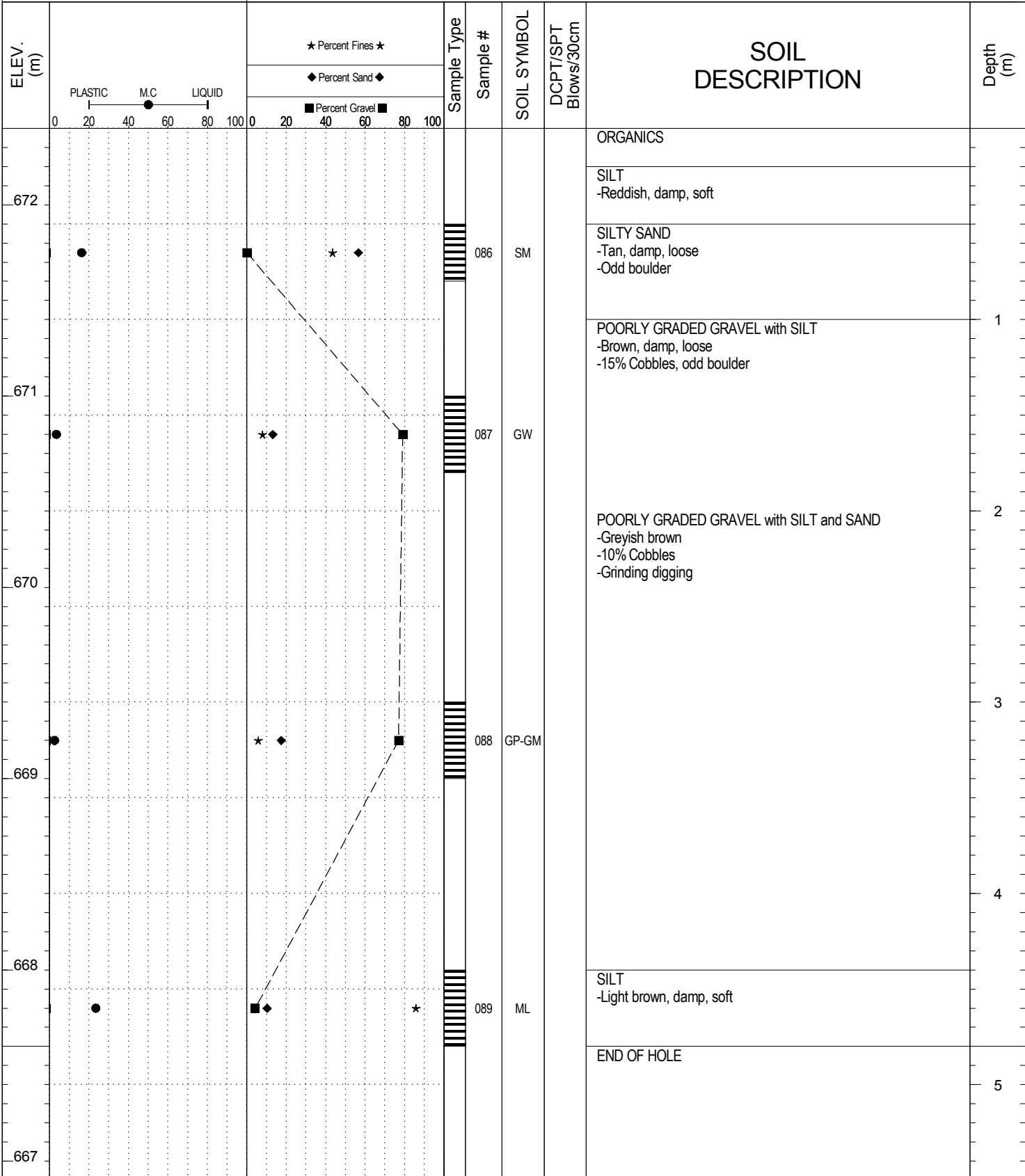


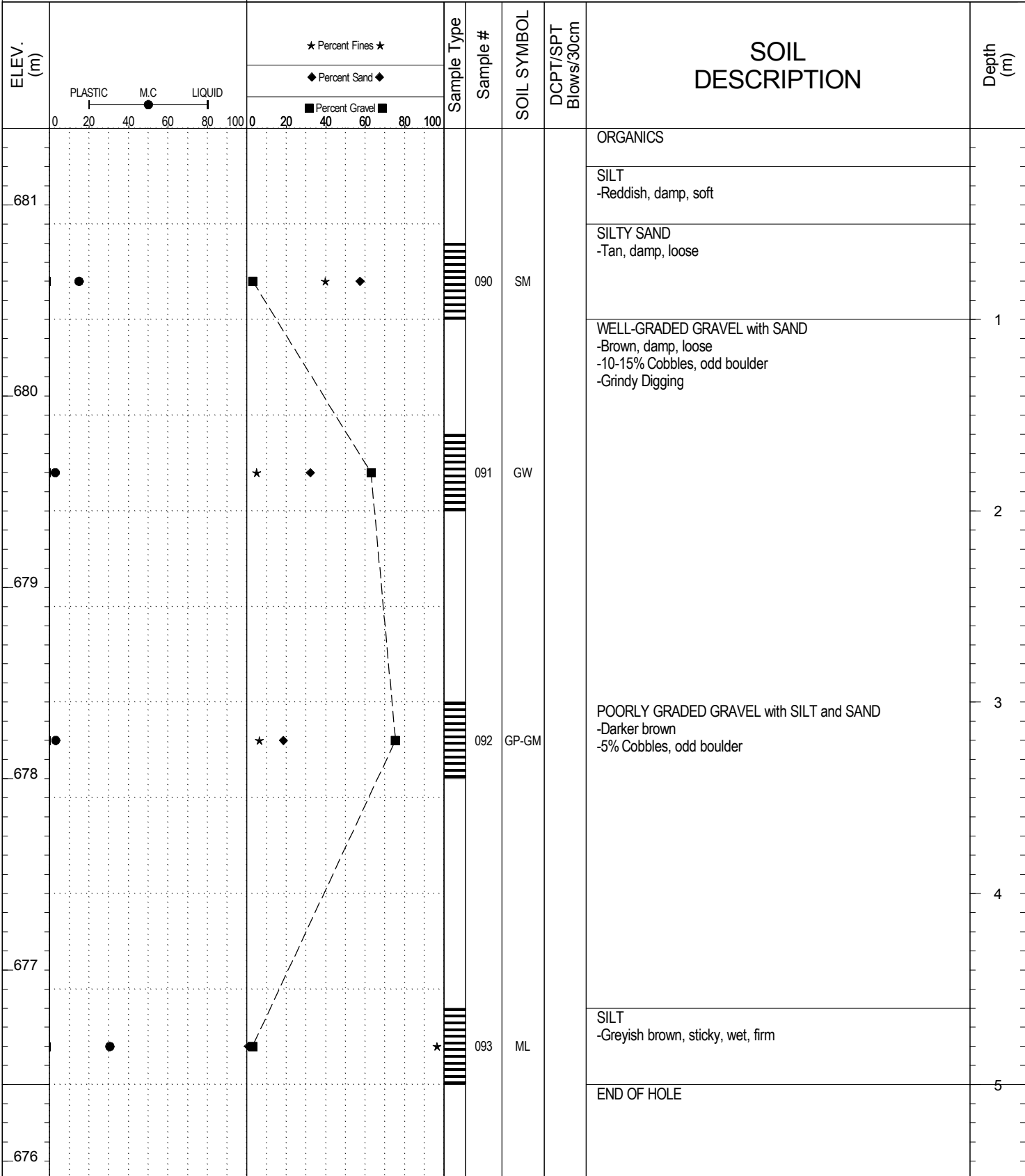
SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4689

J.Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724319.5m E490332m ELEVATION: 672.4m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



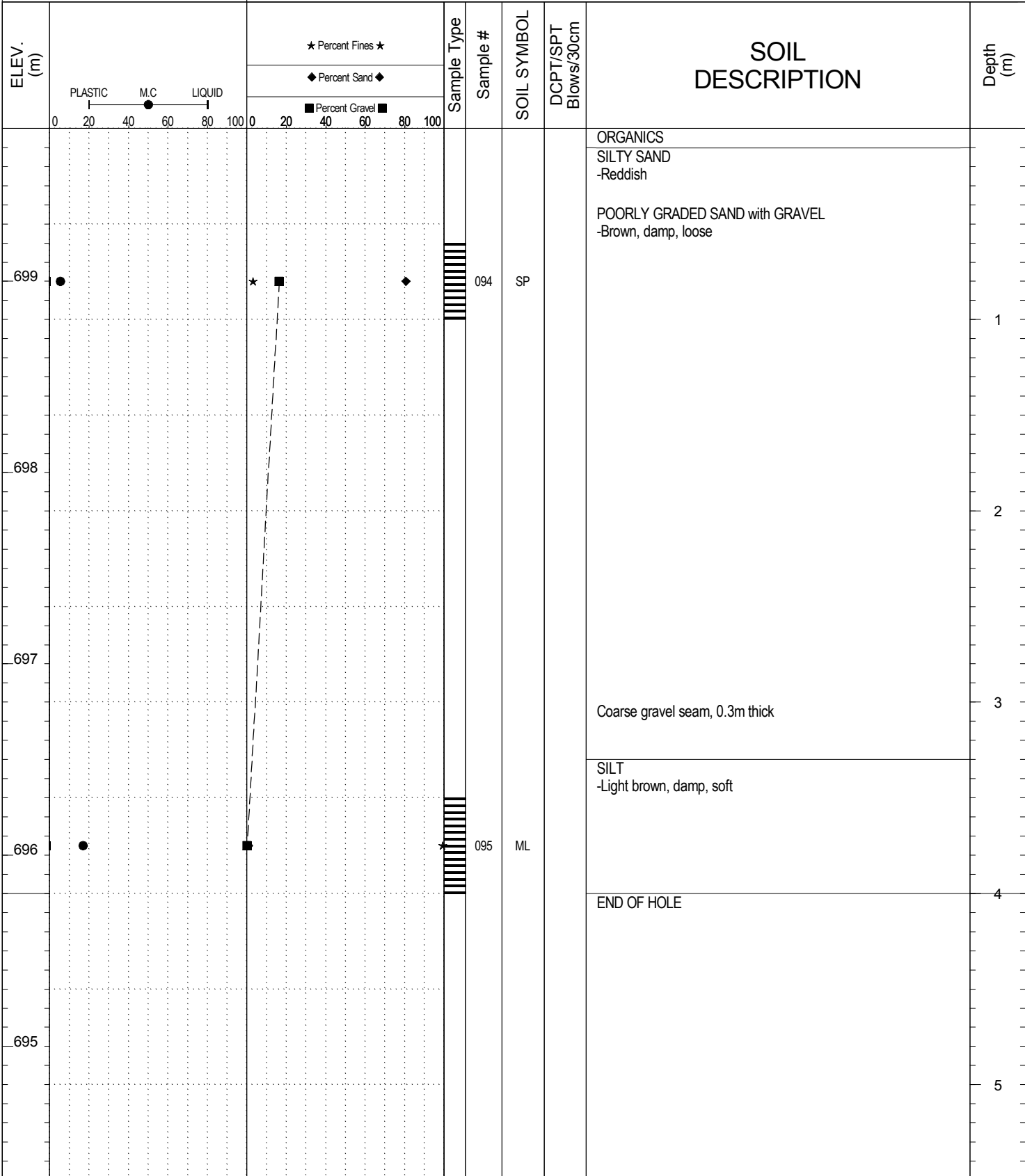


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4691

J.Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724392.2m E490178.1m ELEVATION: 699.8m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE

