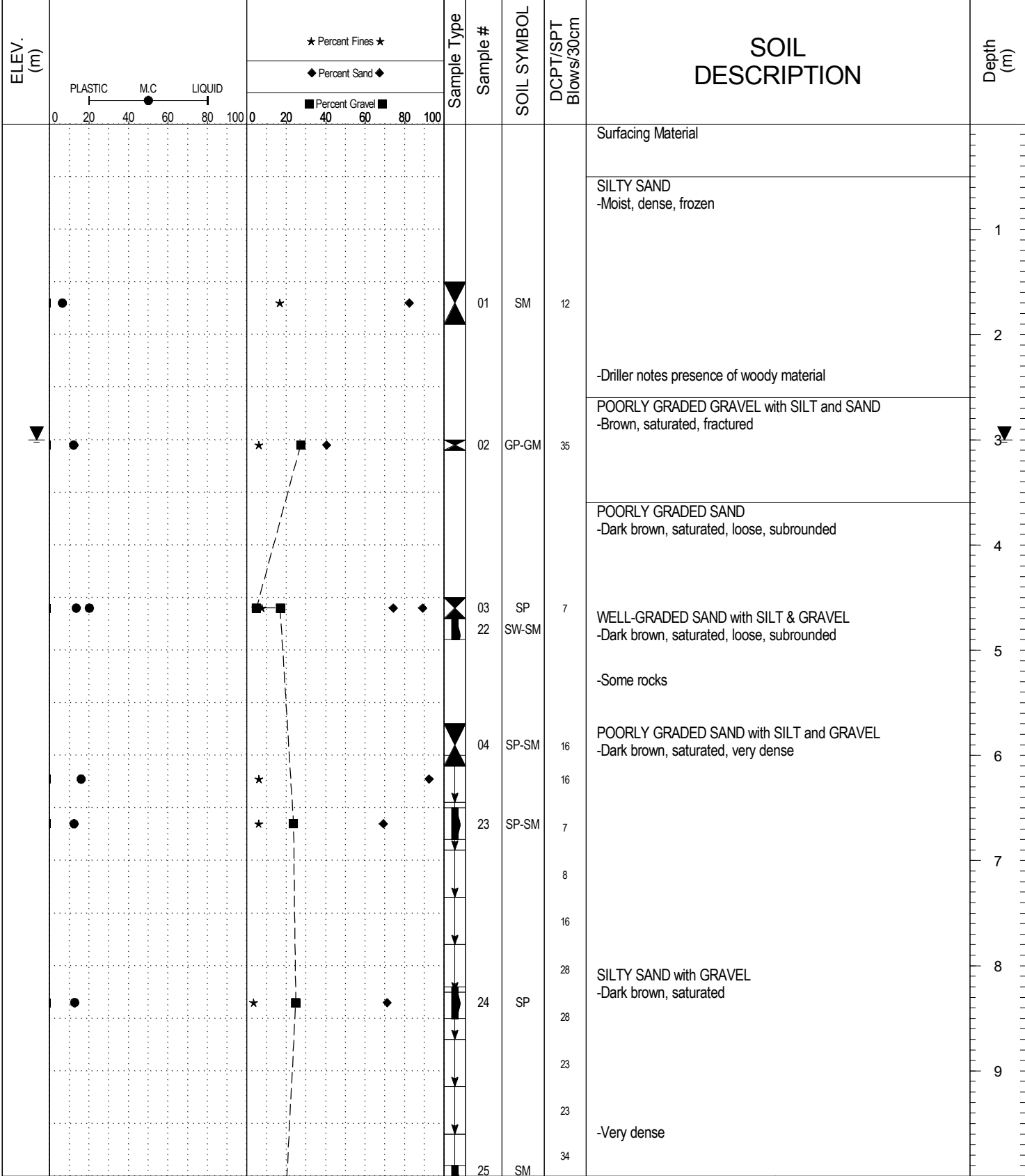


SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



SUBSURFACE EXPLORATION AND TEST REPORT		Atlin Road	SOURCE/TP#: 849-5108
Darkside Drilling		Hwy 7 SNAFU/TARFU Bridges, km 24.9 - 29.8,	PROJECT NO: 552-202107-0121-0661-3
B61 150mm		Coordinates: Z08V N6667997m E565074m	ELEVATION: m

SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE

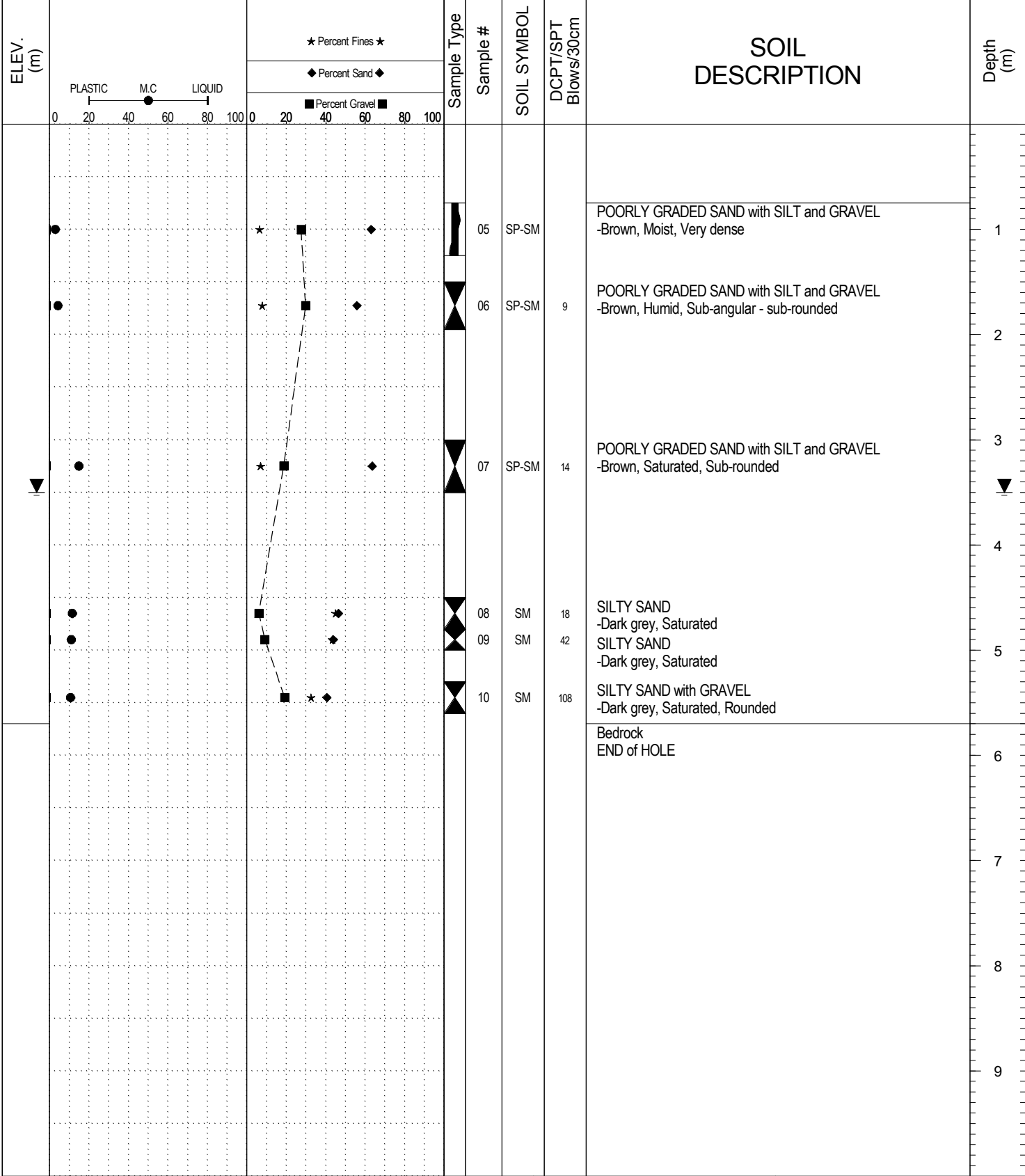
ELEV. (m)					Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						25	SM	29	-Very dense	
						26	SM	28	-Dark blue-grey, dense	11
						27	SM	26	-May be plastic	12
						27	SM	91	-DCPT 101 Blows EOH	12
									END of HOLE -Refusal - proved not bedrock	13
										14
										15
										16
										17
										18
										19