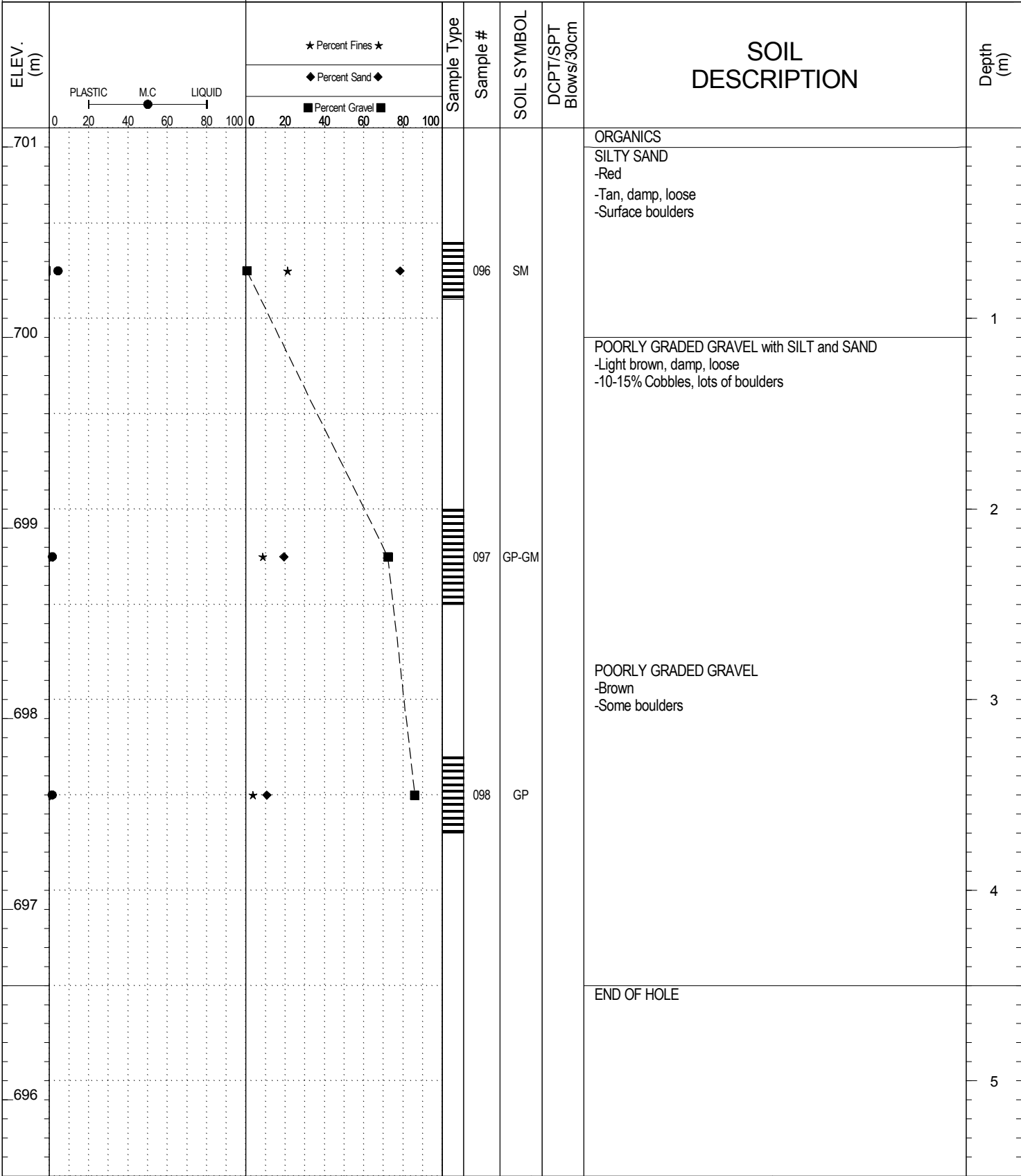


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4692

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724085m E490120.5m ELEVATION: 701.1m

SAMPLE TYPE ■ RETURN ↓ DCPT ■ AUGER ≡ BULK ⊗ SPT ■ CORE

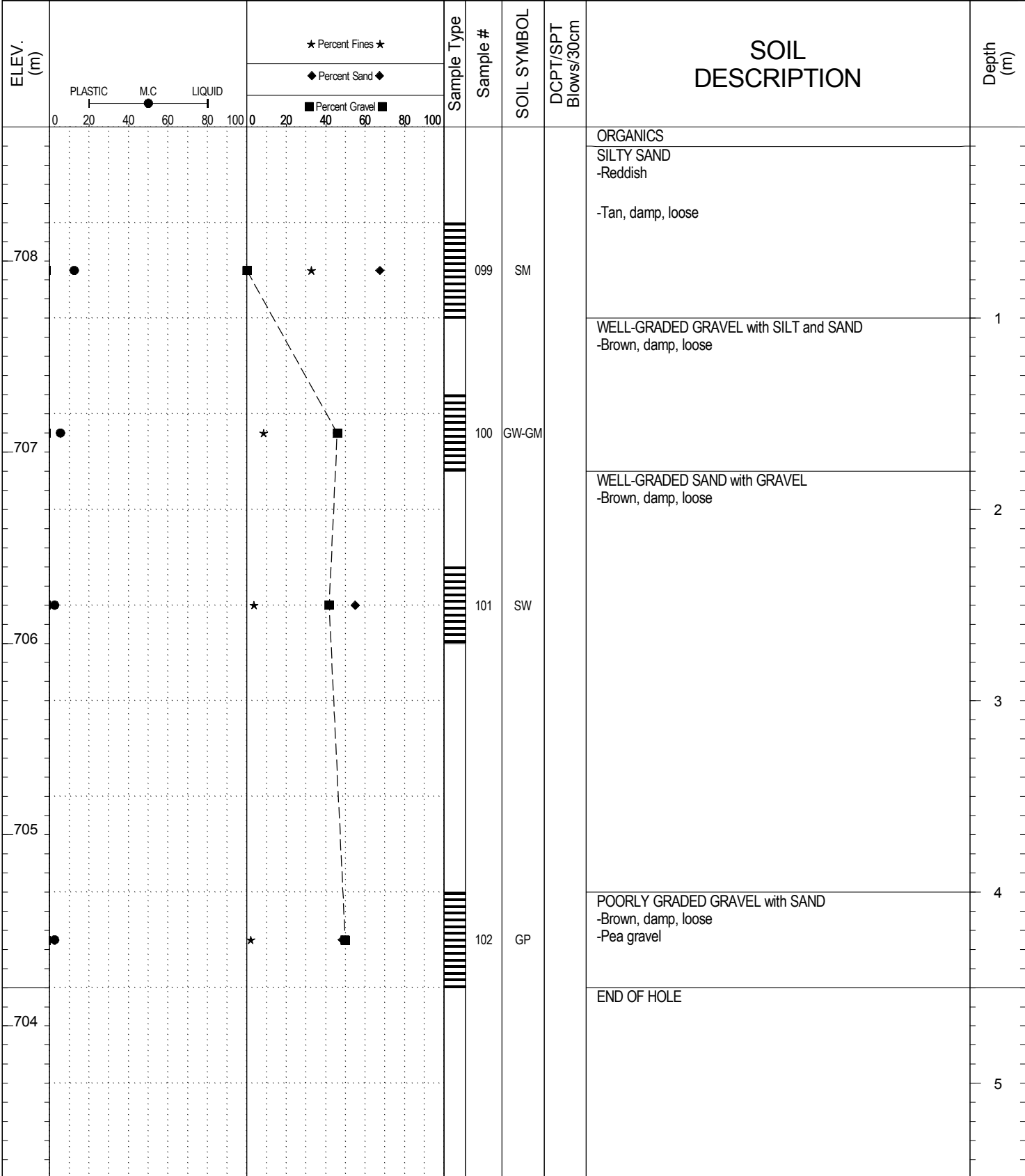


SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4693

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724164m E490141.5m ELEVATION: 708.7m

SAMPLE TYPE ■ RETURN ↓ DCPT ■ AUGER ≡ BULK ⊗ SPT ▬ CORE



**Highways and Public Works
Transportation Engineering Branch**

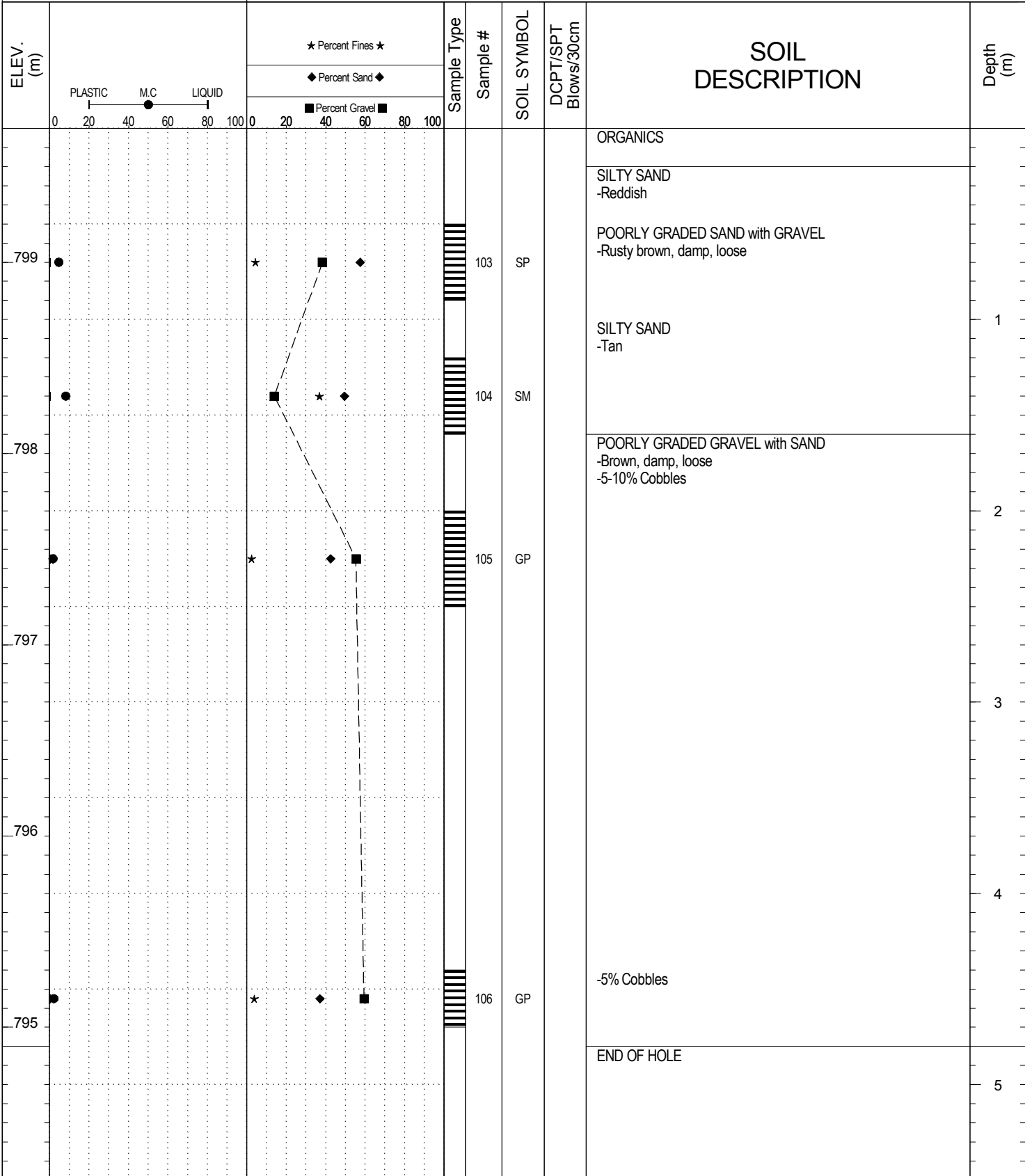
LOGGED BY: B. Tyhy	Termination Depth: 4.5m
COMPILED BY: R. Stilwell	Complete: 10/28/2013 5:45:00 PM
REVIEWED BY: M. Idrees	Pit #: 105 A-19 Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4694

J. Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724254.8m E490206m ELEVATION: 799.7m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE

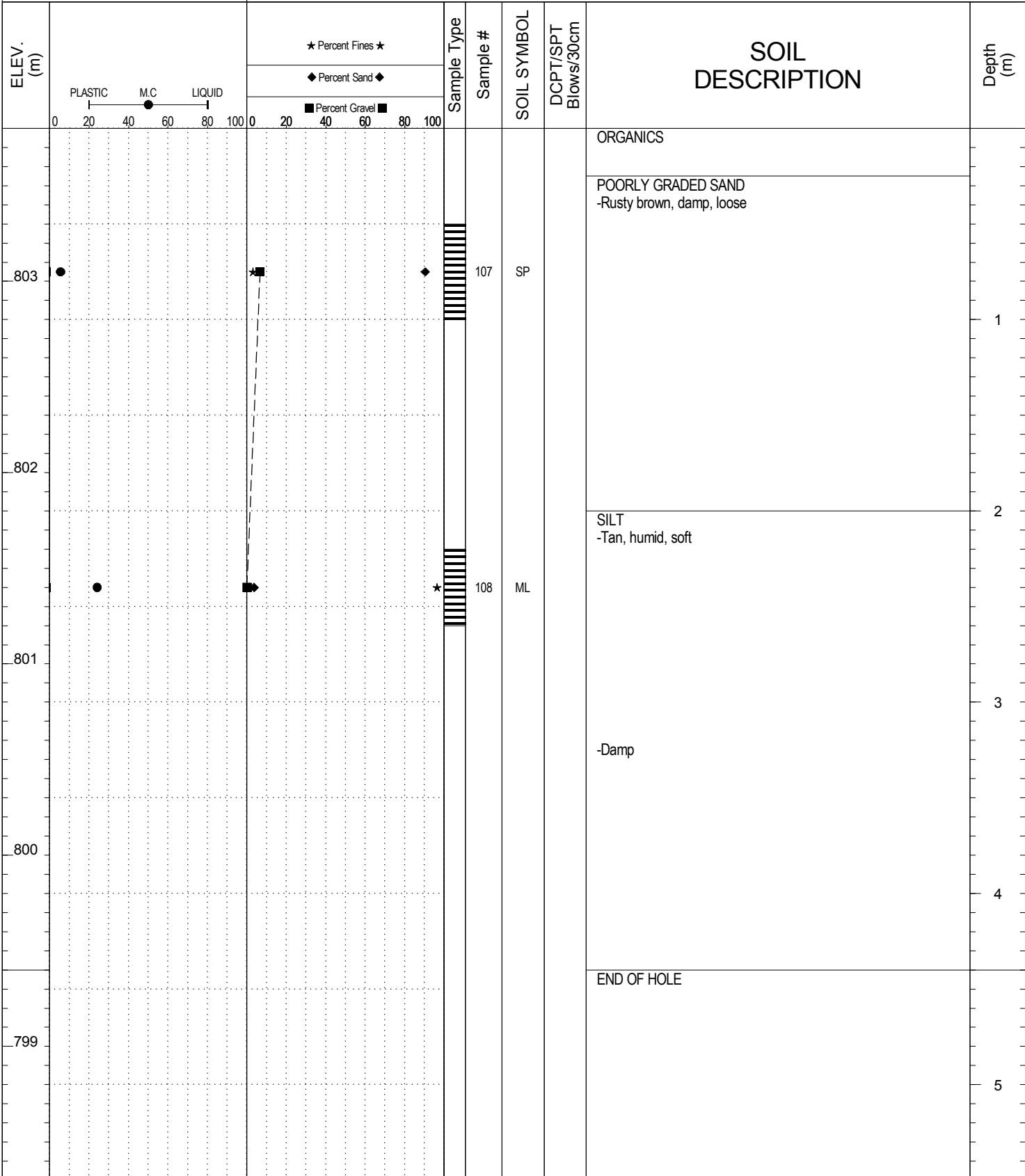


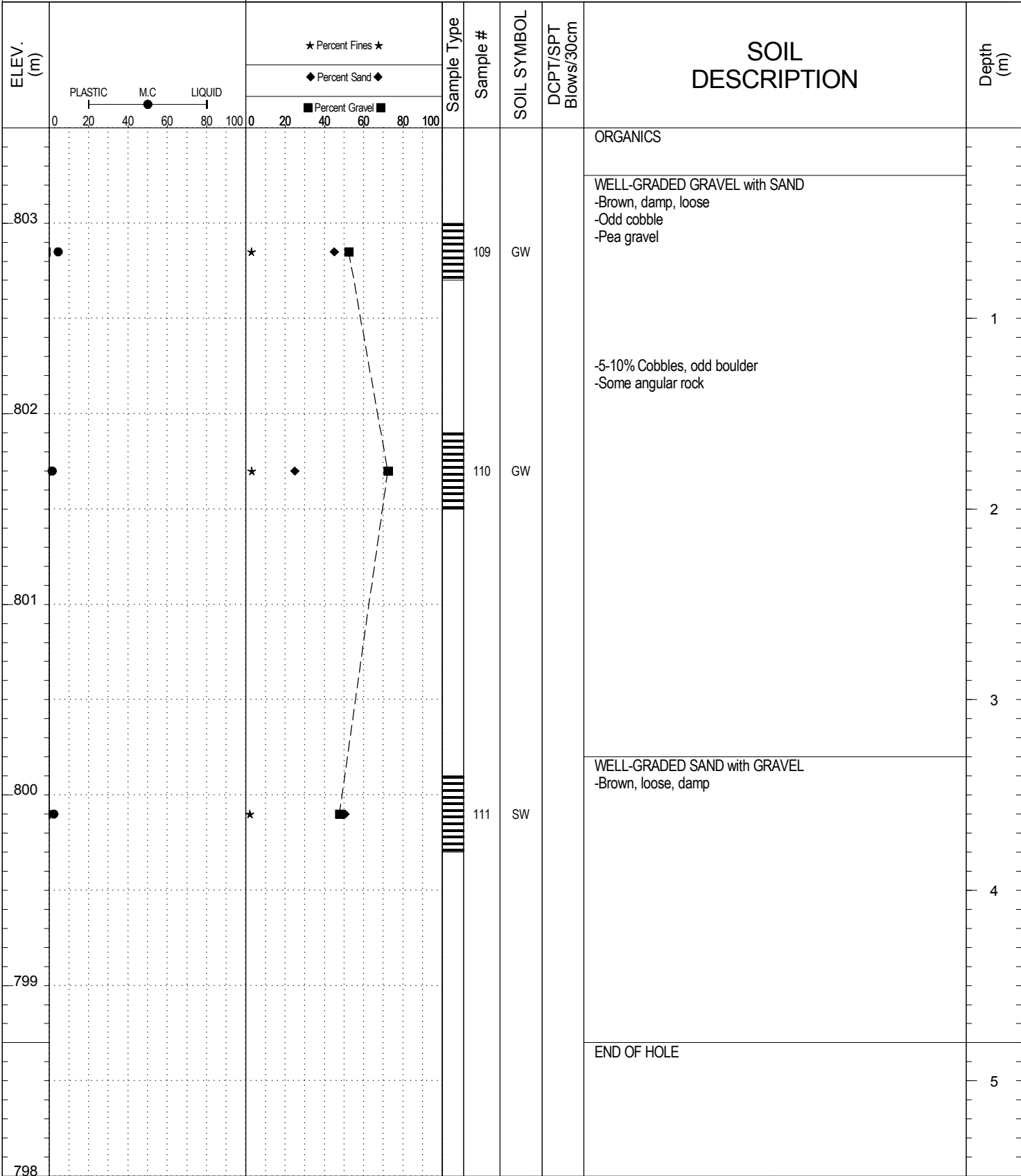
SUBSURFACE EXPLORATION AND TEST REPORT Campbell Highway SOURCE/TP#: 825-4695

J.Magun Campbell Highway Gravel Search km 70-90, km 78.1 RH PROJECT NO: 552-202104-2035-0661-5

Hitachi 200 LC Coordinates: Z9 N6724267.5m E490114m ELEVATION: 803.8m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE





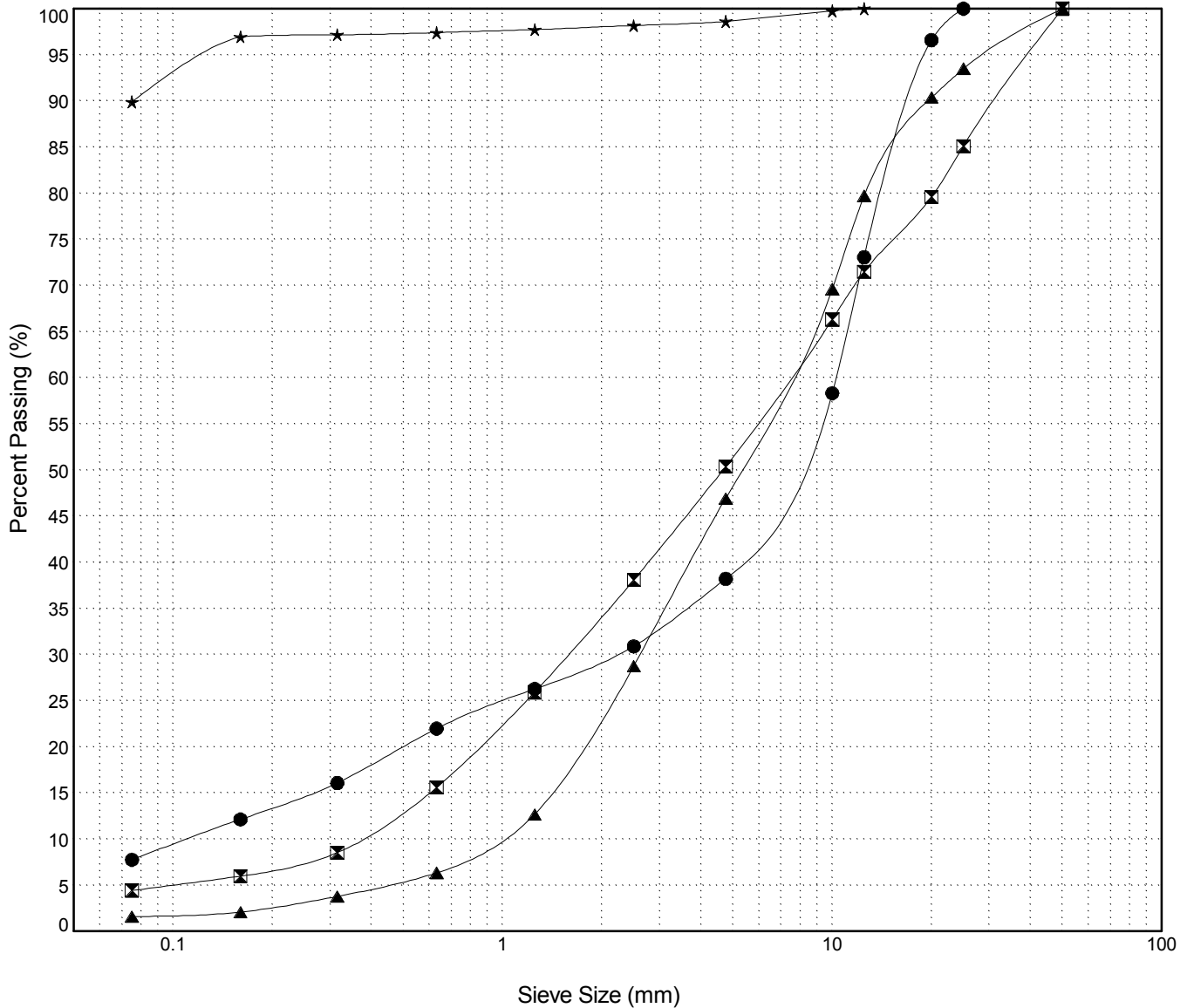
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4592
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6723720.8m E489977.7m	ELEVATION: 707.3m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 001	1063	0.3 to 0.6	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	4.5	NP	NP	NP	4.2	92.8
☒ 002	1064	1.6 to 2.0	POORLY GRADED GRAVEL with SAND(GP)	3.6	NP	NP	NP	0.9	20.5
▲ 003	1065	3.1 to 3.6	WELL-GRADED GRAVEL with SAND(GW)	2.6	NP	NP	NP	1.0	7.8
★ 004	1066	4.6 to 5.0	SILT(ML)	22.0	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	Silt
● 001	1063	100.0	100.0	100.0	100.0	96.6	73.1	58.3	38.2	30.9	26.3	22.0	16.1	12.1	7.8	61.8	30.5	7.8	
☒ 002	1064	100.0	100.0	100.0	85.1	79.6	71.5	66.3	50.4	38.1	25.9	15.6	8.5	6.0	4.4	49.6	45.9	4.4	
▲ 003	1065	100.0	100.0	100.0	93.5	90.4	79.7	69.6	46.9	28.7	12.7	6.3	3.8	2.1	1.6	53.1	45.3	1.6	
★ 004	1066	100.0	100.0	100.0	100.0	100.0	99.8	98.6	98.2	97.7	97.4	97.2	97.0	89.9	1.4	8.7	89.9		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: B.Tyhy/R.Stilwell
COMPILED BY: R.Stilwell
REVIEWED BY: M. Idrees

Pit #: 105 A-19
Complete: 10/11/2013 9:30:00 AM

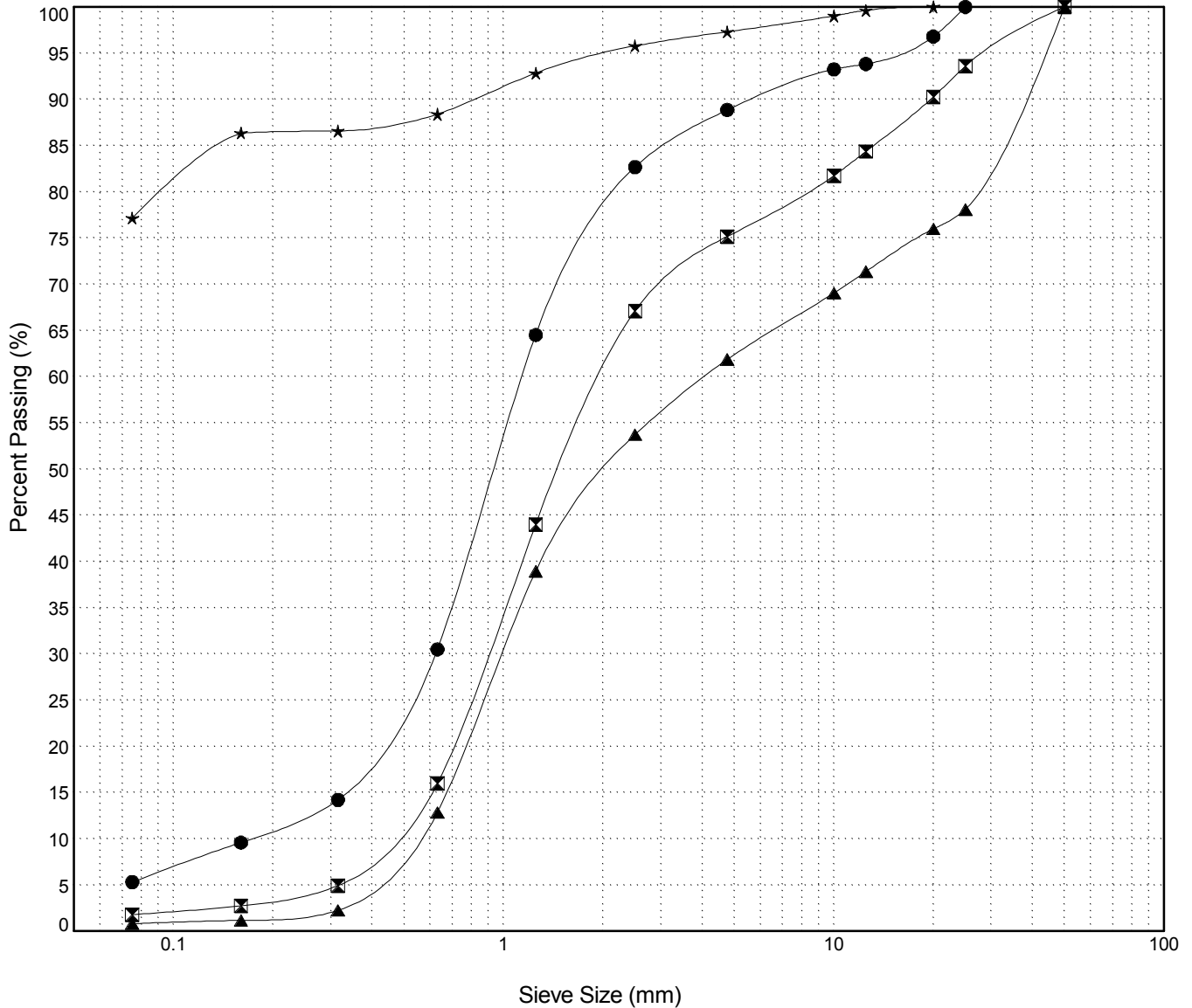
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4593
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724063.4m E490187.1m	ELEVATION: 675.8m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 005	1067	0.4 to 0.8	WELL-GRADED SAND with SILT(SW-SM)	5.9	NP	NP	NP	2.0	6.7
☒ 006	1068	1.4 to 1.7	POORLY GRADED SAND with GRAVEL(SP)	3.9	NP	NP	NP	0.9	4.7
▲ 007	1069	3.0 to 3.5	POORLY GRADED SAND with GRAVEL(SP)	2.0	NP	NP	NP	0.5	7.9
★ 008	1070	4.2 to 4.8	SILT with SAND(ML)	12.1	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
● 005	1067	100.0	100.0	100.0	100.0	96.8	93.8	93.2	88.8	82.7	64.5	30.5	14.2	9.6	5.3	11.2	83.5	5.3
☒ 006	1068	100.0	100.0	100.0	93.6	90.3	84.4	81.7	75.2	67.1	44.0	16.0	4.9	2.7	1.8	24.8	73.4	1.8
▲ 007	1069	100.0	100.0	100.0	78.1	76.0	71.4	69.0	61.9	53.7	38.9	12.9	2.3	1.2	0.8	38.1	61.0	0.8
★ 008	1070	100.0	100.0	100.0	100.0	99.6	99.0	97.3	95.8	92.8	88.4	86.6	86.3	77.2	2.7	20.2	77.2	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



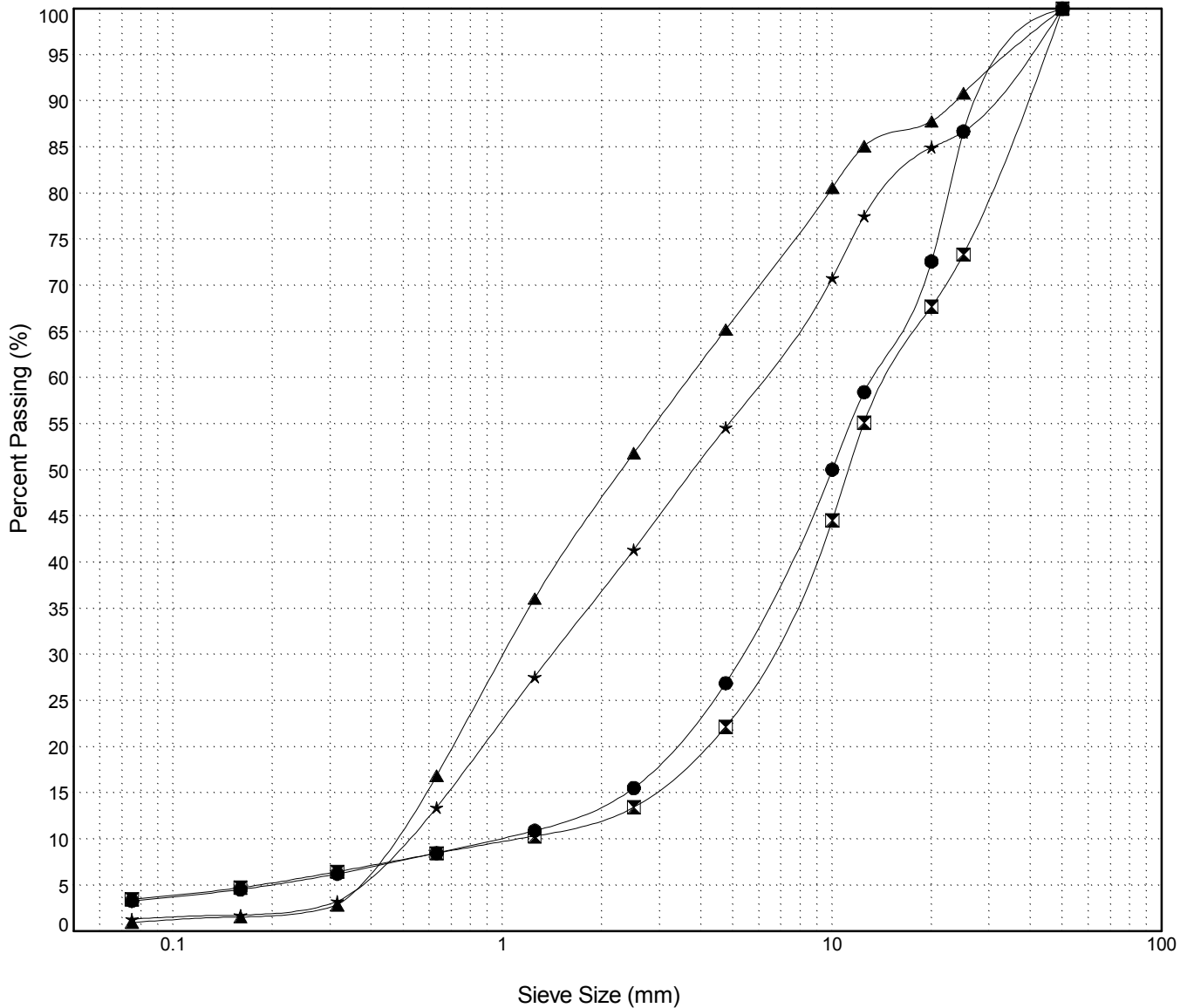
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4685
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6723936.3m E490035.8m	ELEVATION: 653.1m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 071	1242	0.4 to 0.8	WELL-GRADED GRAVEL with SAND(GW)	2.5	NP	NP	NP	2.2	13.6
☒ 072	1243	2.0 to 2.5	WELL-GRADED GRAVEL with SAND(GW)	2.2	NP	NP	NP	2.3	13.5
▲ 073	1244	3.0 to 3.5	POORLY GRADED SAND with GRAVEL(SP)	2.9	NP	NP	NP	0.6	8.2
★ 074	1245	4.2 to 4.5	POORLY GRADED SAND with GRAVEL(SP)	2.6	NP	NP	NP	0.7	12.2