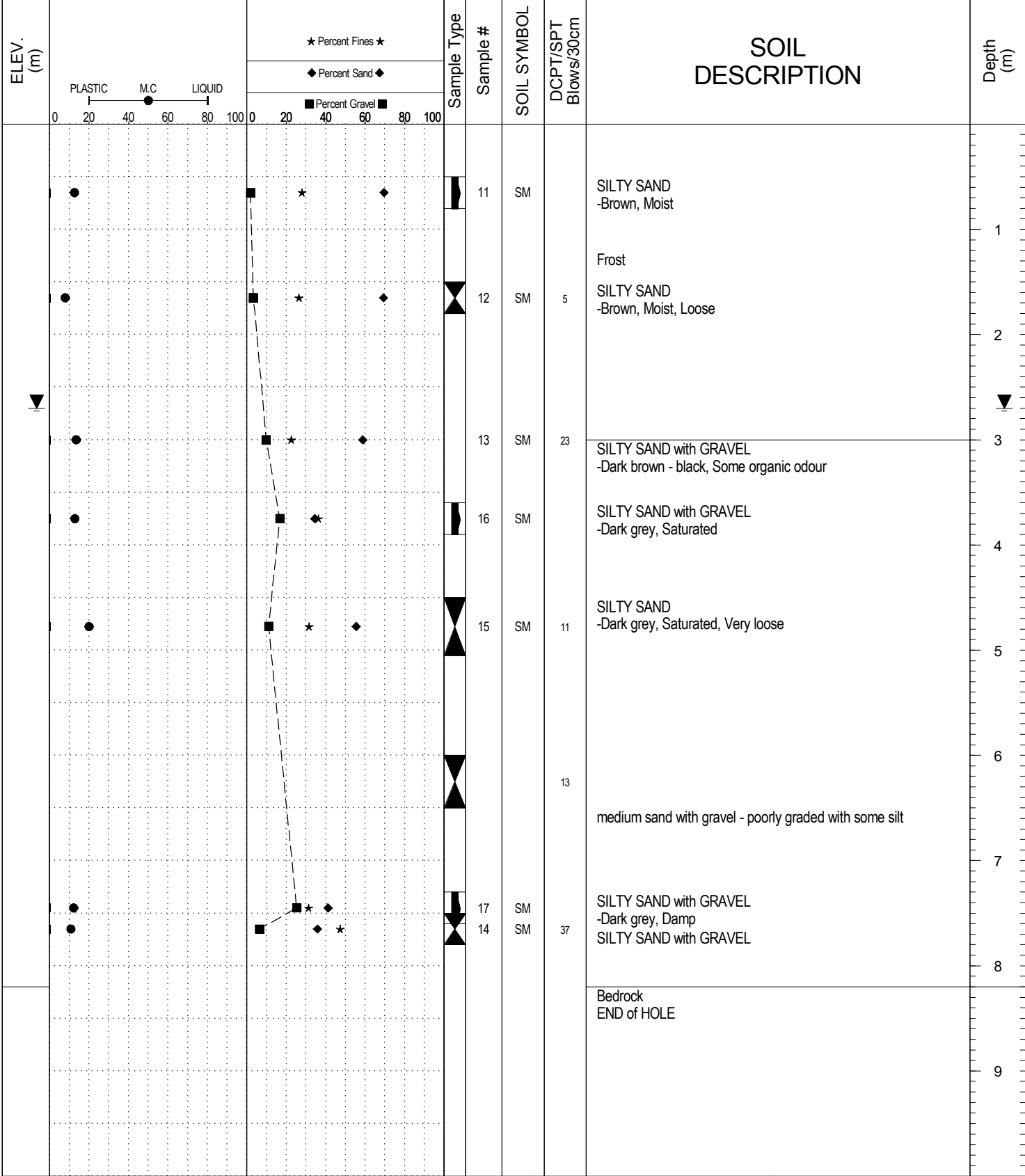
**Highways and Public Works
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LOGGED BY: R.Stilwell	Termination Depth: 12.5m
COMPILED BY: J Hopkins	Complete:
REVIEWED BY: R.Stilwell	Pit #:

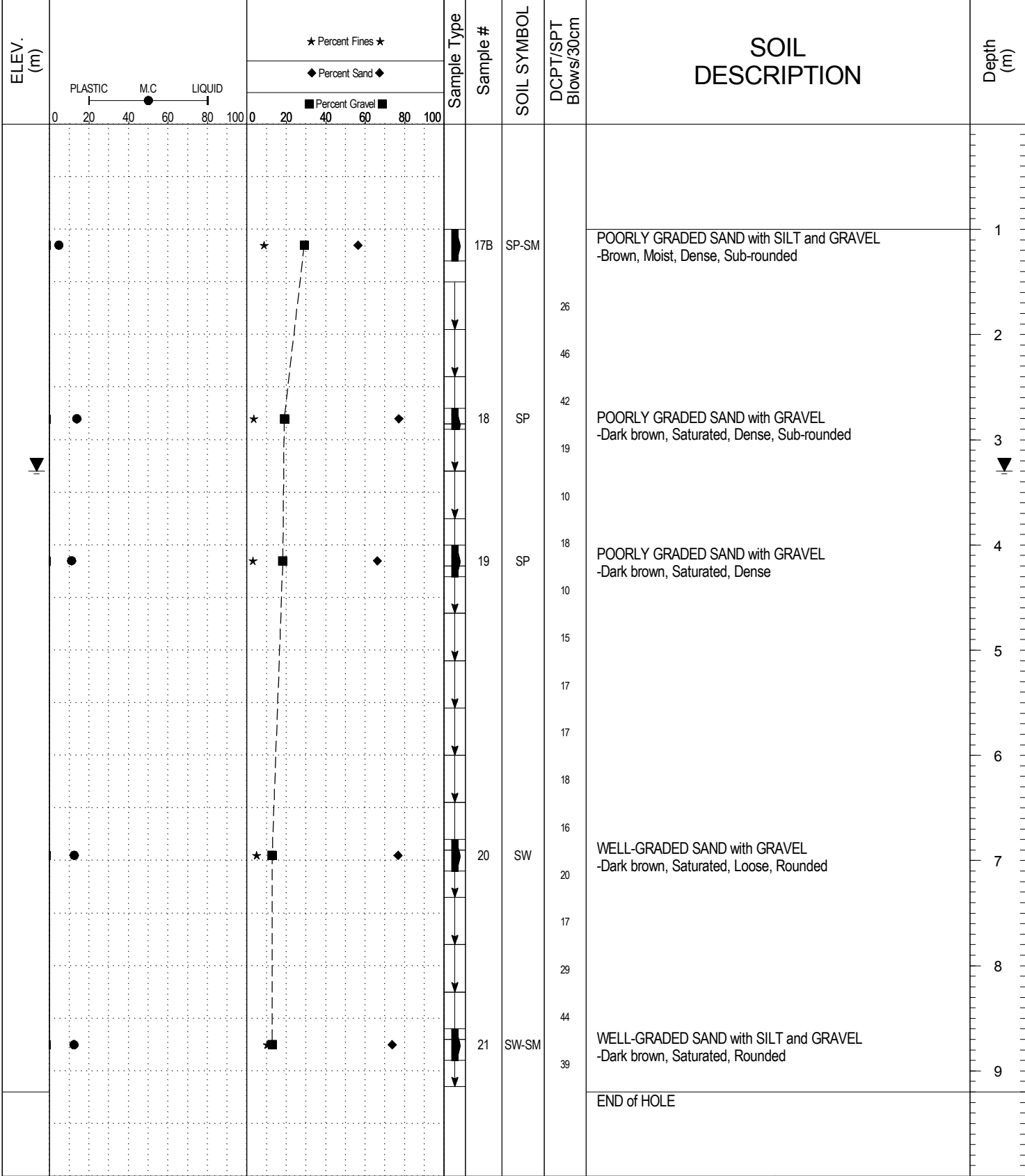
SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



SAMPLE TYPE RETURN DCPT AUGER BULK SPT CORE



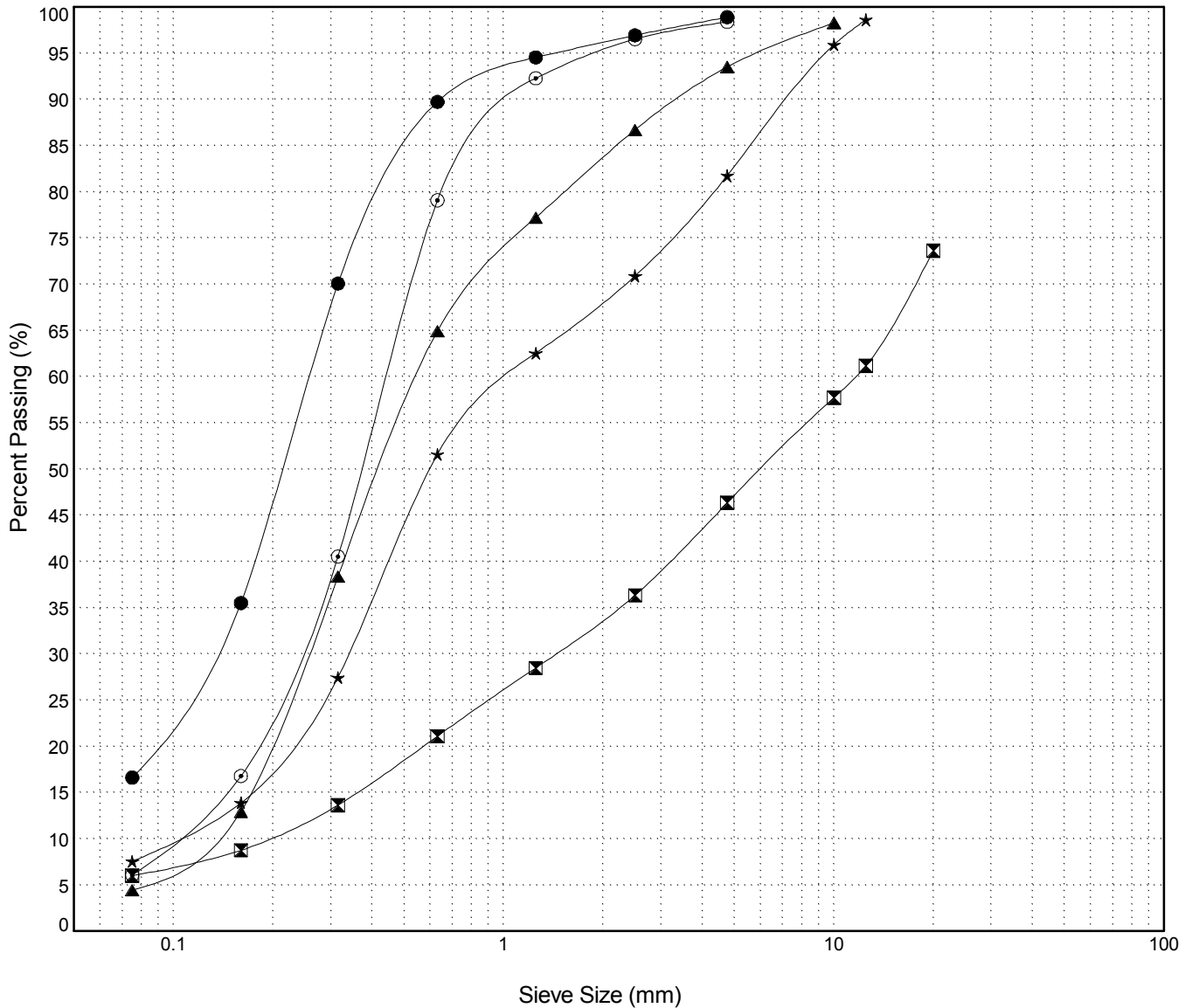
GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5108
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6667997m E565074m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 01	505	1.5 to	SILTY SAND(SM)	6.4	NP	NP	NP		
☒ 02	506	3.0 to	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	12.1	NP	NP	NP	0.9	61.0
▲ 03	507	4.5 to	POORLY GRADED SAND(SP)	20.1	NP	NP	NP	0.9	4.5
★	508	4.6 to 4.9	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	13.5	NP	NP	NP	1.1	10.6
⊙	509	6.0 to	POORLY GRADED SAND with SILT(SP-SM)	15.9	NP	NP	NP	1.2	4.5

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
● 01	505	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	96.9	94.5	89.7	70.1	35.5	16.6	82.3	16.6		
☒ 02	506	100.0	100.0	100.0	100.0	73.6	61.2	57.7	46.3	36.3	28.5	21.1	13.6	8.8	6.0		27.3	40.3	6.0	
▲ 03	507	100.0	100.0	100.0	100.0	100.0	100.0	98.3	93.5	86.7	77.2	64.9	38.4	12.9	4.4		4.8	89.0	4.4	
★	508	100.0	100.0	100.0	100.0	100.0	98.6	95.9	81.7	70.9	62.5	51.6	27.5	13.9	7.6		16.9	74.2	7.6	
⊙	509	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4	96.5	92.3	79.1	40.5	16.8	6.1		92.3	6.1		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



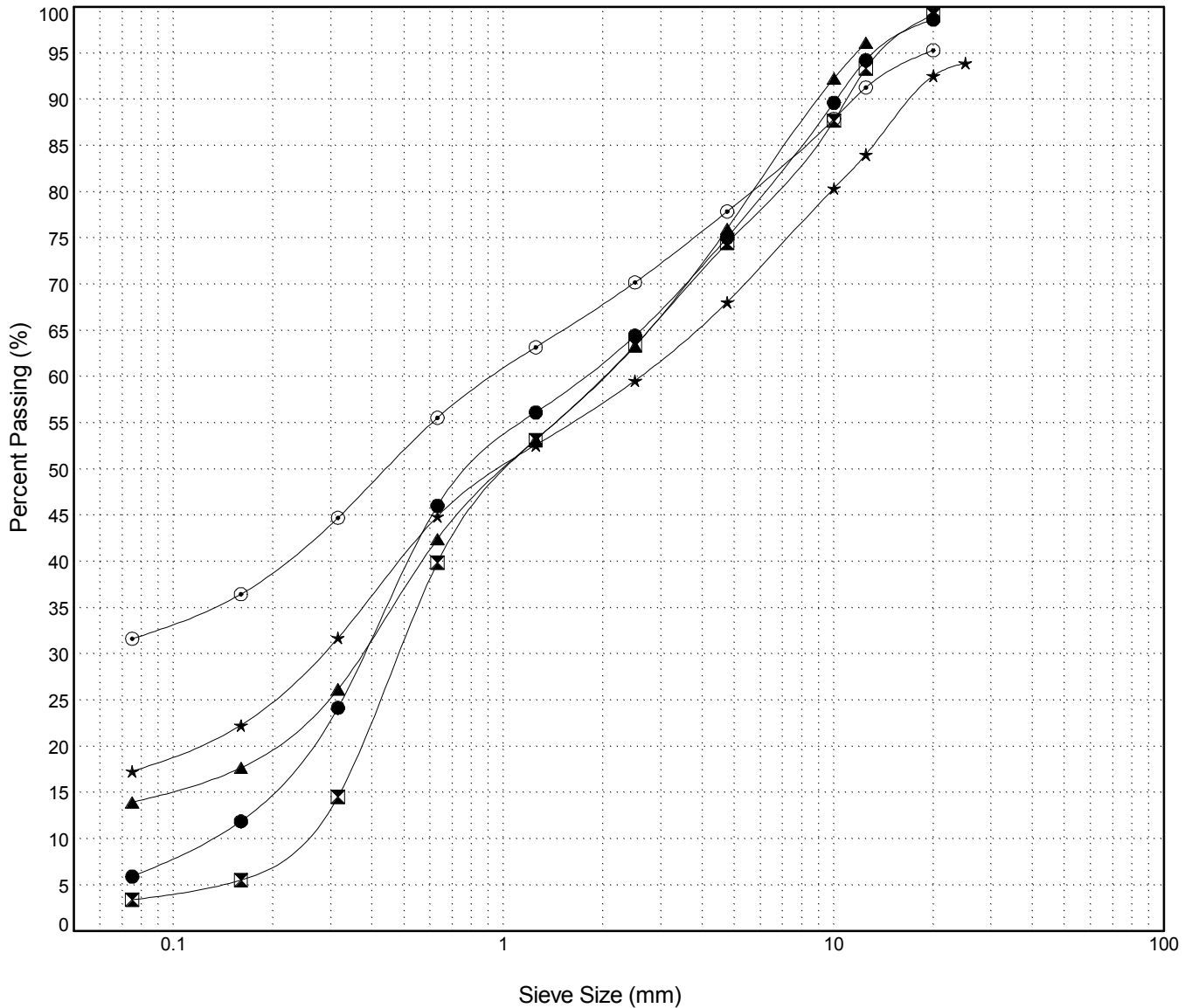
GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5108
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6667997m E565074m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 23	510	6.5 to 6.8	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	12.4	NP	NP	NP	0.7	13.7
☒ 24	511	8.2 to 8.5	POORLY GRADED SAND with GRAVEL(SP)	12.7	NP	NP	NP	0.5	8.9
▲ 25	512	9.9 to 10.2	SILTY SAND with GRAVEL(SM)	9.7	NP	NP	NP		
★ 26	513	10.8 to 11.1	SILTY SAND with GRAVEL(SM)	9.4	NP	NP	NP		
⊙ 27	514	11.8 to 12.1	SILTY SAND with GRAVEL(SM)	12.5	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	
● 23	510	100.0	100.0	100.0	100.0	98.6	94.2	89.6	75.0	64.4	56.1	46.0	24.2	11.9	5.9	23.6	69.1	5.9		
☒ 24	511	100.0	100.0	100.0	100.0	99.1	93.3	87.7	74.4	63.4	53.1	39.9	14.5	5.5	3.4	24.7	71.0	3.4		
▲ 25	512	100.0	100.0	100.0	100.0	100.0	96.1	92.3	76.0	63.3	53.2	42.4	26.2	17.7	13.9	20.1	62.0	13.9		
★ 26	513	100.0	100.0	100.0	93.9	92.6	84.0	80.4	68.1	59.6	52.6	44.9	31.7	22.3	17.3	25.9	50.7	17.3		
⊙ 27	514	100.0	100.0	100.0	100.0	95.3	91.3	87.9	77.9	70.2	63.2	55.5	44.7	36.5	31.6	17.4	46.2	31.6		