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	Silt
● 071	1242	100.0	100.0	100.0	100.0	86.7	72.6	58.4	50.0	26.9	15.5	10.9	8.5	6.2	4.5	3.3	73.1	23.6	3.3
☒ 072	1243	100.0	100.0	100.0	73.4	67.7	55.1	44.6	22.2	13.4	10.3	8.5	6.5	4.7	3.5	77.8	18.7	3.5	
▲ 073	1244	100.0	100.0	100.0	90.8	87.8	85.1	80.6	65.2	51.8	36.1	16.9	2.9	1.5	1.0	34.8	64.3	1.0	
★ 074	1245	100.0	100.0	100.0	86.6	85.0	77.5	70.8	54.6	41.4	27.6	13.4	3.2	1.7	1.3	45.4	53.3	1.3	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: B.Tyhy
COMPILED BY: R.Stilwell
REVIEWED BY: M. Idrees

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Complete: 10/28/2013 9:30:00 AM

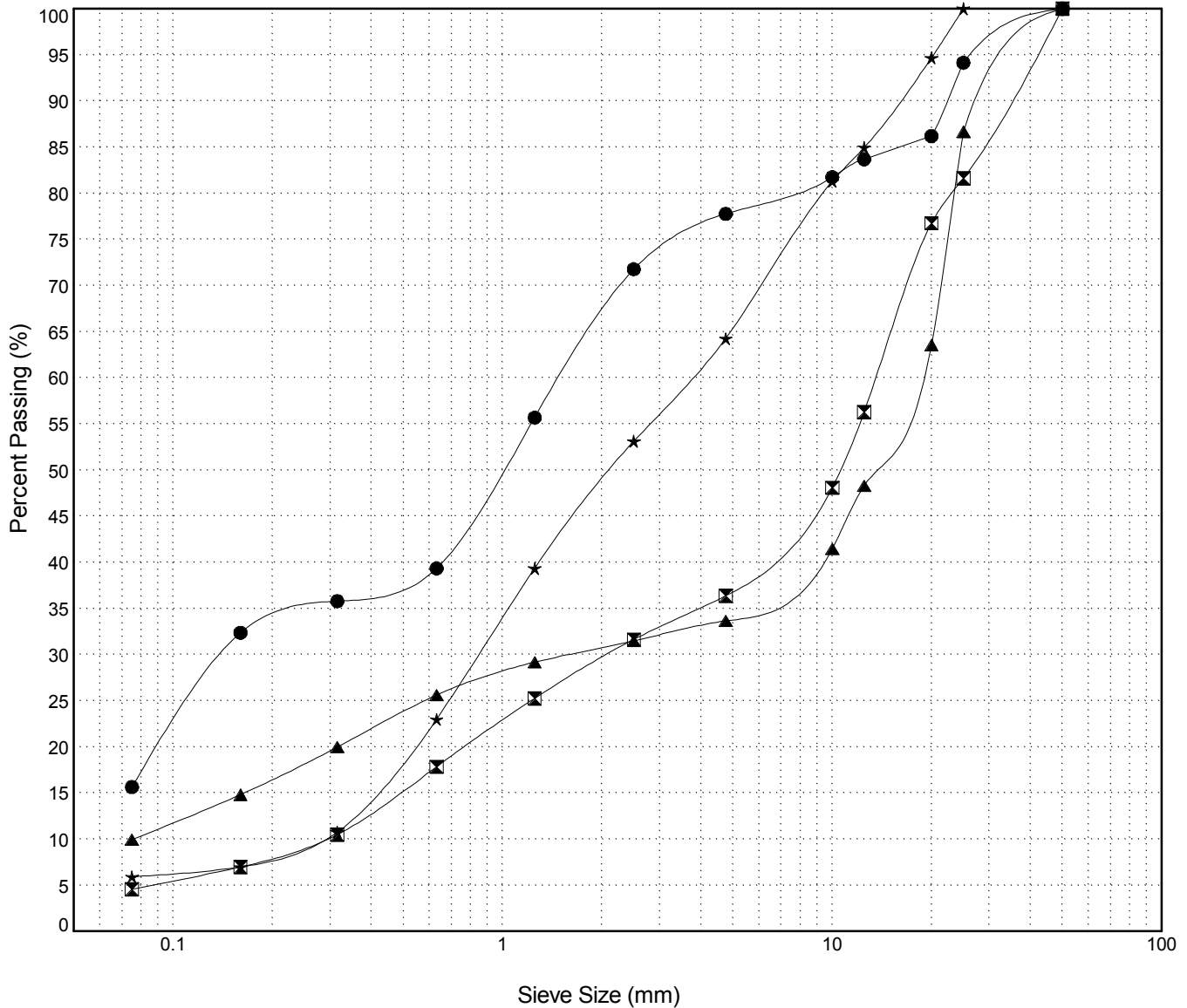
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4686
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724024.7m E490135.2m	ELEVATION: 657.8m

Master Revised July 2013

Field #	Lab #	Depth	Classification											%H2O	LL	PL	PI	Cc	Cu
● 075	1246	0.5 to 0.9	SILTY SAND with GRAVEL(SM)											6.7	NP	NP	NP		
☒ 076	1247	1.5 to 2.0	WELL-GRADED GRAVEL with SAND(GW)											2.4	NP	NP	NP	1.1	47.5
▲ 077	1248	2.6 to 3.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)											4.3	NP	NP	NP	1.9	236.9
★ 078	1249	3.4 to 3.7	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)											3.1	NP	NP	NP	0.7	13.5

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
● 075	1246	100.0	100.0	100.0	94.1	86.2	83.7	81.7	77.8	71.8	55.7	39.3	35.8	32.4	15.7	22.2	62.1	15.7	
☒ 076	1247	100.0	100.0	100.0	81.6	76.7	56.3	48.1	36.4	31.6	25.3	17.8	10.5	7.0	4.6	63.6	31.8	4.6	
▲ 077	1248	100.0	100.0	100.0	86.6	63.6	48.3	41.5	33.6	31.5	29.2	25.6	20.0	14.8	9.9	66.4	23.7	9.9	
★ 078	1249	100.0	100.0	100.0	100.0	94.7	84.9	81.3	64.2	53.1	39.3	23.0	10.8	7.0	5.9	35.8	58.3	5.9	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: B.Tyhy
COMPILED BY: R.Stilwell
REVIEWED BY: M. Idrees

Pit #: 105 A-19
Complete: 10/28/2013 10:30:00 AM

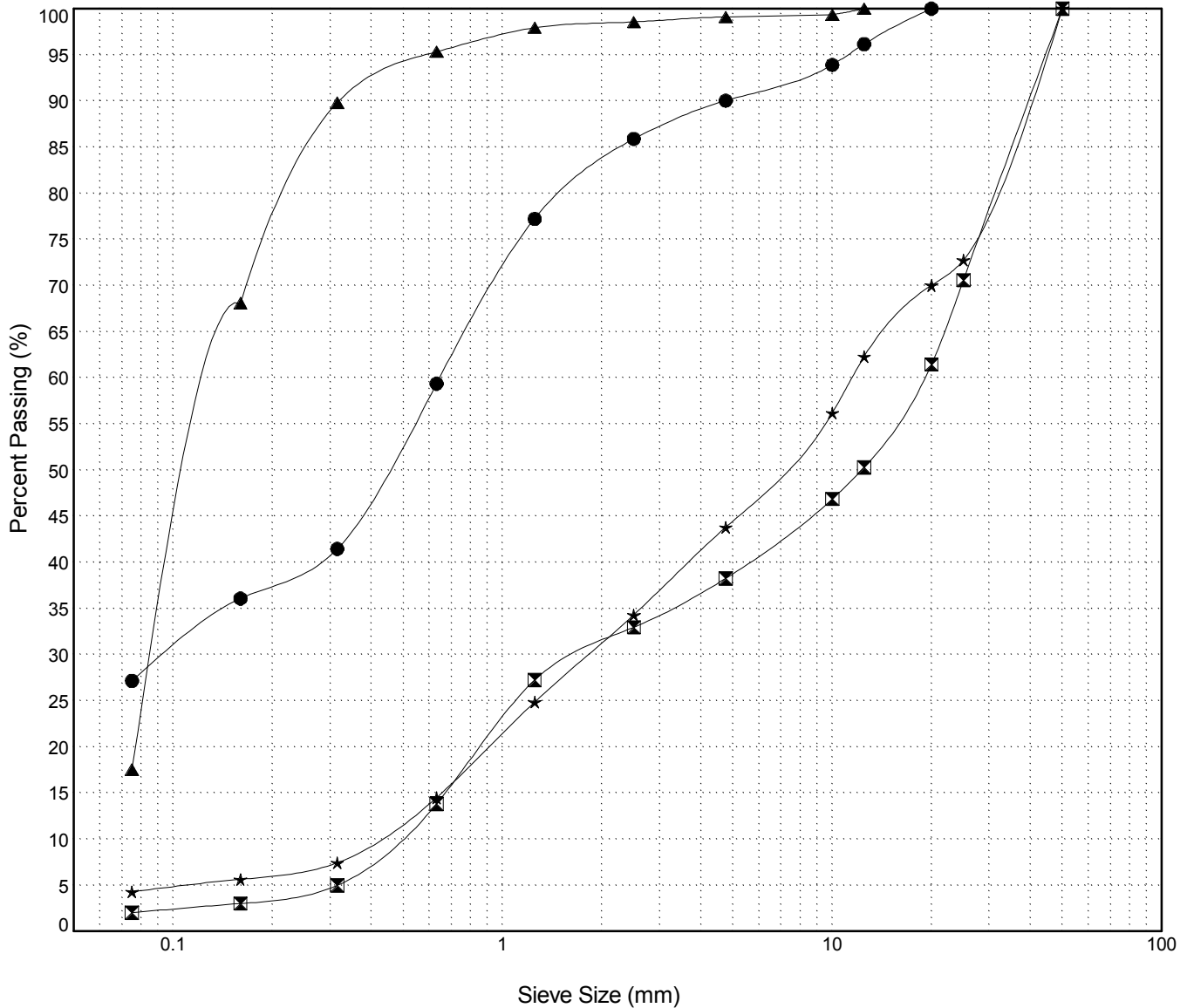
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4687
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724127.3m E490213.7m	ELEVATION: 666.2m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 079	1250	0.3 to 0.6	SILTY SAND(SM)	14.6	NP	NP	NP		
☒ 080	1251	1.2 to 1.5	POORLY GRADED GRAVEL with SAND(GP)	1.9	NP	NP	NP	0.3	40.3
▲ 081	1252	2.0 to 2.4	SILTY SAND(SM)	7.3	NP	NP	NP		
★ 082	1253	3.5 to 4.0	POORLY GRADED GRAVEL with SAND(GP)	3.4	NP	NP	NP	0.7	28.4

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	Silt
● 079	1250	100.0	100.0	100.0	100.0	100.0	96.2	93.9	90.0	85.9	77.2	59.4	41.5	36.1	27.2	10.0	62.9	27.2	
☒ 080	1251	100.0	100.0	100.0	70.6	61.4	50.3	46.9	38.2	32.9	27.2	13.8	5.0	3.0	2.0	61.8	36.2	2.0	
▲ 081	1252	100.0	100.0	100.0	100.0	100.0	100.0	99.3	99.1	98.6	97.9	95.3	89.8	68.1	17.5	0.9	81.6	17.5	
★ 082	1253	100.0	100.0	100.0	72.7	70.0	62.3	56.2	43.8	34.3	24.8	14.5	7.4	5.6	4.3	56.2	39.5	4.3	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: B.Tyhy
COMPILED BY: R.Stilwell
REVIEWED BY: M. Idrees