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: R.Stilwell
COMPILED BY: J.Hopkins
REVIEWED BY: R.Stilwell

Pit #:
Complete:

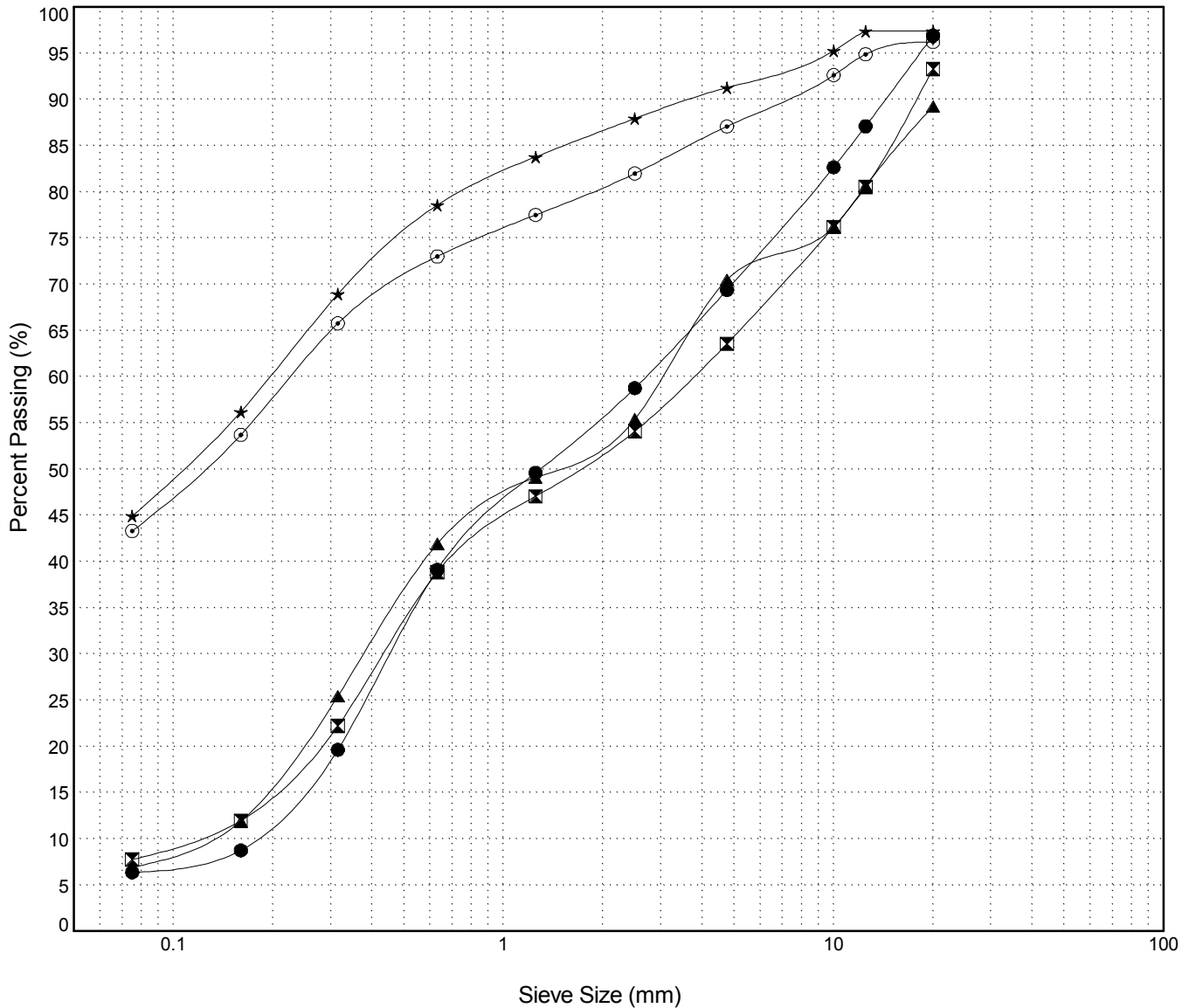
GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5109
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6663330m E565791m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 05	515	0.8 to 1.3	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	2.9	NP	NP	NP	0.4	15.6
☒ 06	516	1.5 to	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	4.2	NP	NP	NP	0.5	33.3
▲ 07	517	3.0 to 3.5	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	14.8	NP	NP	NP	0.4	25.4
★ 08	518	4.5 to 4.8	SILTY SAND(SM)	11.5	NP	NP	NP		
⊙ 09	519	4.8 to 5.0	SILTY SAND(SM)	10.9	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			
		%PASSING														Gravel	Sand	Silt	Clay
● 05	515	100.0	100.0	100.0	100.0	96.9	87.1	82.7	69.4	58.8	49.6	39.1	19.6	8.8	6.4	27.5	63.0	6.4	
☒ 06	516	100.0	100.0	100.0	100.0	93.3	80.5	76.2	63.6	54.1	47.1	38.9	22.2	12.0	7.8	29.7	55.8	7.8	
▲ 07	517	100.0	100.0	100.0	100.0	89.2	80.6	76.2	70.5	55.4	49.1	41.9	25.4	11.9	6.9	18.7	63.6	6.9	
★ 08	518	100.0	100.0	100.0	100.0	97.4	97.4	95.3	91.3	87.9	83.8	78.6	68.9	56.2	44.9	6.1	46.3	44.9	
⊙ 09	519	100.0	100.0	100.0	100.0	96.2	94.9	92.6	87.1	82.0	77.5	73.0	65.8	53.7	43.3	9.1	43.8	43.3	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: J.Hopkins
REVIEWED BY: R.Stilwell