Pit #: 105 A-19
Complete: 10/28/2013 11:20:00 AM

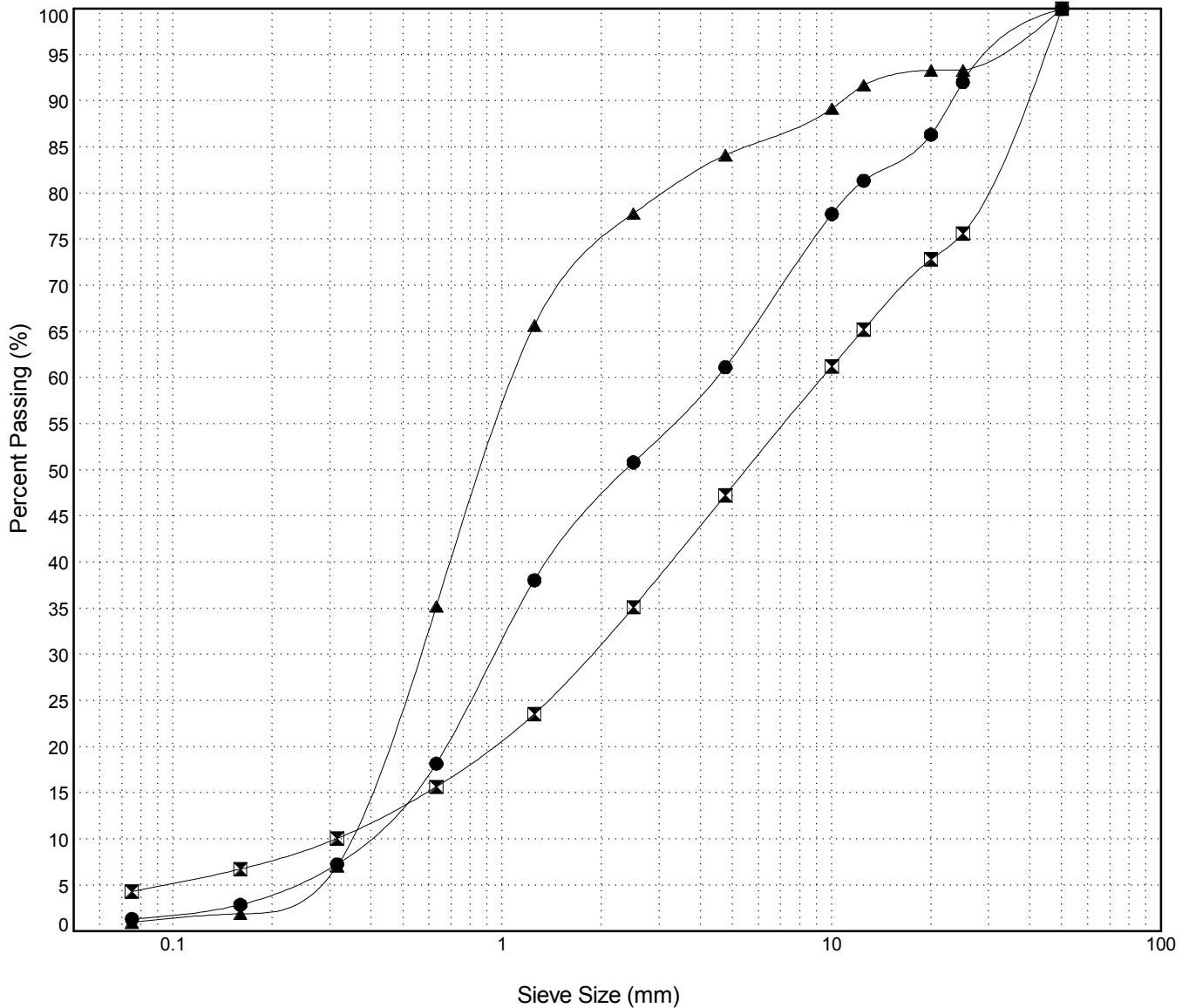
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4688
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724220.5m E490292.6m	ELEVATION: 666.1m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 083	1254	0.6 to 1.0	POORLY GRADED SAND with GRAVEL(SP)	3.7	NP	NP	NP	0.5	11.8
☒ 084	1255	2.0 to 2.4	WELL-GRADED GRAVEL with SAND(GW)	3.5	NP	NP	NP	1.2	30.1
▲ 085	1256	3.7 to 4.0	POORLY GRADED SAND with GRAVEL(SP)	2.6	NP	NP	NP	0.8	3.3

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	Silt	Clay
● 083	1254	100.0	100.0	100.0	100.0	92.0	86.3	81.3	77.7	61.1	50.8	38.1	18.2	7.3	2.9	1.3	38.9	59.8	1.3	
☒ 084	1255	100.0	100.0	100.0	75.6	72.8	65.2	61.2	47.3	35.1	23.6	15.7	10.1	6.7	4.3		52.7	42.9	4.3	
▲ 085	1256	100.0	100.0	100.0	93.3	93.3	91.7	89.2	84.1	77.8	65.7	35.2	7.1	1.9	1.0		15.9	83.1	1.0	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: B.Tyhy
COMPILED BY: R.Stilwell
REVIEWED BY: M. Idrees

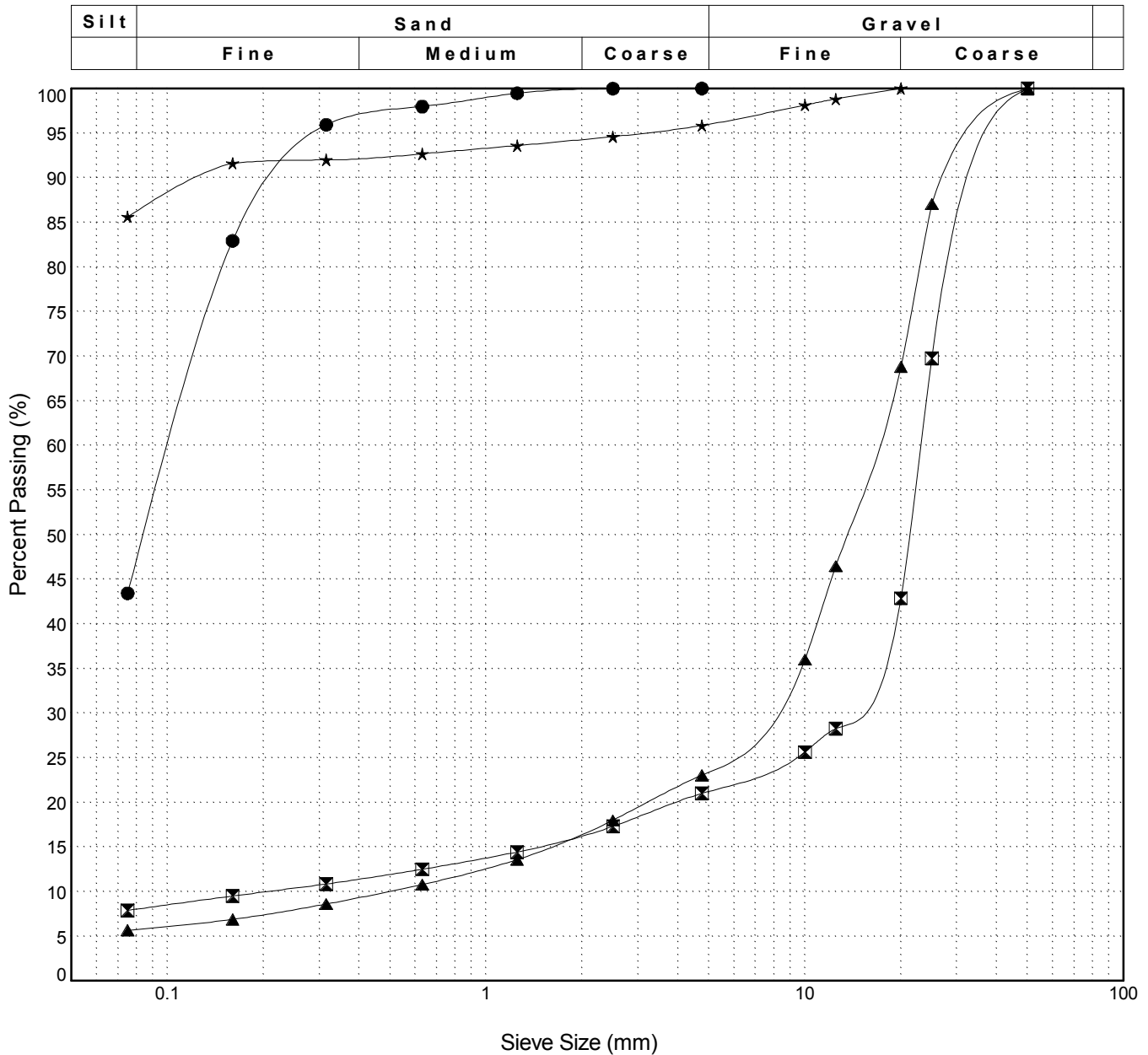
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GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4689
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724319.5m E490332m	ELEVATION: 672.4m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 086	1257	0.5 to 0.8	SILTY SAND(SM)	16.2	NP	NP	NP		
☒ 087	1258	1.4 to 1.8	POORLY GRADED GRAVEL with SILT(GP-GM)	3.4	NP	NP	NP	37.0	112.7
▲ 088	1259	3.0 to 3.4	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	2.5	NP	NP	NP	6.2	34.0
★ 089	1260	4.4 to 4.8	SILT(ML)	23.3	NP	NP	NP		

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
● 086	1257	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	98.0	95.9	82.9	43.4	0.0	56.6	43.4	
☒ 087	1258	100.0	100.0	100.0	69.7	42.9	28.3	25.6	21.0	17.3	14.4	12.5	10.9	9.5	7.9	79.0	13.1	7.9	
▲ 088	1259	100.0	100.0	100.0	87.0	68.8	46.5	36.0	23.0	18.0	13.6	10.8	8.6	6.9	5.7	77.0	17.4	5.7	
★ 089	1260	100.0	100.0	100.0	100.0	100.0	98.8	98.1	95.8	94.6	93.6	92.7	92.0	91.6	85.6	4.2	10.2	85.6	



Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: R.Stilwell
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Complete: 10/28/2013 1:30:00 PM

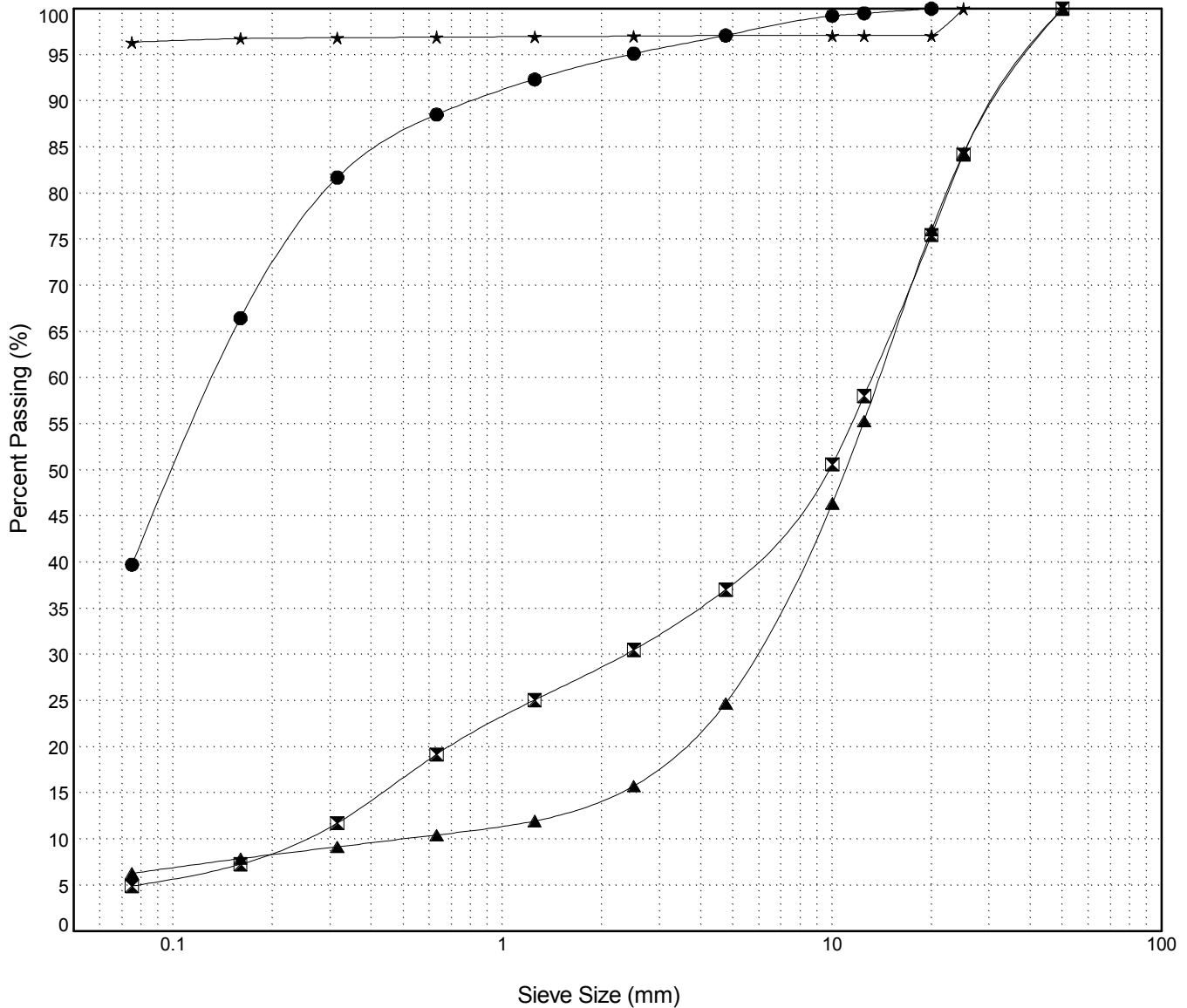
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4690
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724365m E490251.1m	ELEVATION: 681.4m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 090	1261	0.6 to 1.0	SILTY SAND(SM)	14.9	NP	NP	NP		
☒ 091	1262	1.6 to 2.0	WELL-GRADED GRAVEL with SAND(GW)	2.8	NP	NP	NP	1.7	54.4
▲ 092	1263	3.0 to 3.4	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	3.1	NP	NP	NP	4.7	28.1
★ 093	1264	4.6 to 5.0	SILT(ML)	30.5	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
● 090	1261	100.0	100.0	100.0	100.0	100.0	99.5	99.2	97.1	95.1	92.3	88.5	81.7	66.5	39.7	2.9	57.4	39.7
☒ 091	1262	100.0	100.0	100.0	84.2	75.5	58.0	50.6	37.0	30.5	25.1	19.2	11.7	7.3	4.9	63.0	32.1	4.9
▲ 092	1263	100.0	100.0	100.0	84.3	76.0	55.3	46.4	24.7	15.8	12.0	10.4	9.2	7.9	6.3	75.3	18.4	6.3
★ 093	1264	100.0	100.0	100.0	100.0	97.1	97.1	97.1	97.1	97.0	97.0	96.9	96.8	96.7	96.4	2.9	0.7	96.4

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

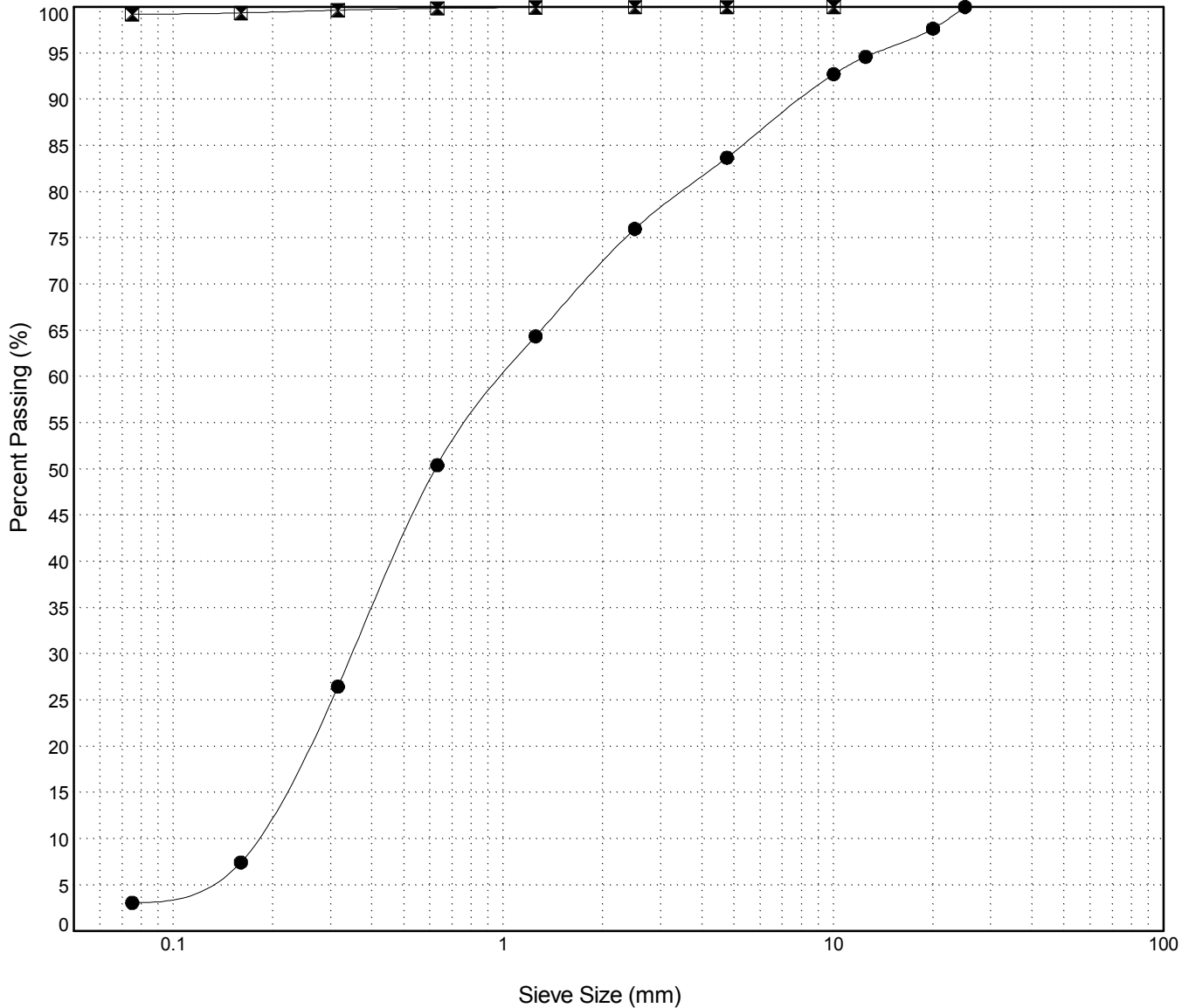


GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4691
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724392.2m E490178.1m	ELEVATION: 699.8m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu											
● 094	1265	0.6 to 1.0	POORLY GRADED SAND with GRAVEL(SP)	5.4	NP	NP	NP	0.7	5.8											
☒ 095	1266	3.5 to 4.0	SILT(ML)	16.9	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				
● 094	1265	100.0	100.0	100.0	100.0	97.7	94.6	92.7	83.7	76.0	64.4	50.4	26.5	7.4	3.1	Gravel	Sand	Silt	Clay	
☒ 095	1266	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.6	99.3	99.2	0.0	0.8	99.2		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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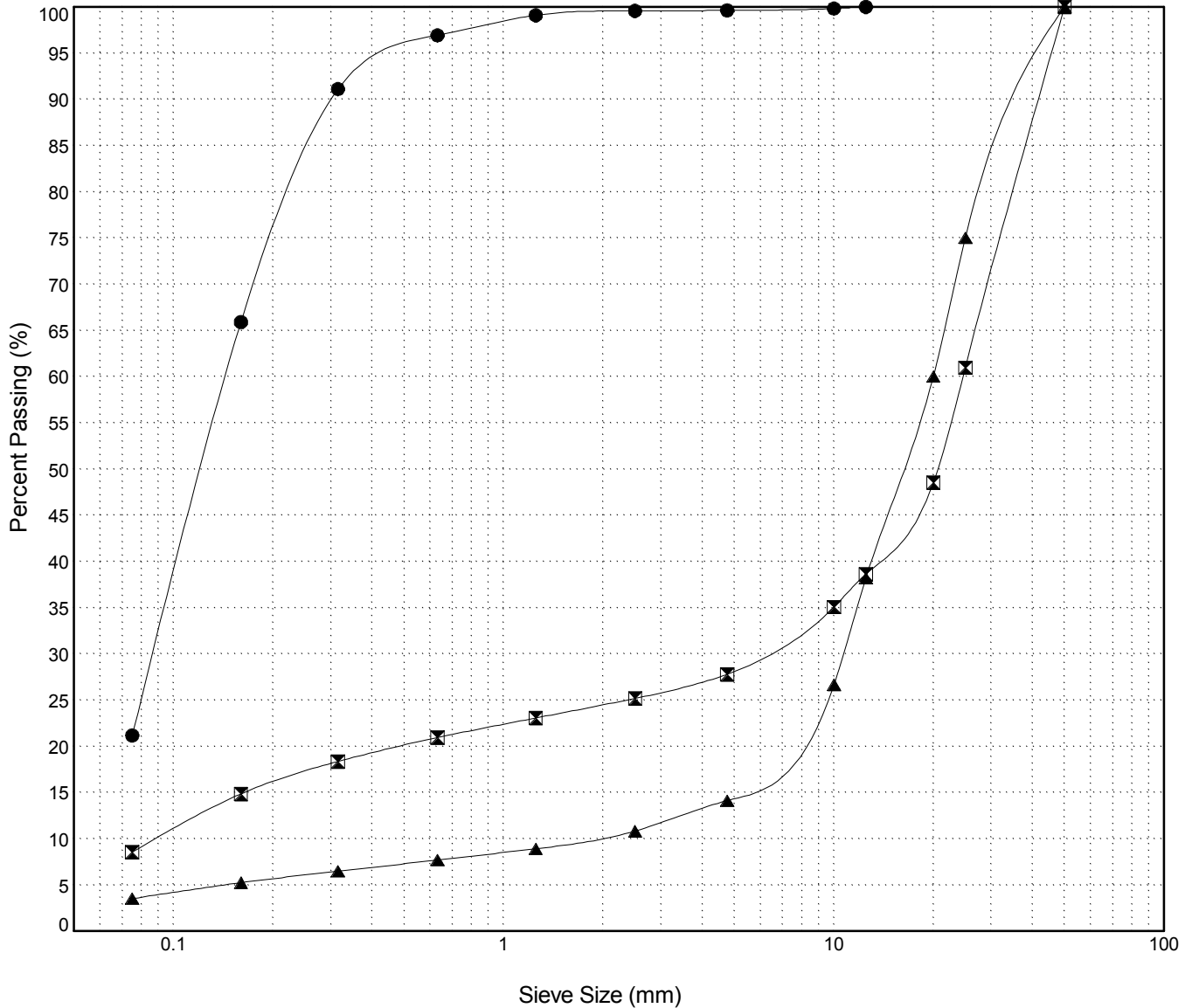
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4692
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724085m E490120.5m	ELEVATION: 701.1m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 096	1267	0.6 to 0.8	SILTY SAND(SM)	4.3	NP	NP	NP		
☒ 097	1268	2.0 to 2.5	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	1.5	NP	NP	NP	16.2	275.8
▲ 098	1269	3.3 to 3.7	POORLY GRADED GRAVEL(GP)	1.3	NP	NP	NP	3.1	10.8

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	Silt
● 096	1267	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.6	99.6	99.1	96.9	91.1	65.9	21.2	0.4	78.4	21.2	
☒ 097	1268	100.0	100.0	100.0	61.0	48.5	38.6	35.1	27.8	25.2	23.1	21.0	18.4	14.9	8.6	72.2	19.2	8.6	
▲ 098	1269	100.0	100.0	100.0	75.0	60.0	38.2	26.7	14.1	10.8	8.9	7.7	6.5	5.3	3.5	85.9	10.6	3.5	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



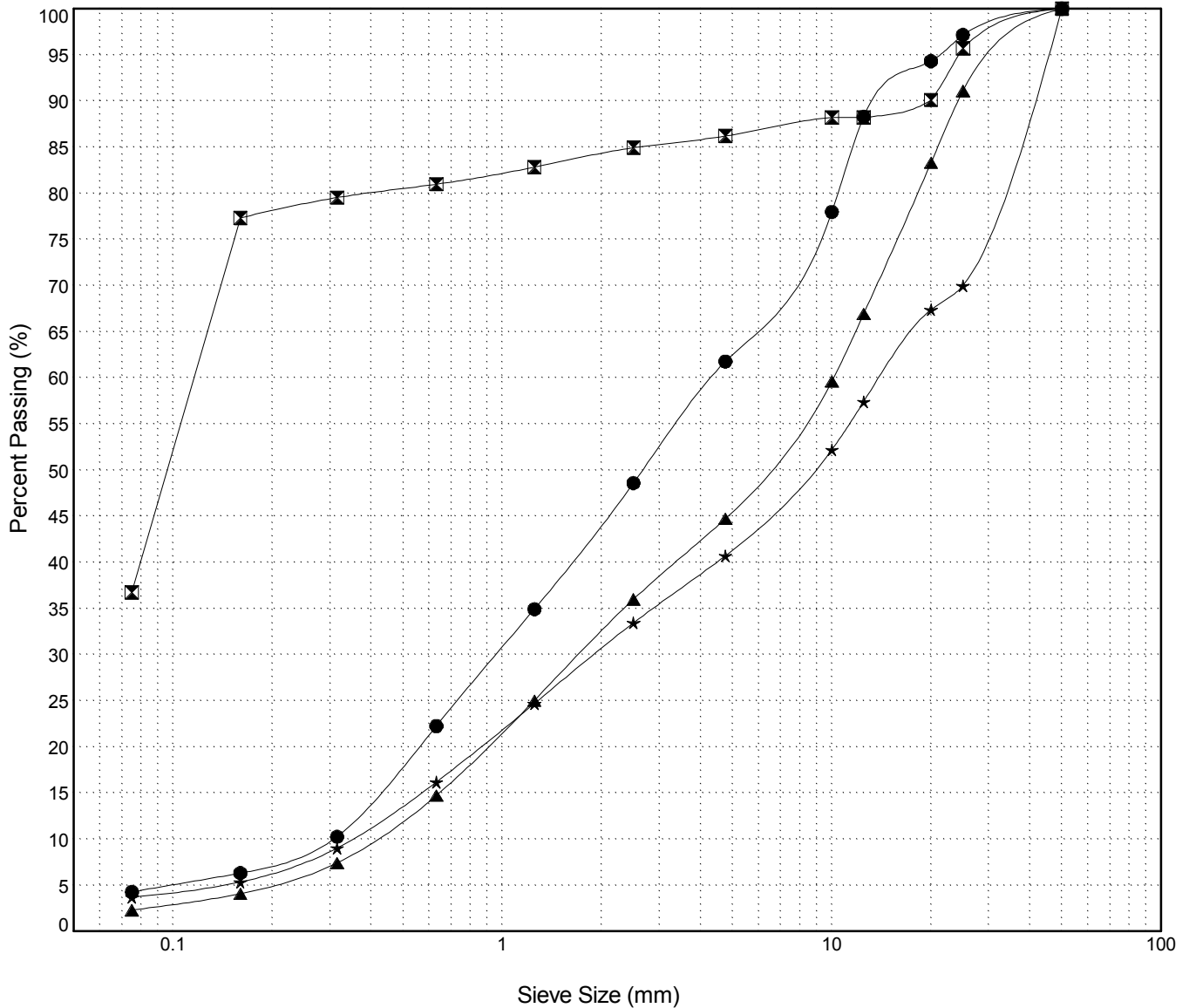
GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4694
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724254.8m E490206m	ELEVATION: 799.7m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 103	1274	0.5 to 0.7	POORLY GRADED SAND with GRAVEL(SP)	4.6	NP	NP	NP	0.7	14.5
☒ 104	1275	1.2 to 1.6	SILTY SAND(SM)	8.2	NP	NP	NP		
▲ 105	1276	2.0 to 2.5	POORLY GRADED GRAVEL with SAND(GP)	1.7	NP	NP	NP	0.7	25.1
★ 106	1277	4.4 to 4.7	POORLY GRADED GRAVEL with SAND(GP)	2.1	NP	NP	NP	0.7	40.8

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	Silt	Clay
● 103	1274	100.0	100.0	100.0	100.0	97.1	94.3	88.3	78.0	61.8	48.6	34.9	22.3	10.3	6.3	4.3	38.2	57.5	4.3	
☒ 104	1275	100.0	100.0	100.0	95.7	90.1	88.2	88.2	86.2	84.9	82.8	81.0	79.5	77.3	36.7	13.8	49.5	36.7		
▲ 105	1276	100.0	100.0	100.0	91.1	83.3	66.9	59.6	44.7	36.0	25.0	14.7	7.4	4.1	2.3	55.3	42.4	2.3		
★ 106	1277	100.0	100.0	100.0	70.0	67.4	57.4	52.2	40.7	33.4	24.7	16.2	9.0	5.3	3.7	59.3	37.0	3.7		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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REVIEWED BY: M. Idrees

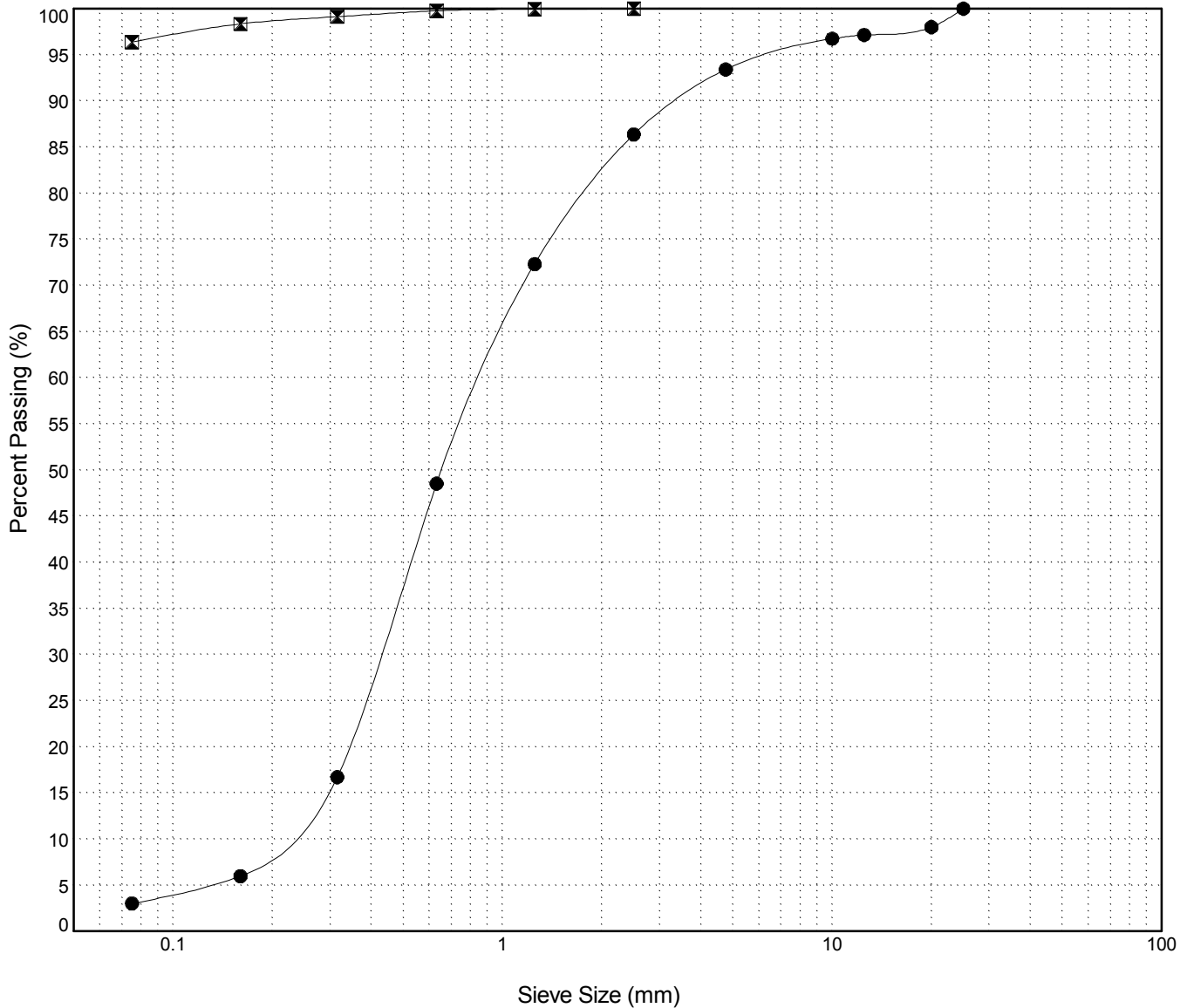
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Complete: 10/29/2013 9:10:00 AM

GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4695
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724267.5m E490114m	ELEVATION: 803.8m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu											
● 107	1278	0.5 to 1.0	POORLY GRADED SAND(SP)	5.5	NP	NP	NP	1.0	4.3											
☒ 108	1279	2.2 to 2.6	SILT(ML)	24.0	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				
● 107	1278	100.0	100.0	100.0	100.0	98.0	97.1	96.7	93.4	86.4	72.3	48.5	16.7	6.0	3.0	Gravel	Sand	Silt	Clay	
☒ 108	1279	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.1	98.3	96.4	0.0	3.6	96.4		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
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REVIEWED BY: M. Idrees

Pit #: 105 A-19
Complete: 10/29/2013 9:50:00 AM

GRAIN SIZE ANALYSIS	Campbell Highway Gravel Search km 70-90	SOURCE/TP#: 825-4696
J.Magun	km 78.1 RHS	PROJECT NO: 552-202104-2035-0661-5
Hitachi 200 LC	Coordinates:Z9 N6724191.1m E490084.8m	ELEVATION: 803.5m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 109	1280	0.5 to 0.8	WELL-GRADED GRAVEL with SAND(GW)	4.4	NP	NP	NP	1.7	8.7
☒ 110	1281	1.6 to 2.0	WELL-GRADED GRAVEL with SAND(GW)	1.4	NP	NP	NP	2.1	26.0
▲ 111	1282	3.4 to 3.8	WELL-GRADED SAND with GRAVEL(SW)	2.2	NP	NP	NP	1.1	10.8

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
● 109	1280	100.0	100.0	100.0	100.0	98.7	94.4	83.0	76.4	47.7	24.3	13.2	8.9	5.8	4.0	2.8	52.3	44.9	2.8	
☒ 110	1281	100.0	100.0	100.0	68.1	62.2	50.0	43.9	27.8	18.2	12.3	9.5	7.1	4.7	2.9	72.2	24.9	2.9		
▲ 111	1282	100.0	100.0	100.0	85.9	84.2	75.1	69.3	52.4	33.5	17.6	10.2	5.6	3.2	2.0	47.6	50.4	2.0		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