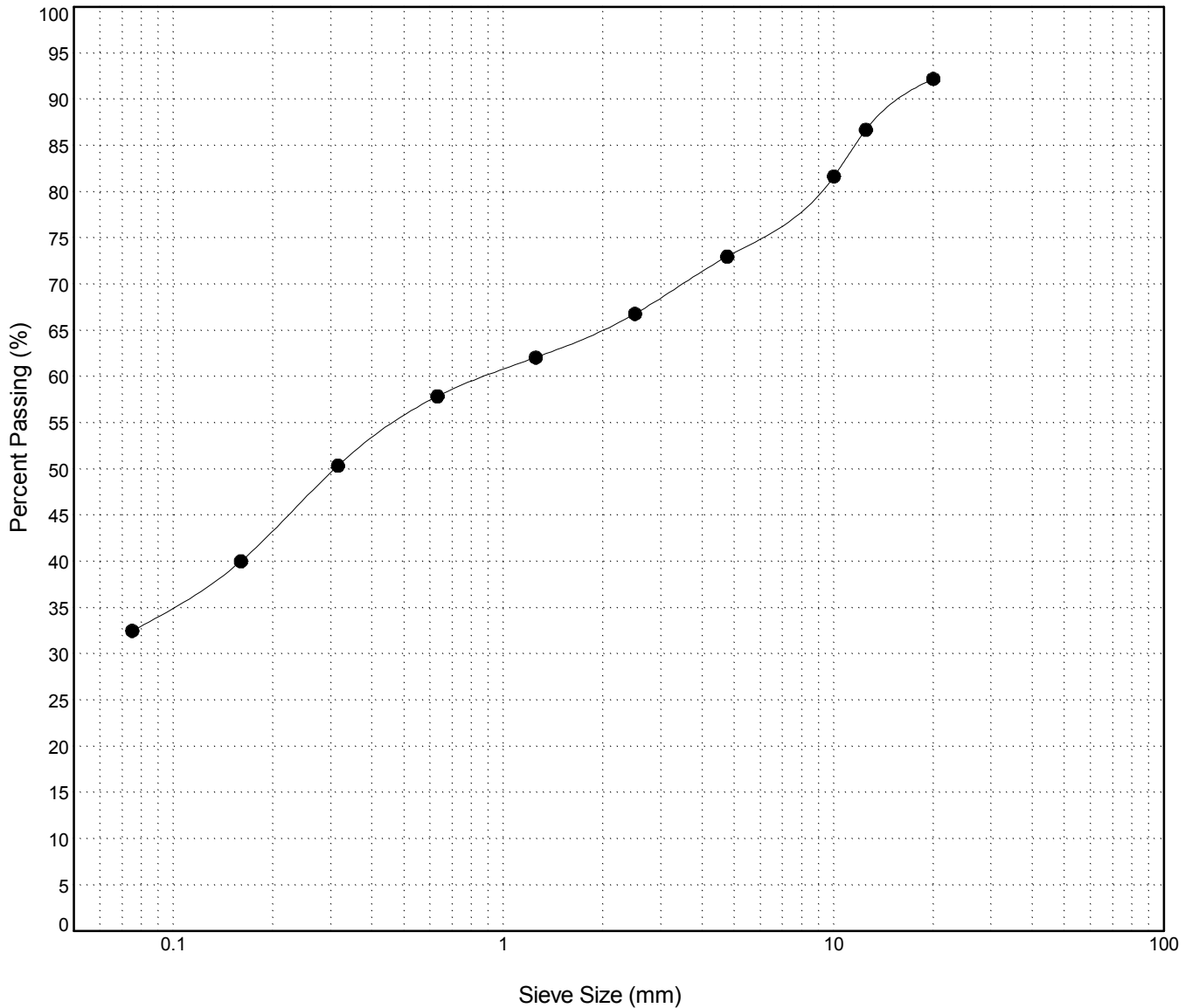
Pit #:
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GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5109
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6663330m E565791m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification											%H2O	LL	PL	PI	Cc	Cu
● 10	520	5.3 to 5.6	SILTY SAND with GRAVEL(SM)											10.6	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			
● 10	520	100.0	100.0	100.0	100.0	92.2	86.7	81.7	73.0	66.8	62.1	57.9	50.4	40.0	32.5	Gravel	Sand	Silt	Clay
																19.2	40.5	32.5	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
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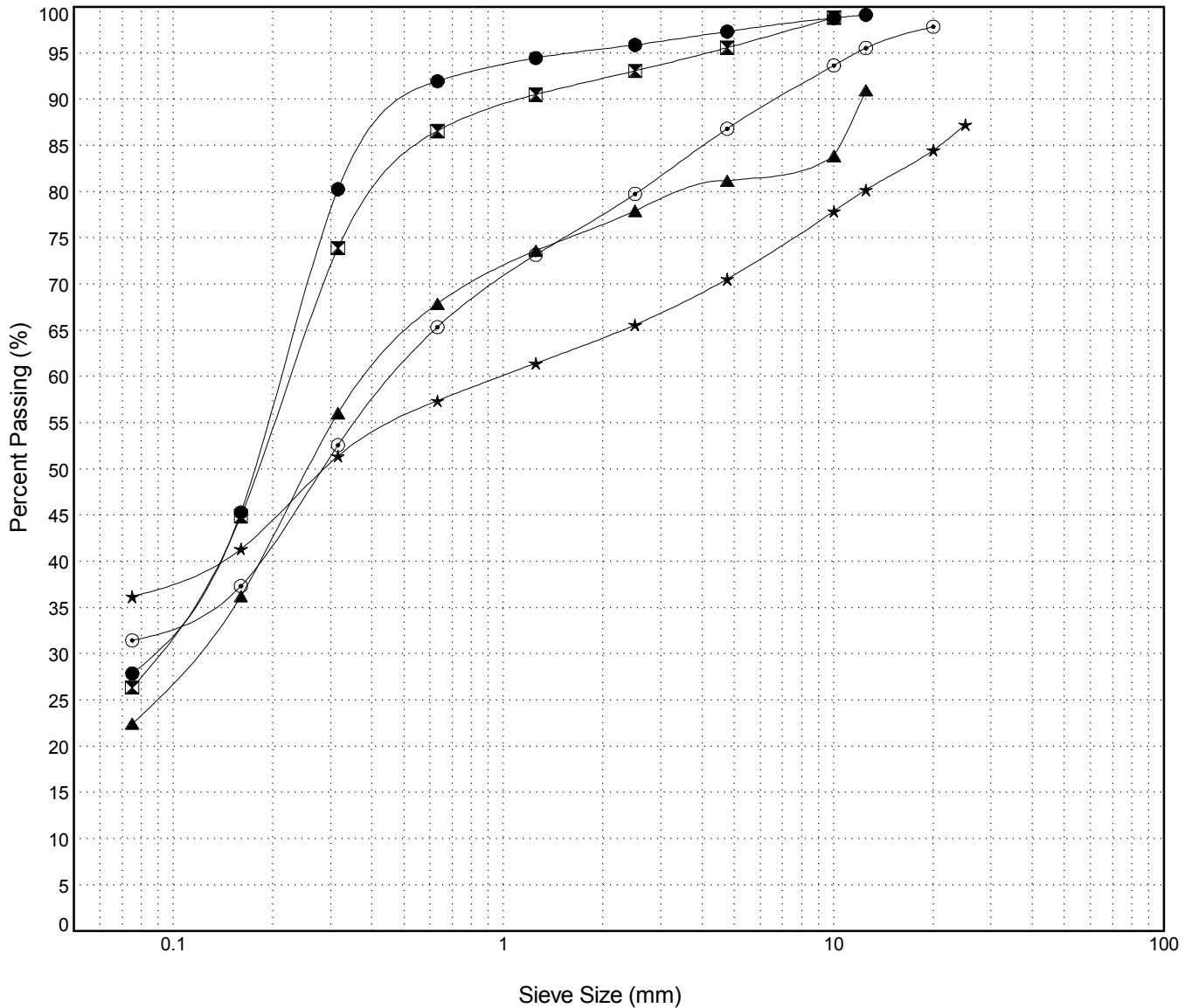
GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5110
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6663367m E565757m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 11	521	0.5 to 0.8	SILTY SAND(SM)	12.5	NP	NP	NP		
☒ 12	522	1.5 to 1.8	SILTY SAND(SM)	7.9	NP	NP	NP		
▲ 13	523	3.0 to	SILTY SAND with GRAVEL(SM)	13.4	NP	NP	NP		
★ 16	526	3.6 to 3.9	SILTY SAND with GRAVEL(SM)	12.7	NP	NP	NP		
⊙ 15	525	4.5 to 6.5	SILTY SAND(SM)	19.9	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			
		%PASSING														Gravel	Sand	Silt	Clay
● 11	521	100.0	100.0	100.0	100.0	100.0	99.1	98.8	97.3	95.9	94.5	92.0	80.3	45.3	27.9	1.8	69.4	27.9	
☒ 12	522	100.0	100.0	100.0	100.0	100.0	100.0	98.8	95.6	93.1	90.5	86.6	73.9	44.9	26.4	3.2	69.2	26.4	
▲ 13	523	100.0	100.0	100.0	100.0	100.0	91.0	83.9	81.2	77.9	73.6	67.9	56.1	36.3	22.5	9.8	58.7	22.5	
★ 16	526	100.0	100.0	100.0	87.3	84.5	80.2	77.9	70.6	65.6	61.4	57.4	51.4	41.3	36.2	16.7	34.4	36.2	
⊙ 15	525	100.0	100.0	100.0	100.0	97.9	95.5	93.7	86.8	79.8	73.2	65.4	52.6	37.3	31.5	11.0	55.4	31.5	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: J Hopkins
REVIEWED BY: R.Stilwell

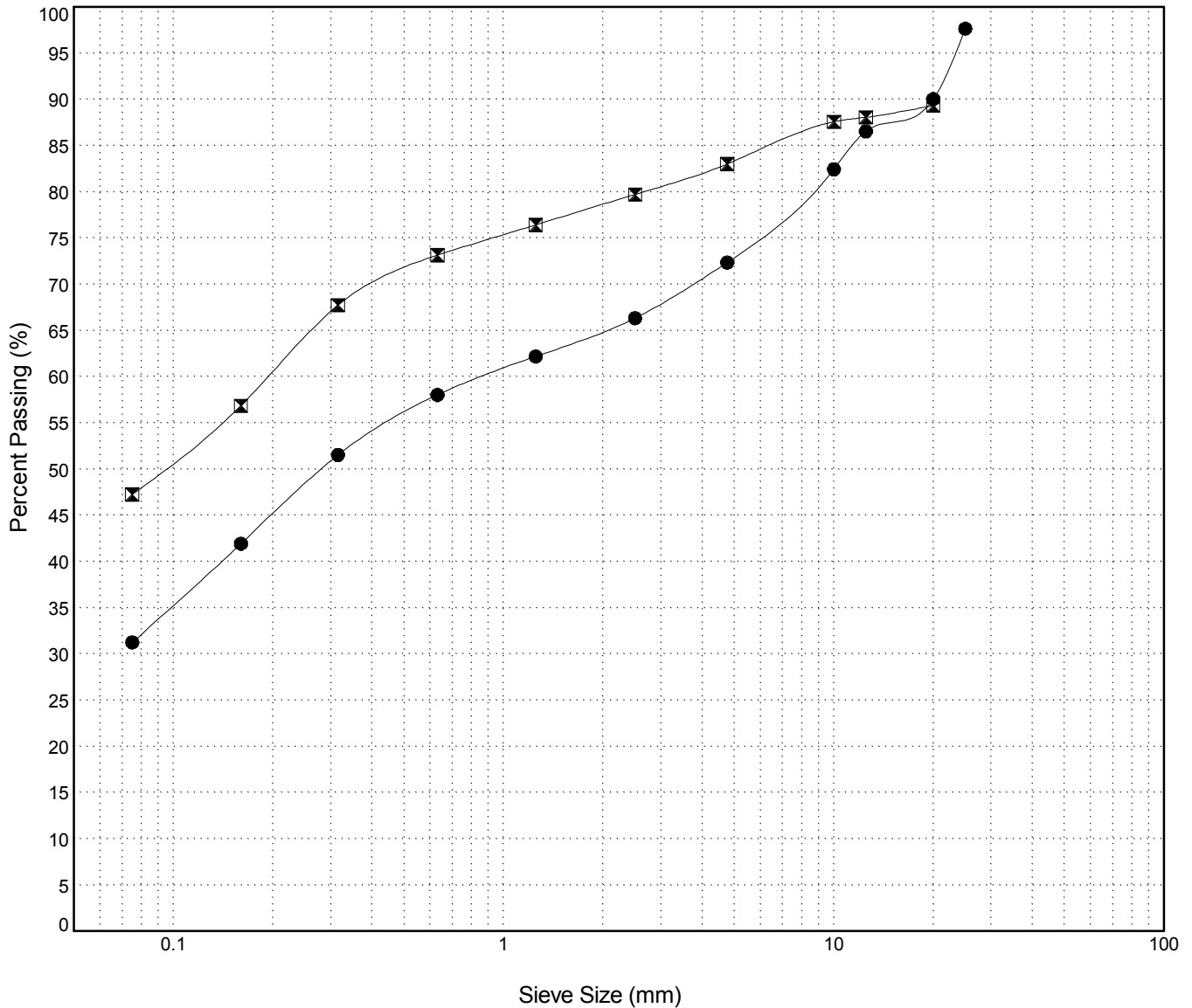
Pit #:
Complete:

GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5110
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6663367m E565757m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu										
● 17	527	7.3 to 7.6	SILTY SAND with GRAVEL(SM)	12.1	NP	NP	NP												
☒ 14	524	7.5 to 7.8	SILTY SAND with GRAVEL(SM)	10.7	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			
● 17	527	100.0	100.0	100.0	97.6	90.0	86.5	82.4	72.3	66.3	62.2	58.0	51.5	41.9	31.3	Gravel	Sand	Silt	Clay
☒ 14	524	100.0	100.0	100.0	100.0	89.3	88.1	87.6	83.0	79.7	76.4	73.1	67.7	56.9	47.3	6.3	35.8	47.3	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: J.Hopkins
REVIEWED BY: R.Stilwell

Pit #:
Complete:

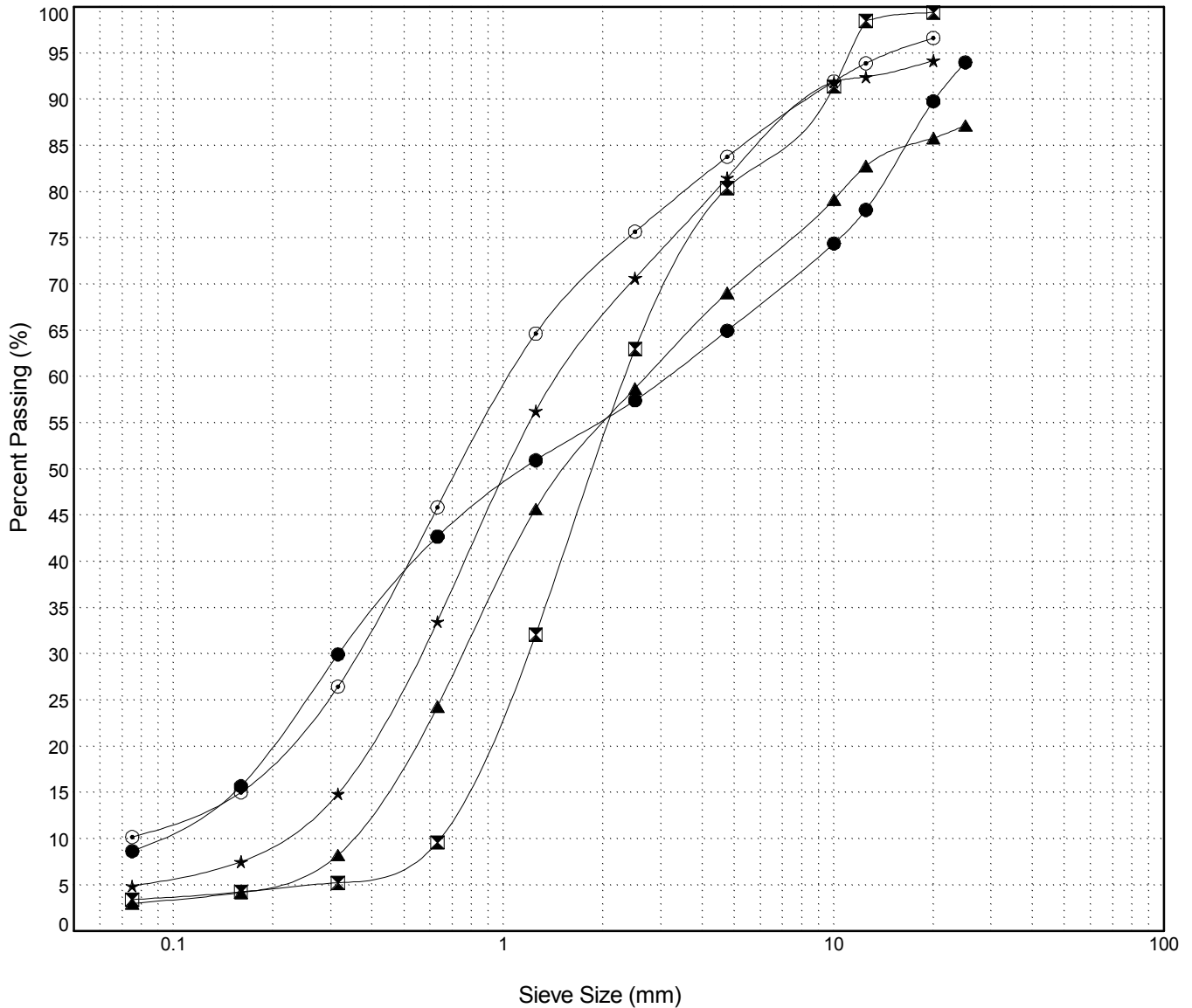
GRAIN SIZE ANALYSIS	Hwy 7 SNAFU/TARFU Bridges	SOURCE/TP#: 849-5111
Darkside Drilling	km 24.9 - 29.8	PROJECT NO: 552-202107-0121-0661-3
B61 150mm	Coordinates:Z08V N6668047m E565062m	ELEVATION: m

Master Revised July 2013

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 17B	528	1.0 to 1.3	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	4.6	NP	NP	NP	0.4	35.9
☒ 18	529	2.7 to 2.9	POORLY GRADED SAND with GRAVEL(SP)	13.7	NP	NP	NP	0.9	3.7
▲ 19	530	4.0 to 4.3	POORLY GRADED SAND with GRAVEL(SP)	11.1	NP	NP	NP	0.6	8.0
★ 20	531	6.8 to 7.1	WELL-GRADED SAND with GRAVEL(SW)	12.4	NP	NP	NP	1.0	7.4
⊙ 21	532	8.6 to 8.9	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	12.3	NP	NP	NP	1.7	14.5

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
● 17B	528	100.0	100.0	100.0	94.0	89.8	78.0	74.4	65.0	57.4	50.9	42.7	29.9	15.7	8.7	29.0	56.3	8.7	
☒ 18	529	100.0	100.0	100.0	100.0	99.4	98.5	91.4	80.4	63.0	32.1	9.6	5.2	4.2	3.4	19.0	77.0	3.4	
▲ 19	530	100.0	100.0	100.0	87.2	85.8	82.8	79.2	69.1	58.7	45.7	24.3	8.2	4.2	3.0	18.1	66.1	3.0	
★ 20	531	100.0	100.0	100.0	100.0	94.2	92.4	91.9	81.5	70.7	56.3	33.5	14.9	7.5	4.9	12.7	76.6	4.9	
⊙ 21	532	100.0	100.0	100.0	100.0	96.6	93.9	91.9	83.8	75.7	64.7	45.9	26.5	15.0	10.2	12.9	73.6	10.2	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: J.Hopkins
REVIEWED BY: R.Stilwell

Pit #:
Complete: