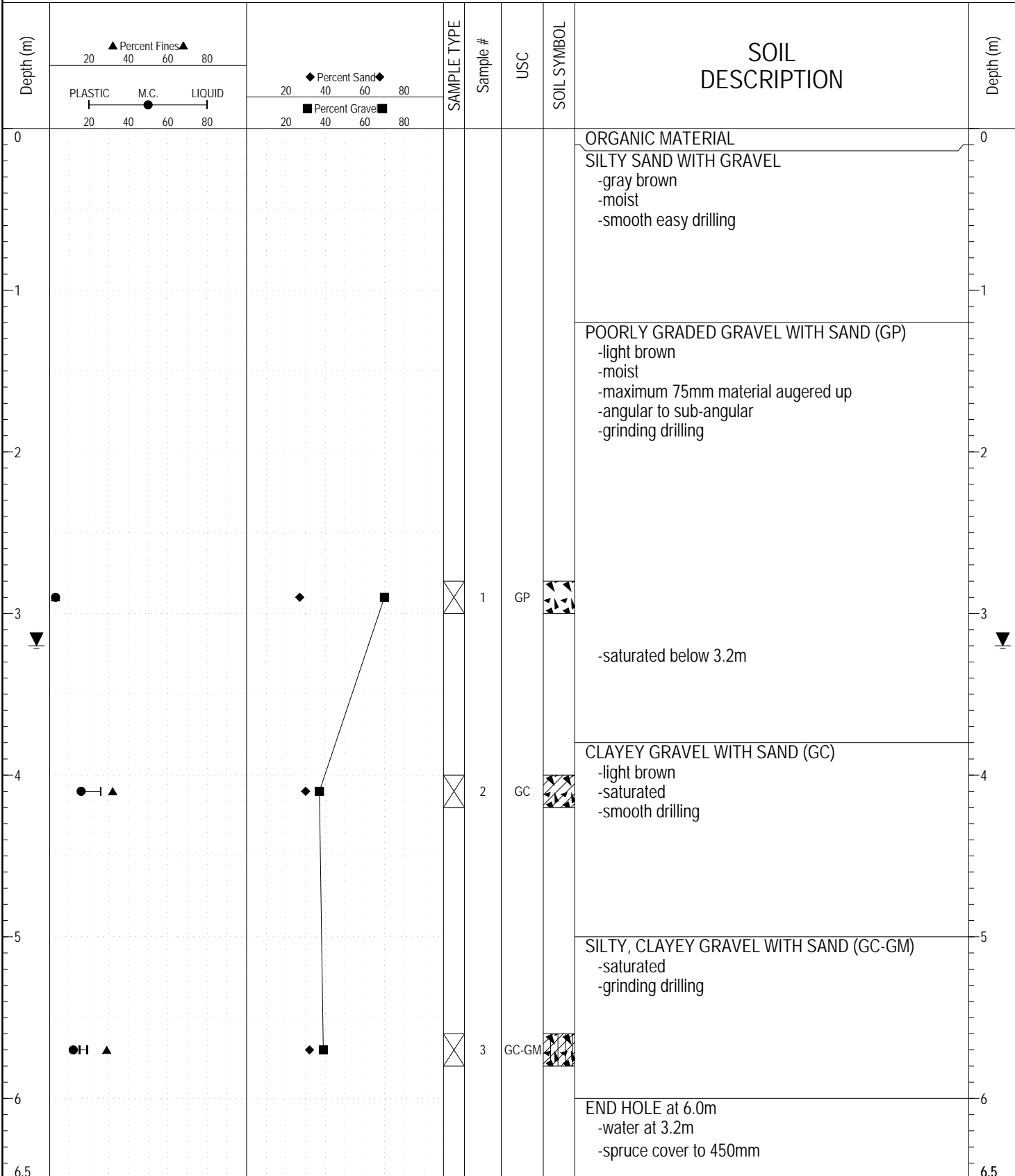


SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-01
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE  RETURN  S.P.T.  Auger  BULK  TUBE  CORE



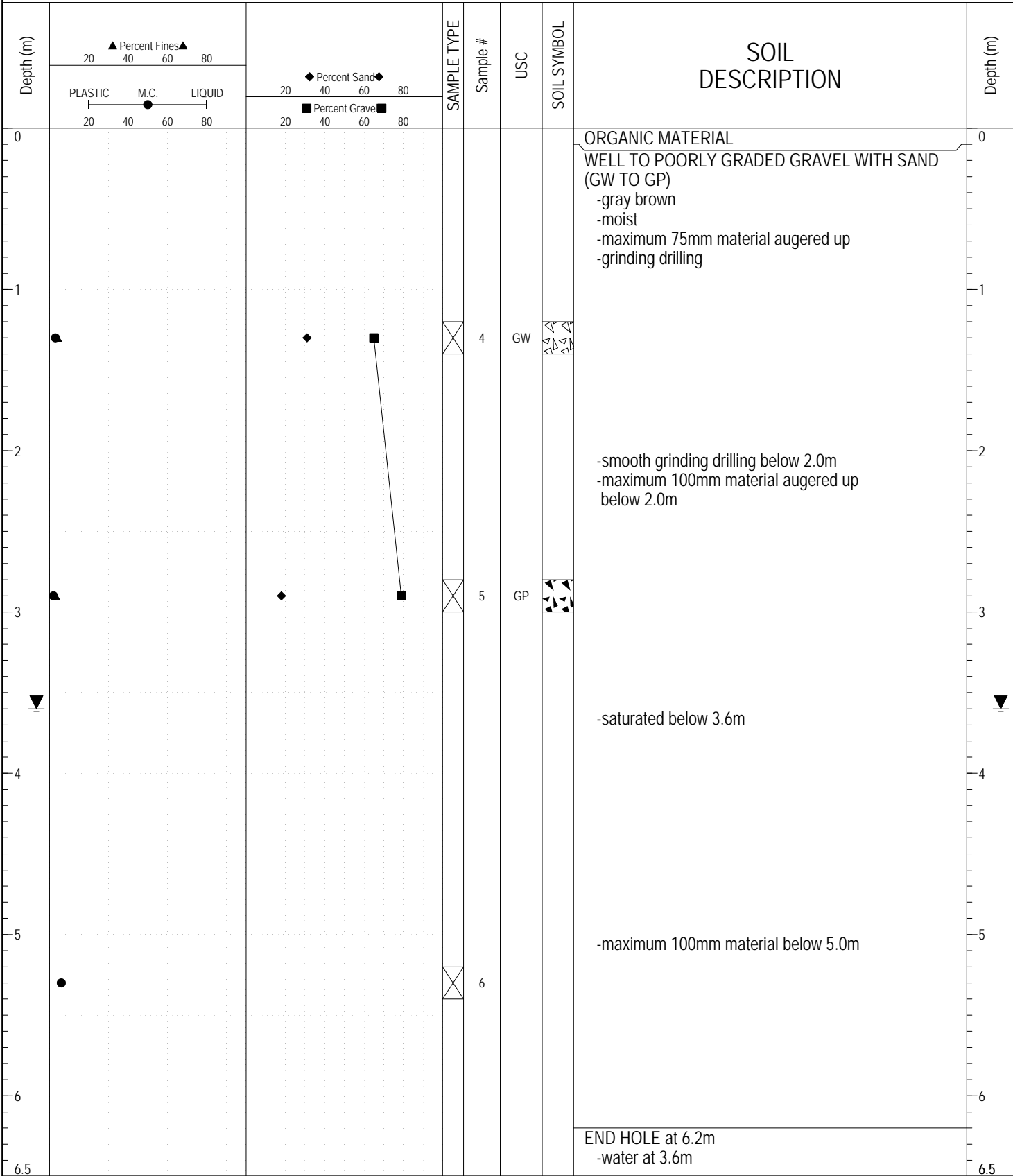
ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



Highways and Public Works  
Transportation Engineering Branch

LOGGED BY: CB	COMPLETION DEPTH: 6.00 m
REVIEWED BY:	COMPLETION DATE: 7/30/91
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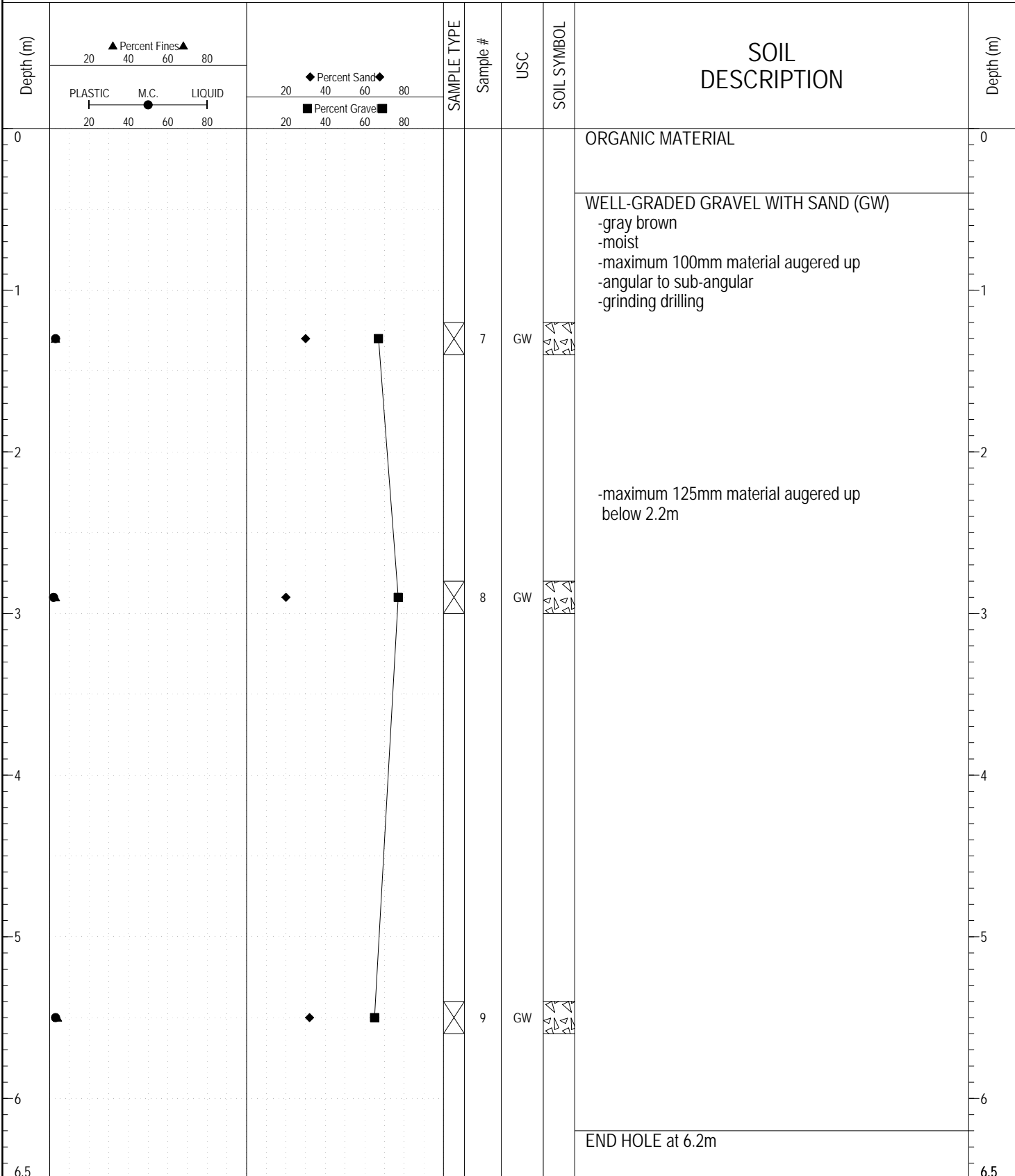
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-03
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

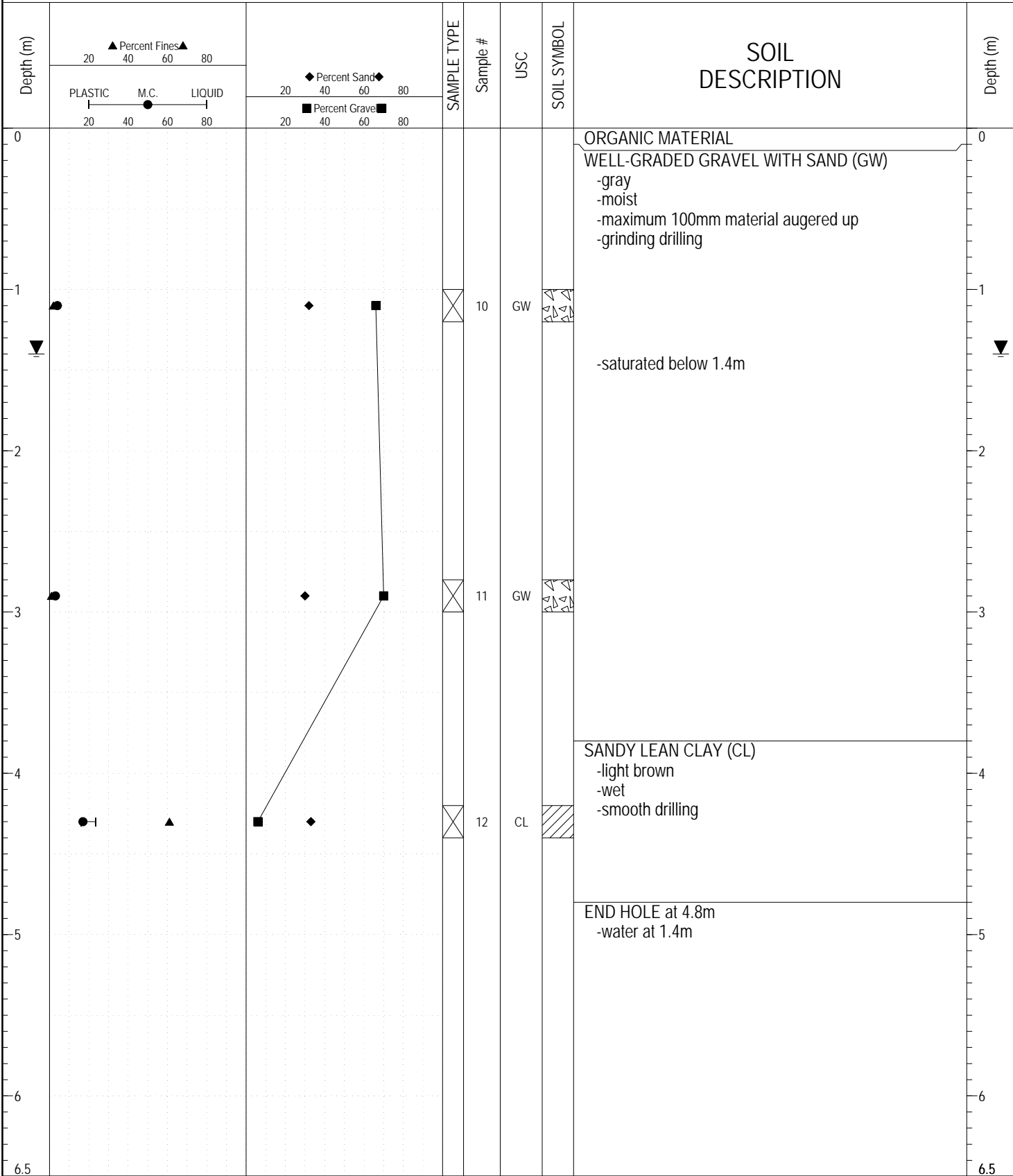


Highways and Public Works  
Transportation Engineering Branch

LOGGED BY: CB	COMPLETION DEPTH: 6.20 m
REVIEWED BY:	COMPLETION DATE: 7/30/91
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SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-04
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-05
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	▲ Percent Fines ▲		◆ Percent Sand ◆		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	20	40	60	80						
0	PLASTIC    M.C.    LIQUID 20    40    60    80		20    40    60    80 20    40    60    80						ORGANIC MATERIAL	0
									SILTY CLAY -light brown -moist	
1										1
2									END HOLE at 1.6m	2
3										3
4										4
5										5
6										6
6.5										6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



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Transportation Engineering Branch

LOGGED BY: CB	COMPLETION DEPTH: 1.60 m
REVIEWED BY:	COMPLETION DATE: 7/30/91
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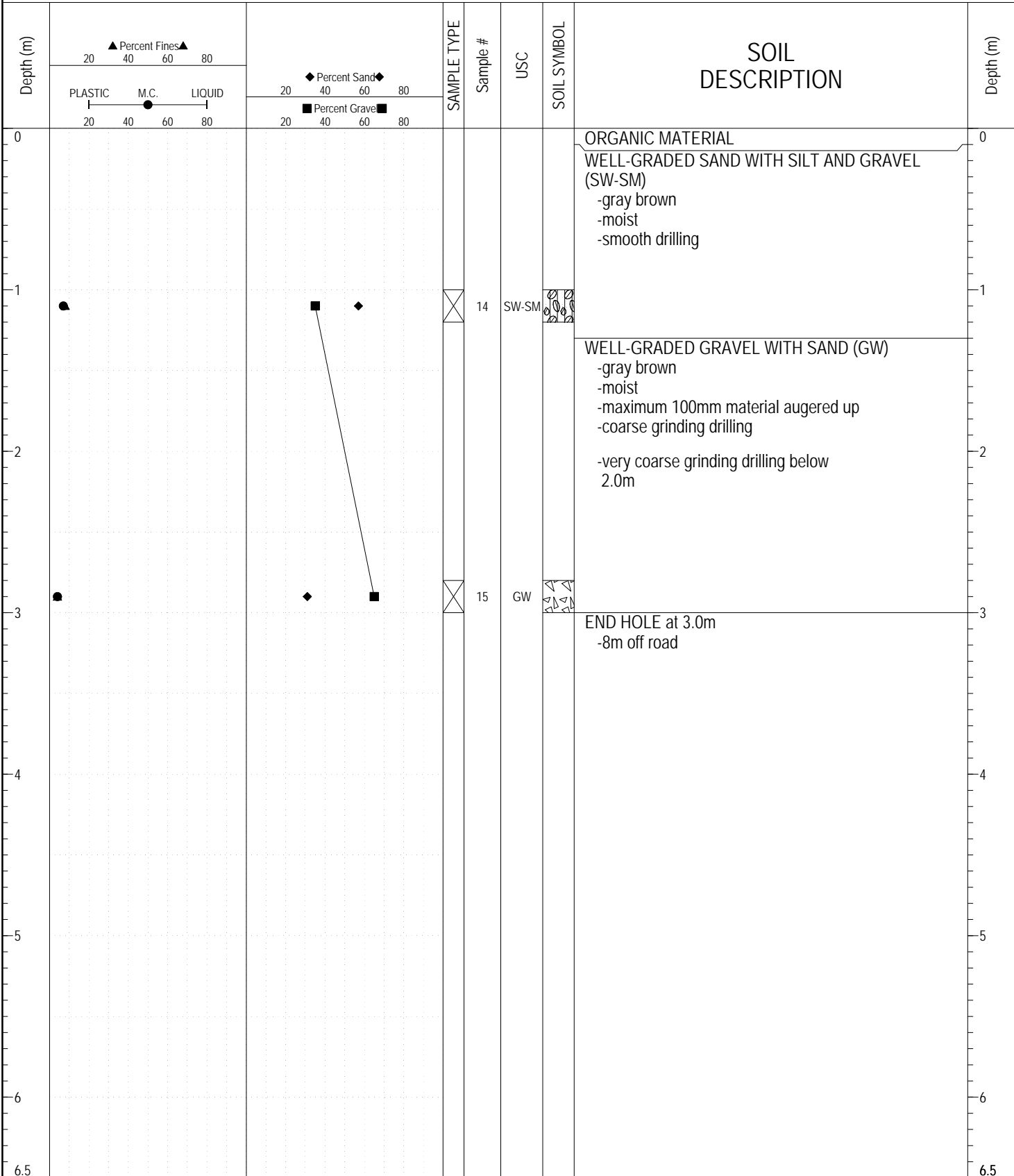
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	<div style="text-align: center;">▲ Percent Fines ▲</div> <div style="text-align: center;">20    40    60    80</div> <div style="text-align: center;">PLASTIC    M.C.    LIQUID</div> <div style="text-align: center;">20    40    60    80</div>	<div style="text-align: center;">◆ Percent Sand ◆</div> <div style="text-align: center;">20    40    60    80</div> <div style="text-align: center;">■ Percent Gravel ■</div> <div style="text-align: center;">20    40    60    80</div>	SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
0							ORGANIC MATERIAL	0
1				X	13		SILTY GRAVEL -gray brown -moist -maximum 100mm material augered up -coarse grinding drilling	1
2							-very coarse grinding drilling below 2.0m	2
3								3
4								4
5								5
6								6
6.5							END HOLE at 4.5m	6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-07
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE  RETURN  S.P.T.  Auger  BULK  TUBE  CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



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Transportation Engineering Branch

LOGGED BY: CB	COMPLETION DEPTH: 3.00 m
REVIEWED BY:	COMPLETION DATE: 7/30/91
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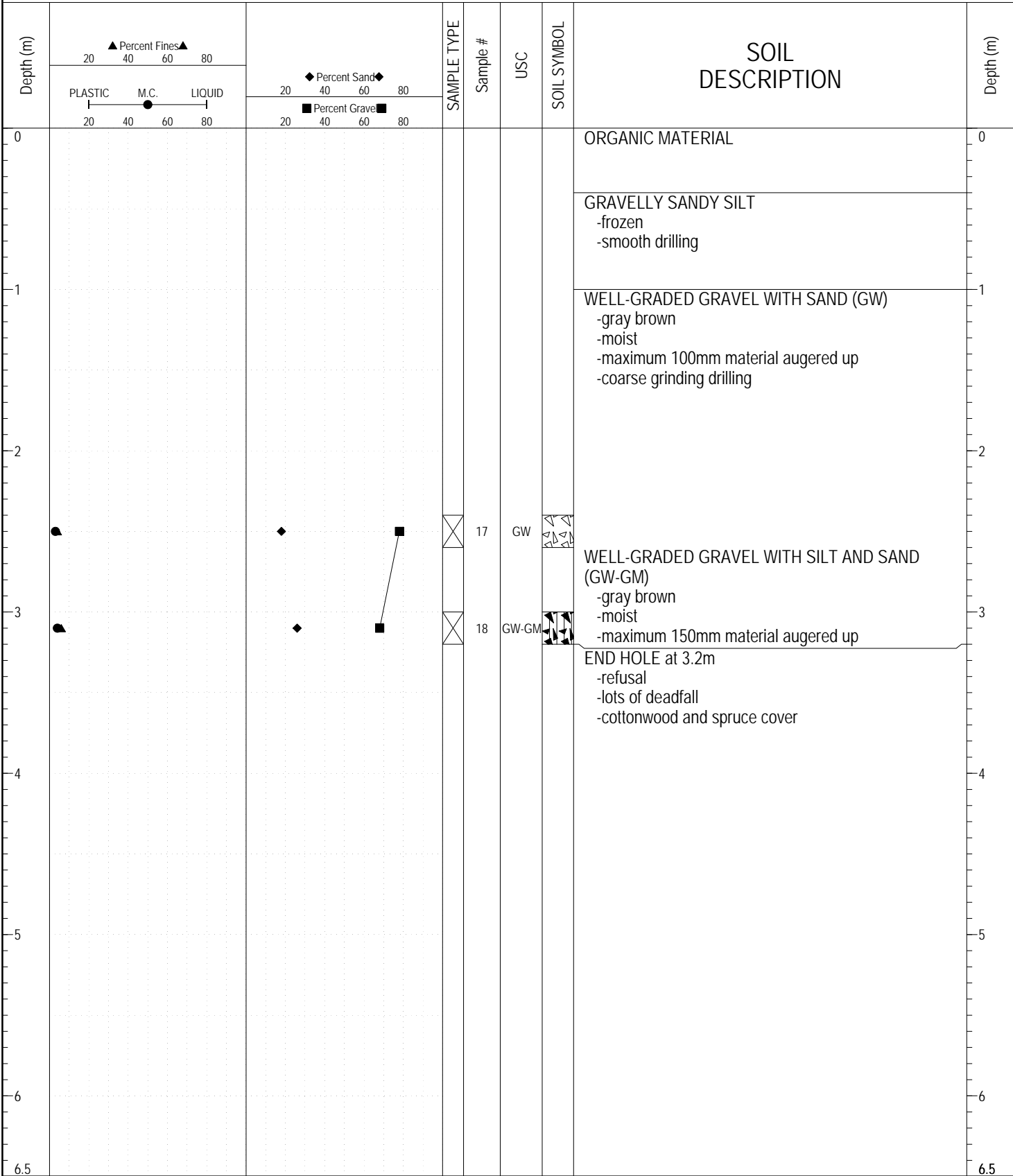
SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-08
SHAKWAK PROJECT	115K-05	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	▲ Percent Fines ▲ 20    40    60    80		◆ Percent Sand ◆ 20    40    60    80		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	PLASTIC    M.C.    LIQUID 20    40    60    80		■ Percent Gravel ■ 20    40    60    80							
0									ORGANIC MATERIAL	0
1	●		■	◆	<input checked="" type="checkbox"/>	16	SM		SILTY SAND WITH GRAVEL (SM) -gray brown -moist -smooth drilling	1
3									END HOLE at 3.0m	3
6.5										6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

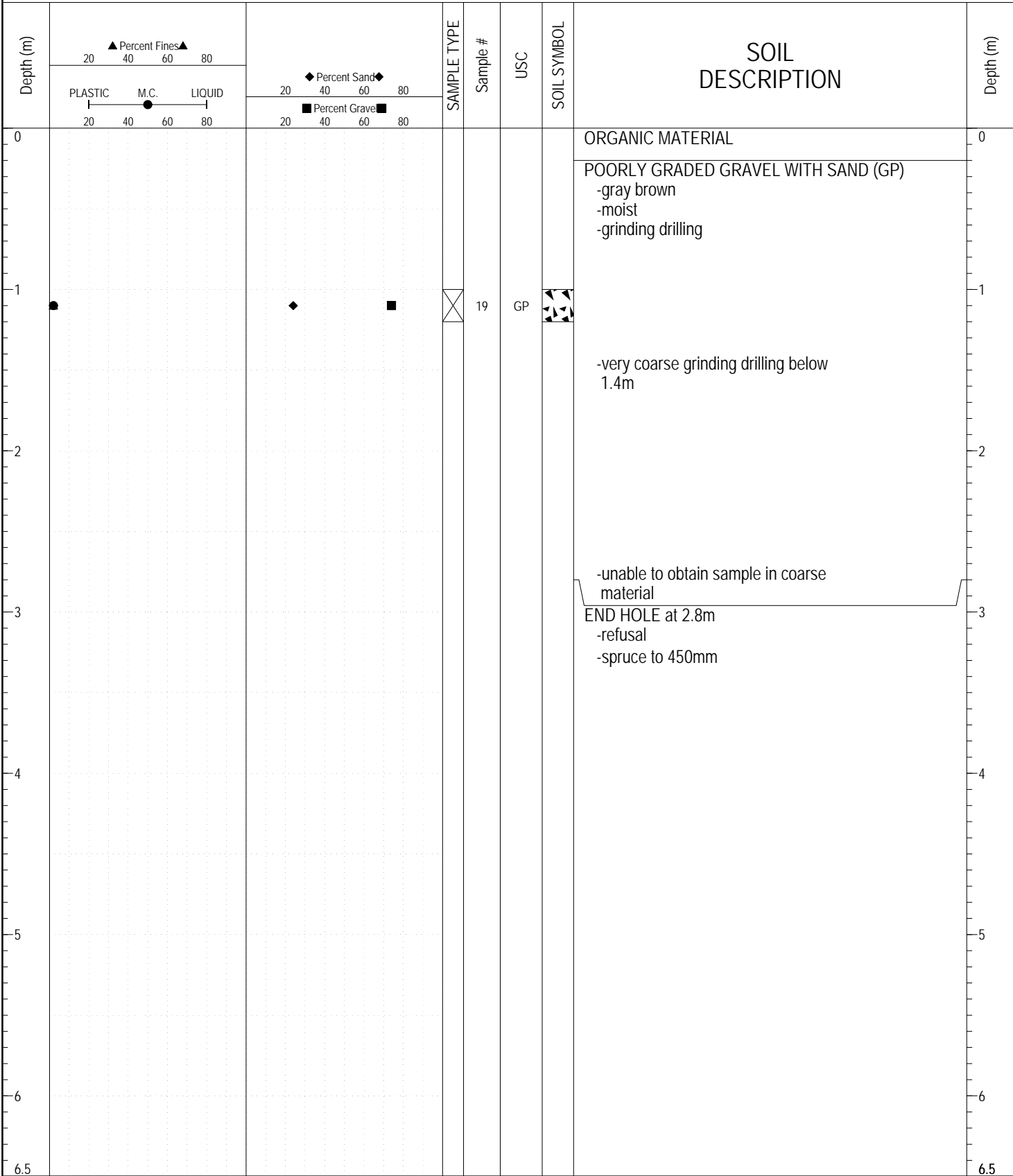
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-10
SHAKWAK PROJECT	A/H KM 1901 LHS	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-11
SHAKWAK PROJECT	A/H KM 1901 LHS	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

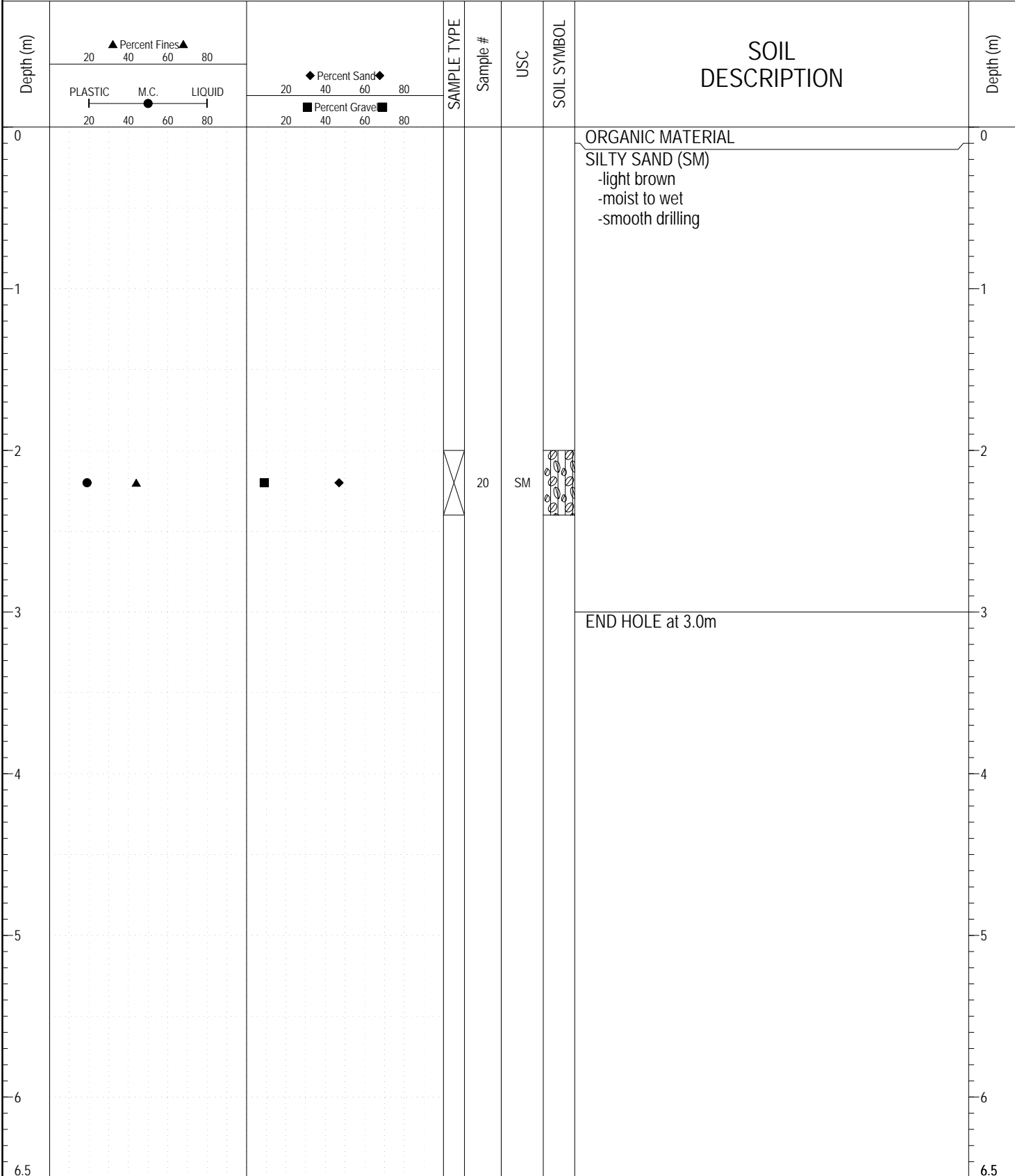
SAMPLE TYPE  RETURN  S.P.T.  Auger  BULK  TUBE  CORE

Depth (m)	▲ Percent Fines ▲		◆ Percent Sand ◆		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	20	40	60	80						
0	PLASTIC M.C. LIQUID								ORGANIC MATERIAL	0
1									SANDY SILT -light brown -wet -trace of clay -smooth drilling	1
2									GRAVEL WITH SAND -gray brown -moist -maximum 150mm material augered up -very coarse grinding drilling -unable to obtain sample	2
3										3
4									END HOLE at 3.5m -refusal -spruce to 500mm	4
5										5
6										6
6.5										6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-12
SHAKWAK PROJECT	A/H KM 1901 LHS	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



Highways and Public Works  
Transportation Engineering Branch

LOGGED BY: CB	COMPLETION DEPTH: 3.00 m
REVIEWED BY:	COMPLETION DATE: 7/31/91
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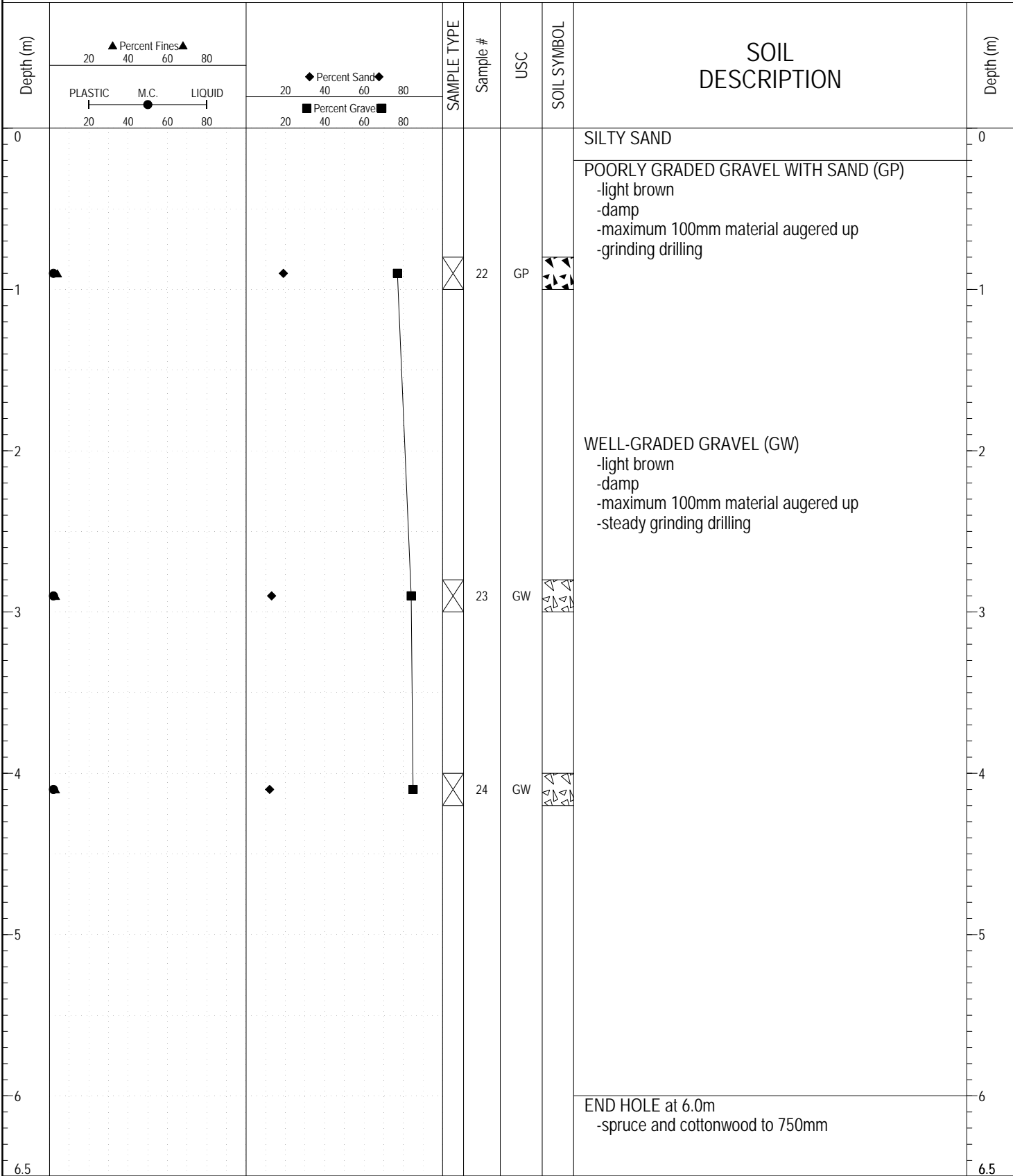
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	<div style="text-align: center;">▲ Percent Fines ▲</div> <div style="text-align: center;">20    40    60    80</div> <div style="text-align: center;">PLASTIC    M.C.    LIQUID</div> <div style="text-align: center;">20    40    60    80</div>	<div style="text-align: center;">◆ Percent Sand ◆</div> <div style="text-align: center;">20    40    60    80</div> <div style="text-align: center;">■ Percent Gravel ■</div> <div style="text-align: center;">20    40    60    80</div>	SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
0							ORGANIC MATERIAL	0
							SANDY SILT -light brown -frozen Nbn -smooth drilling	1
							POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) -gray brown -moist -maximum 100mm material augered up -coarse grinding drilling	2
	▲	◆	X	21	GP-GM			
							SANDY SILT -gray brown -moist -cobbles -smooth drilling	3
							END HOLE at 4.5m -spruce and cottonwood to 750mm	6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-14
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE  RETURN  S.P.T.  Auger  BULK  TUBE  CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-15
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	▲ Percent Fines ▲		◆ Percent Sand ◆		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	20	40	60	80						
0	PLASTIC    M.C.    LIQUID								ORGANIC MATERIAL	0
0									SILT	
0									POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)	
0									-light brown	
0									-moist	
0									-grinding drilling	
1					<input checked="" type="checkbox"/>	25	GP-GM			1
2									END HOLE at 2.0m	2
2									-refusal	
2									-water at 2.0m	
2									-on telephone line	
3										3
4										4
5										5
6										6
6.5										6.5

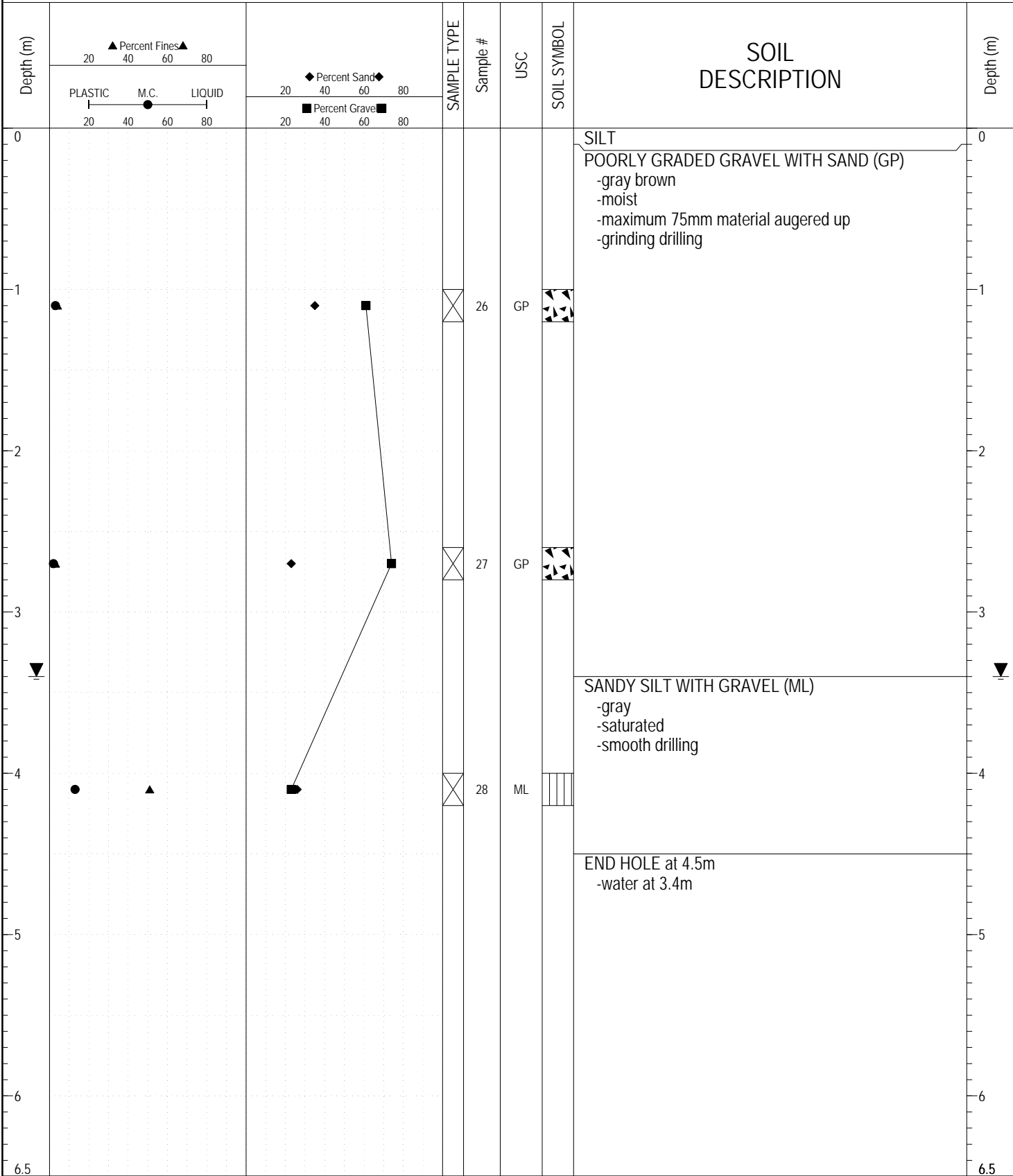
ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



Highways and Public Works  
Transportation Engineering Branch

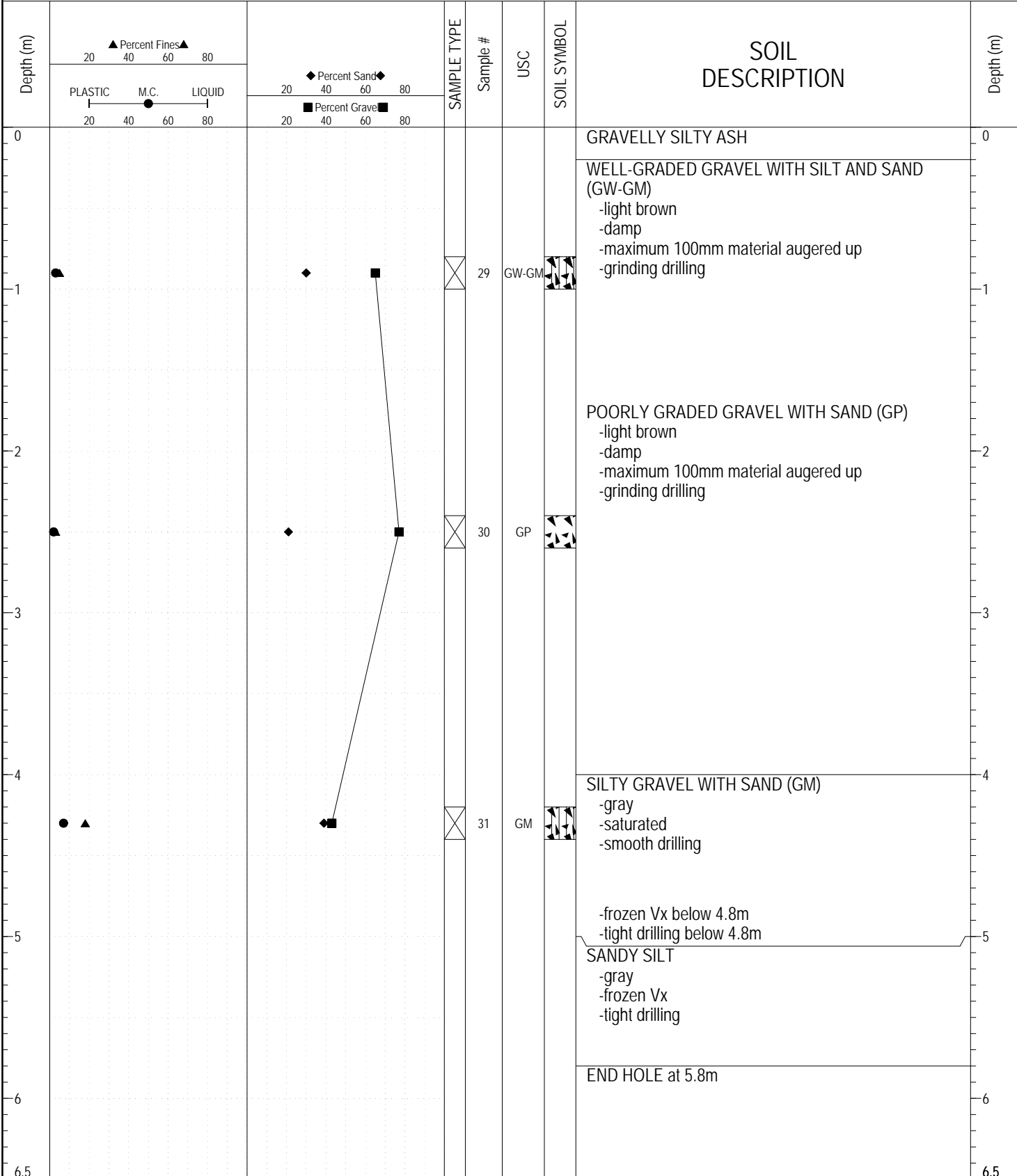
LOGGED BY: CB	COMPLETION DEPTH: 2.00 m
REVIEWED BY:	COMPLETION DATE: 7/31/91
	Page 1 of 1

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



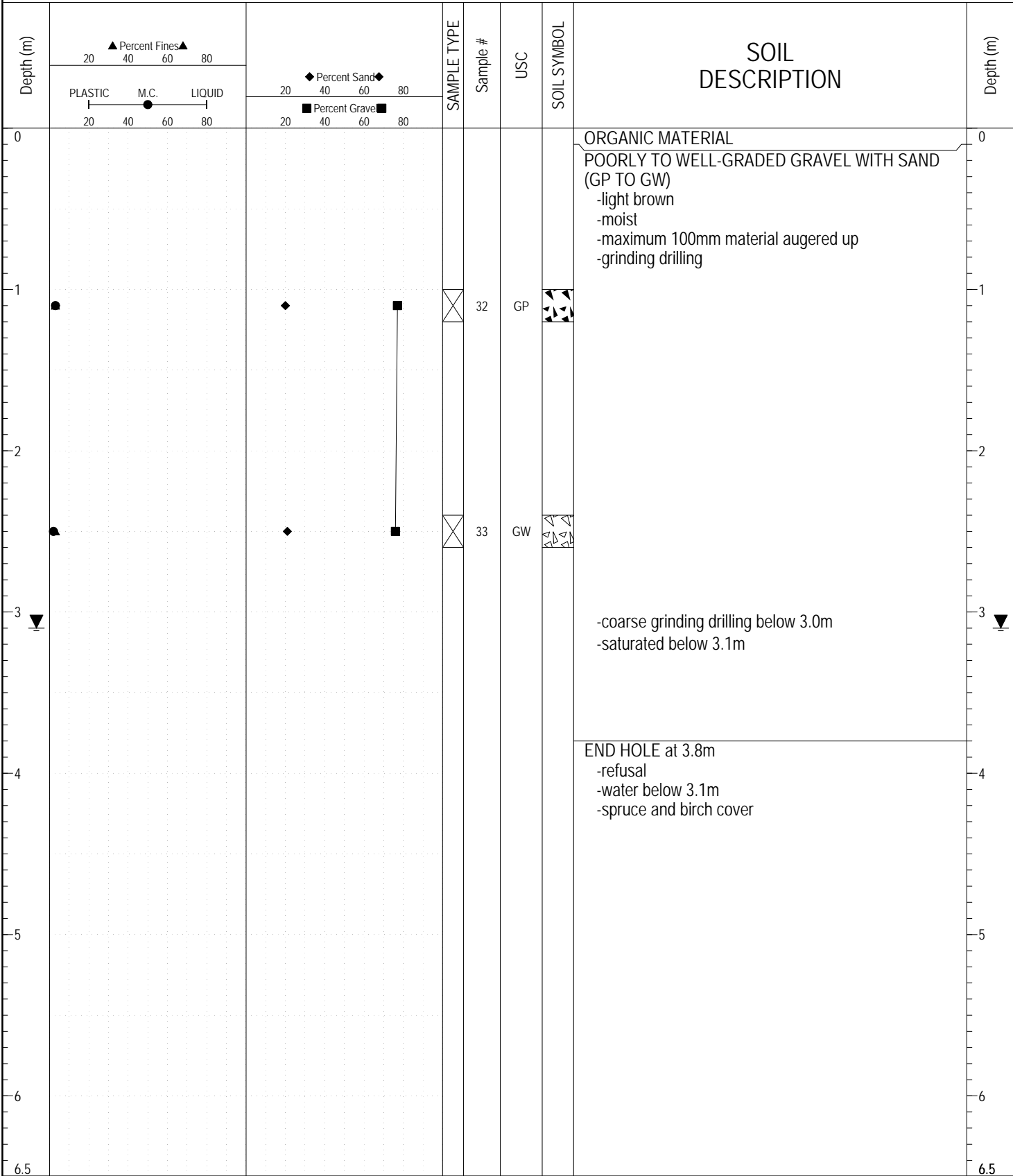
ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

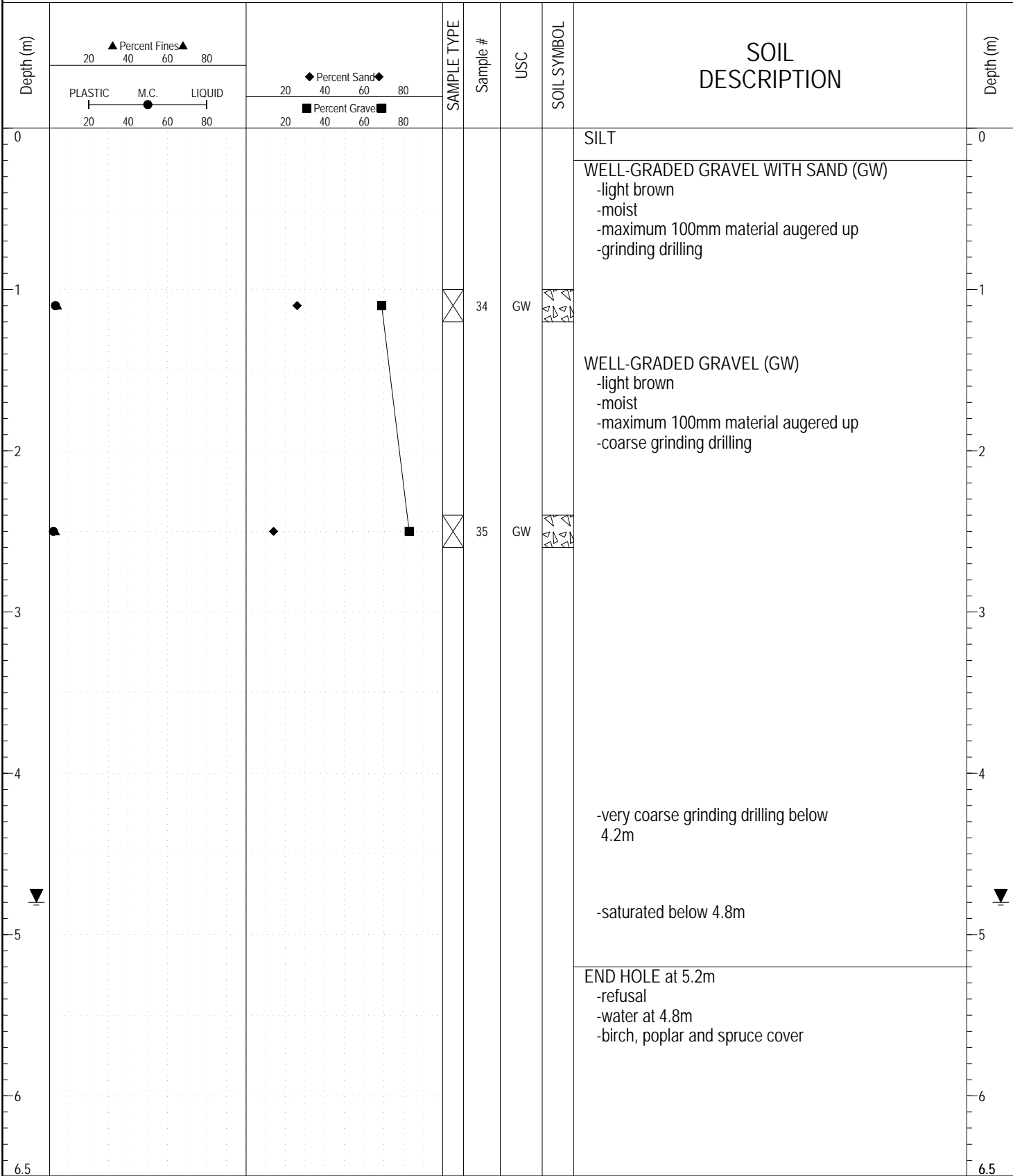
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-19
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

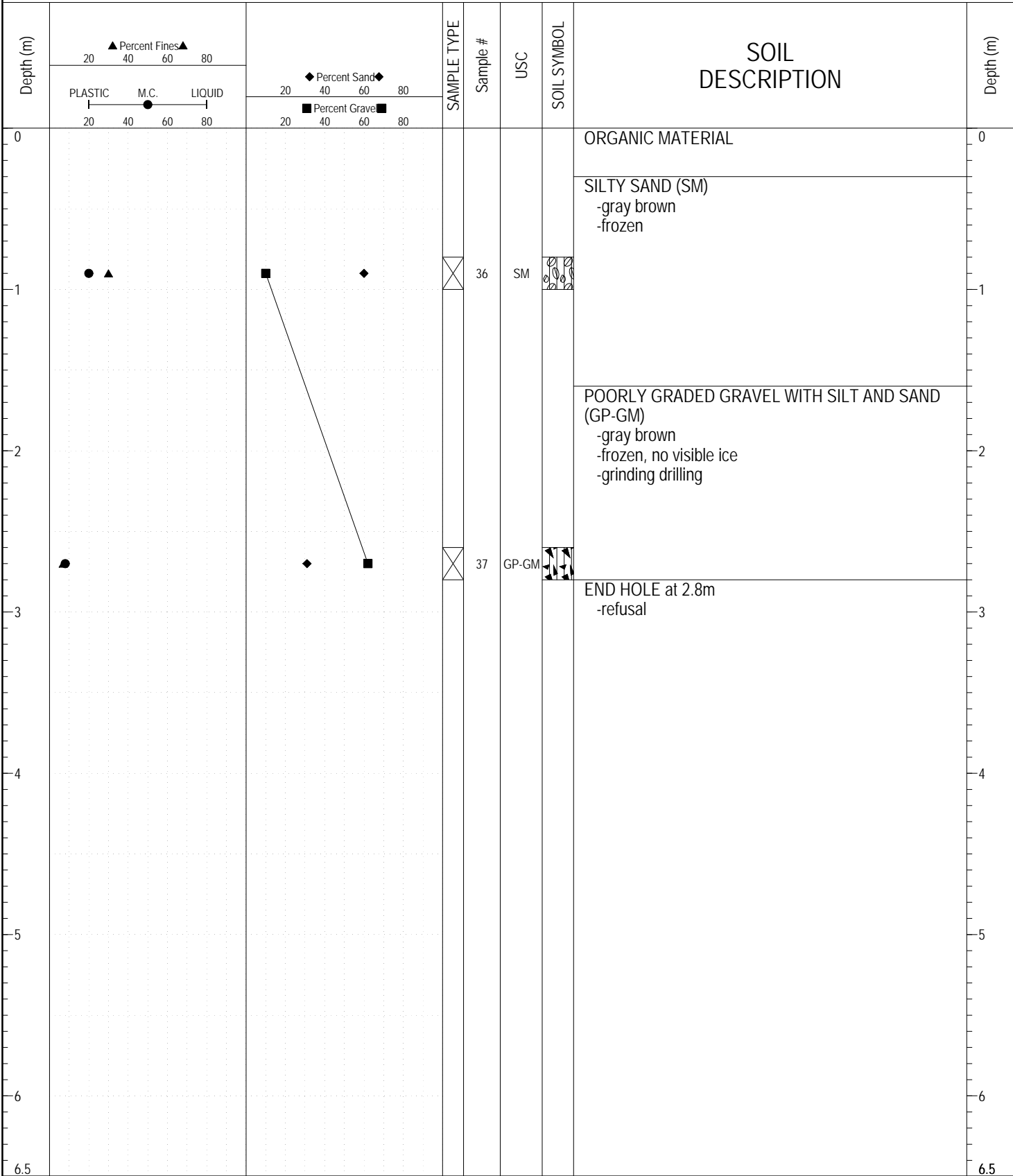
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-20
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

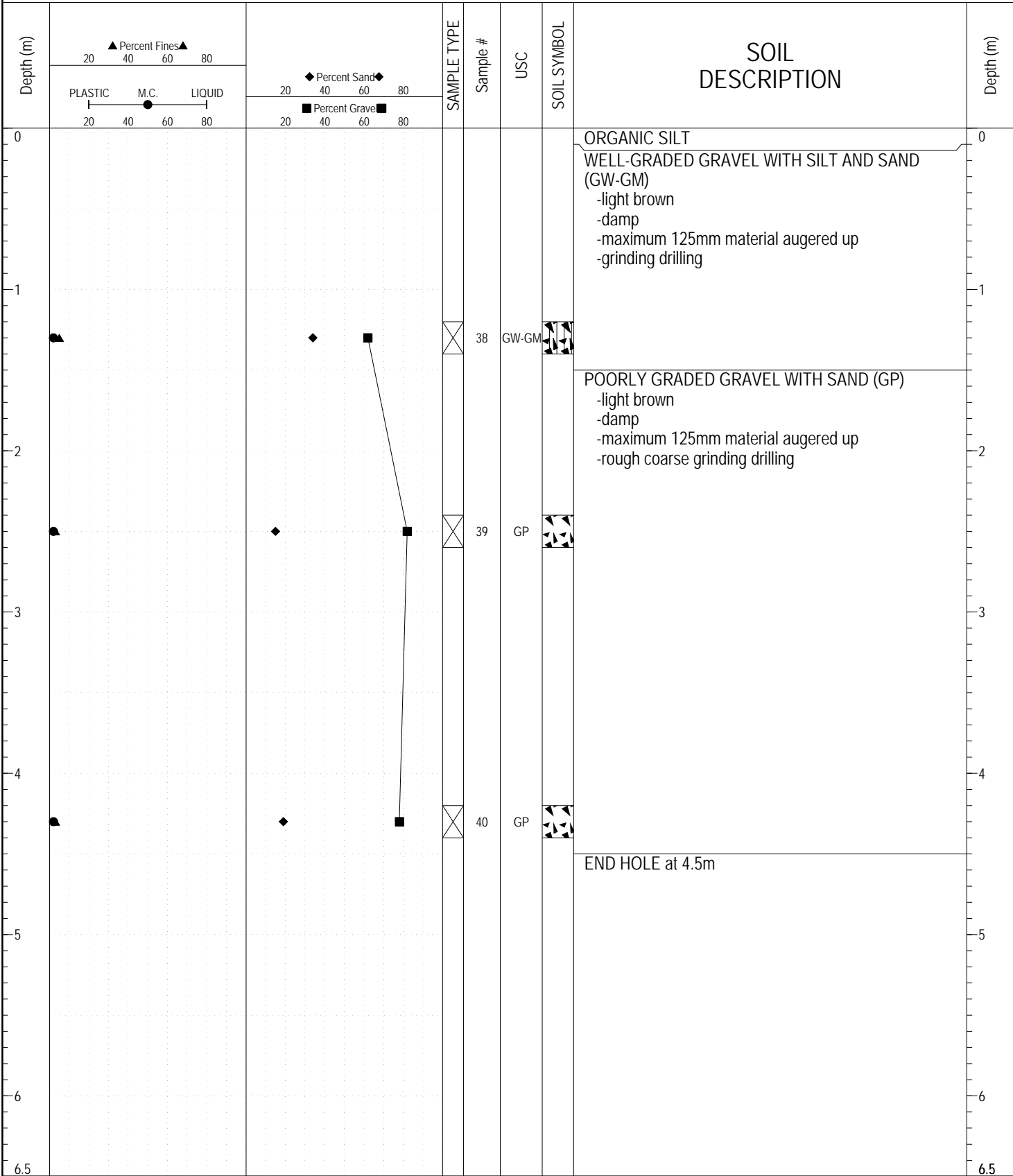
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-21
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

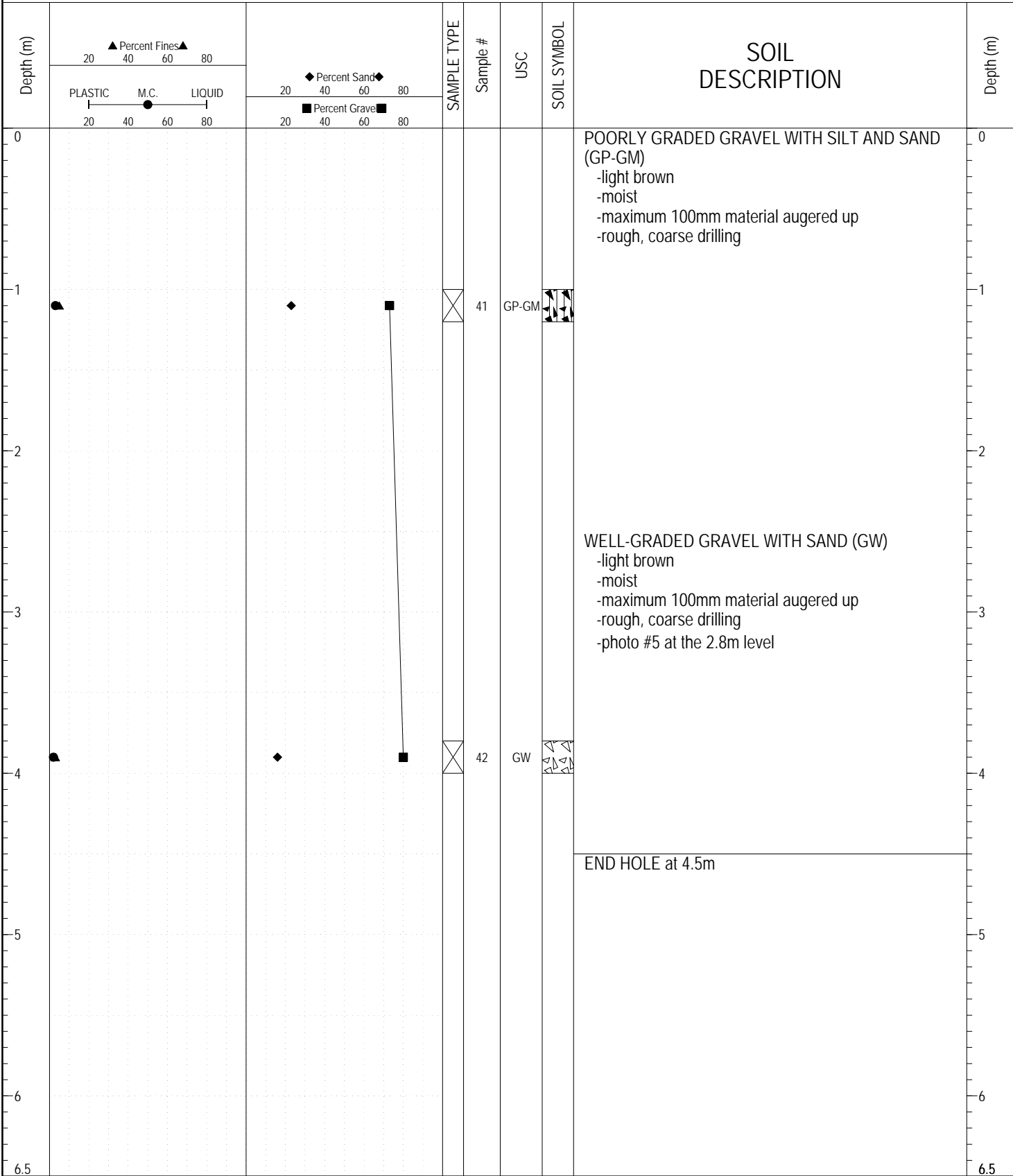
SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-22
SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

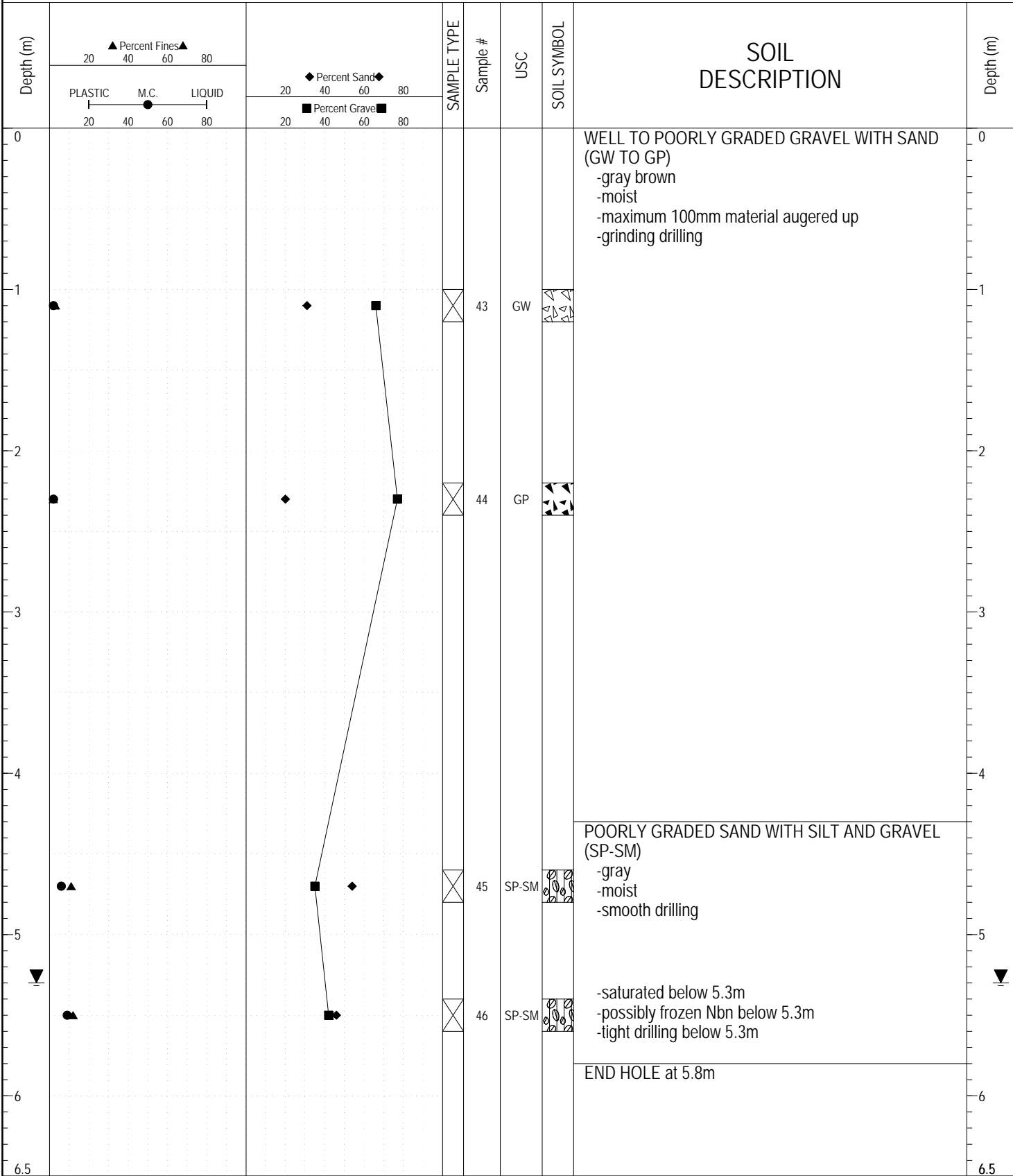
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ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

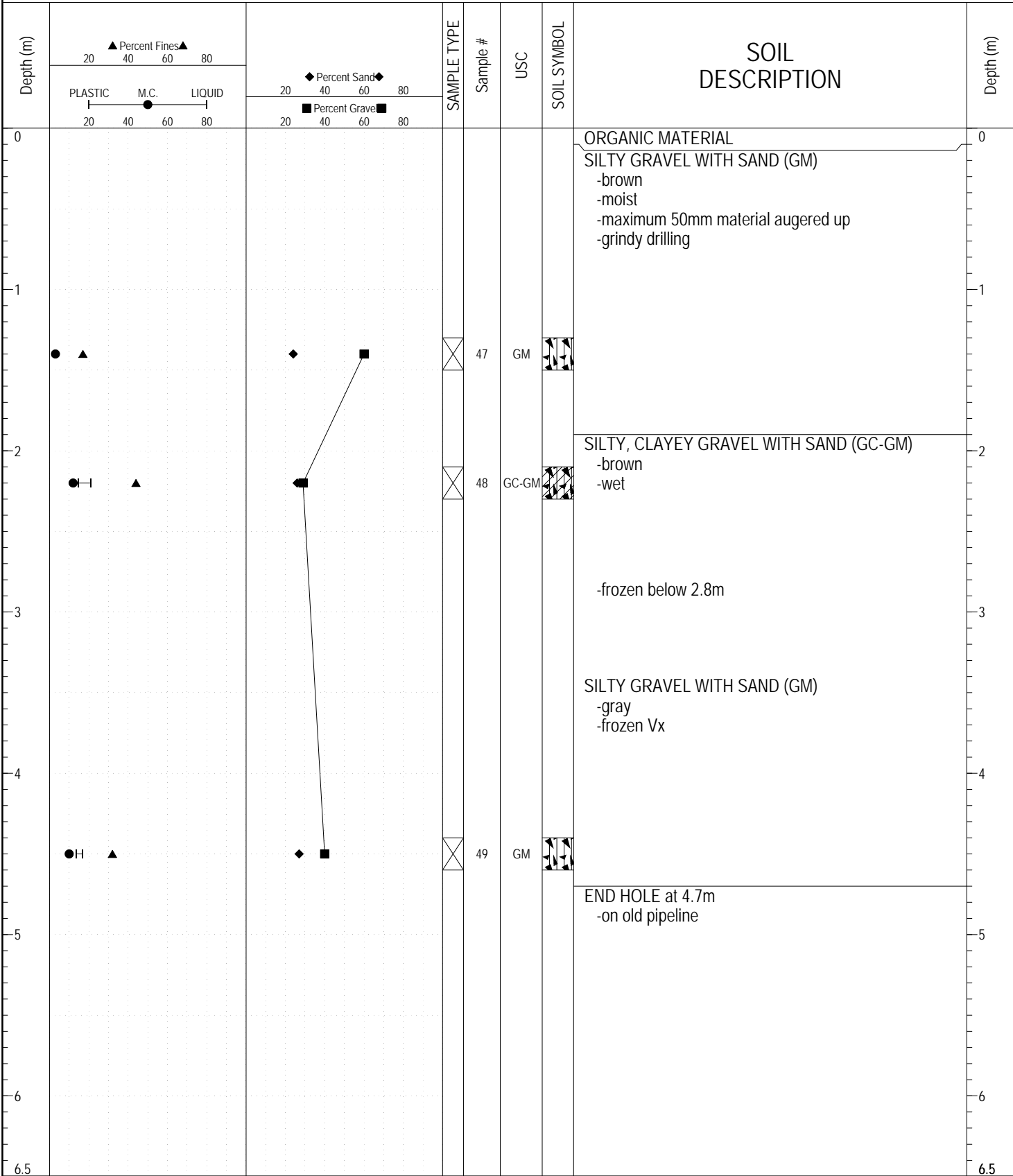
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SHAKWAK PROJECT	115K-03	PROJECT NO: SEGMENT 17
DRILL: B30H 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



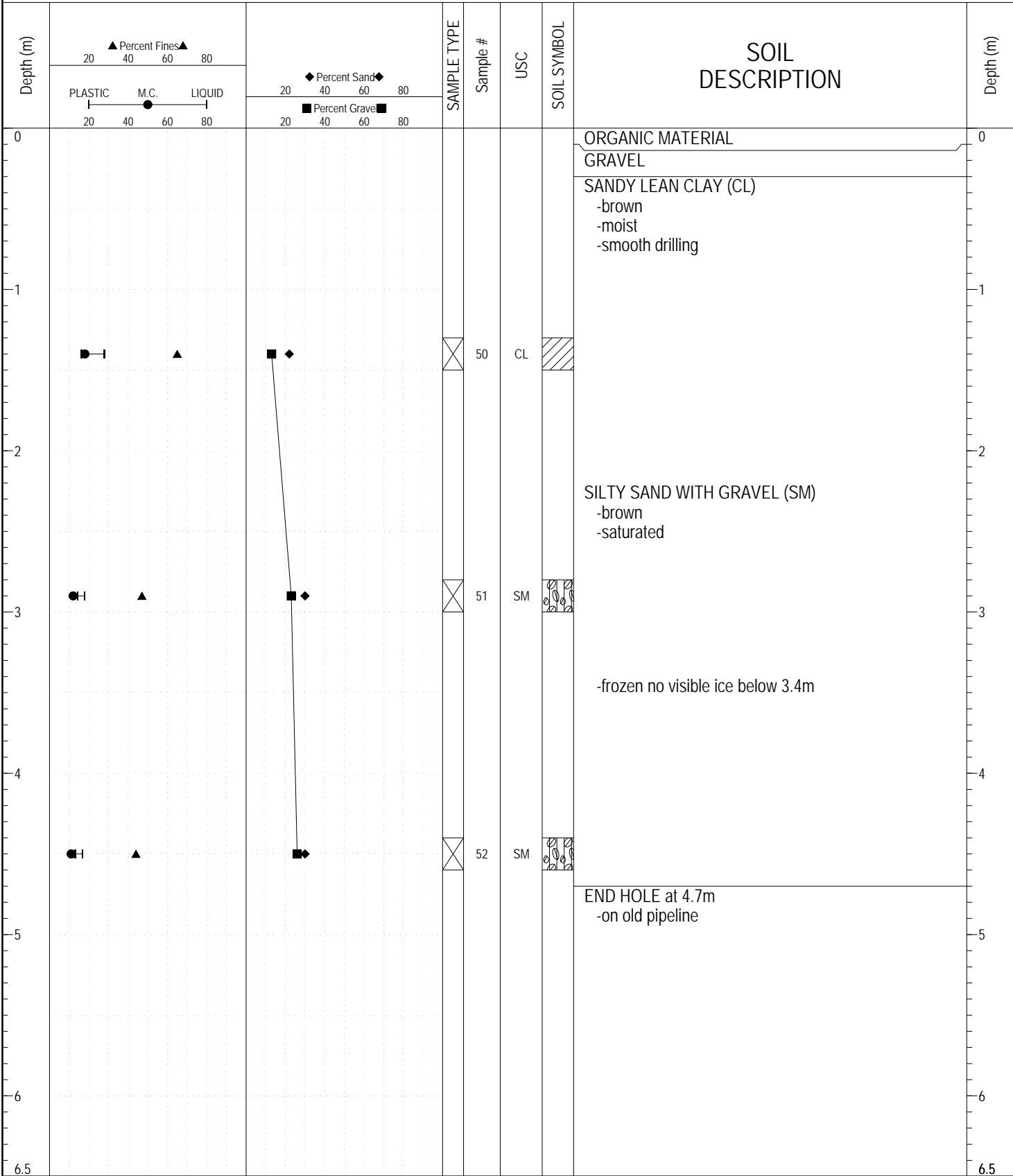
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SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



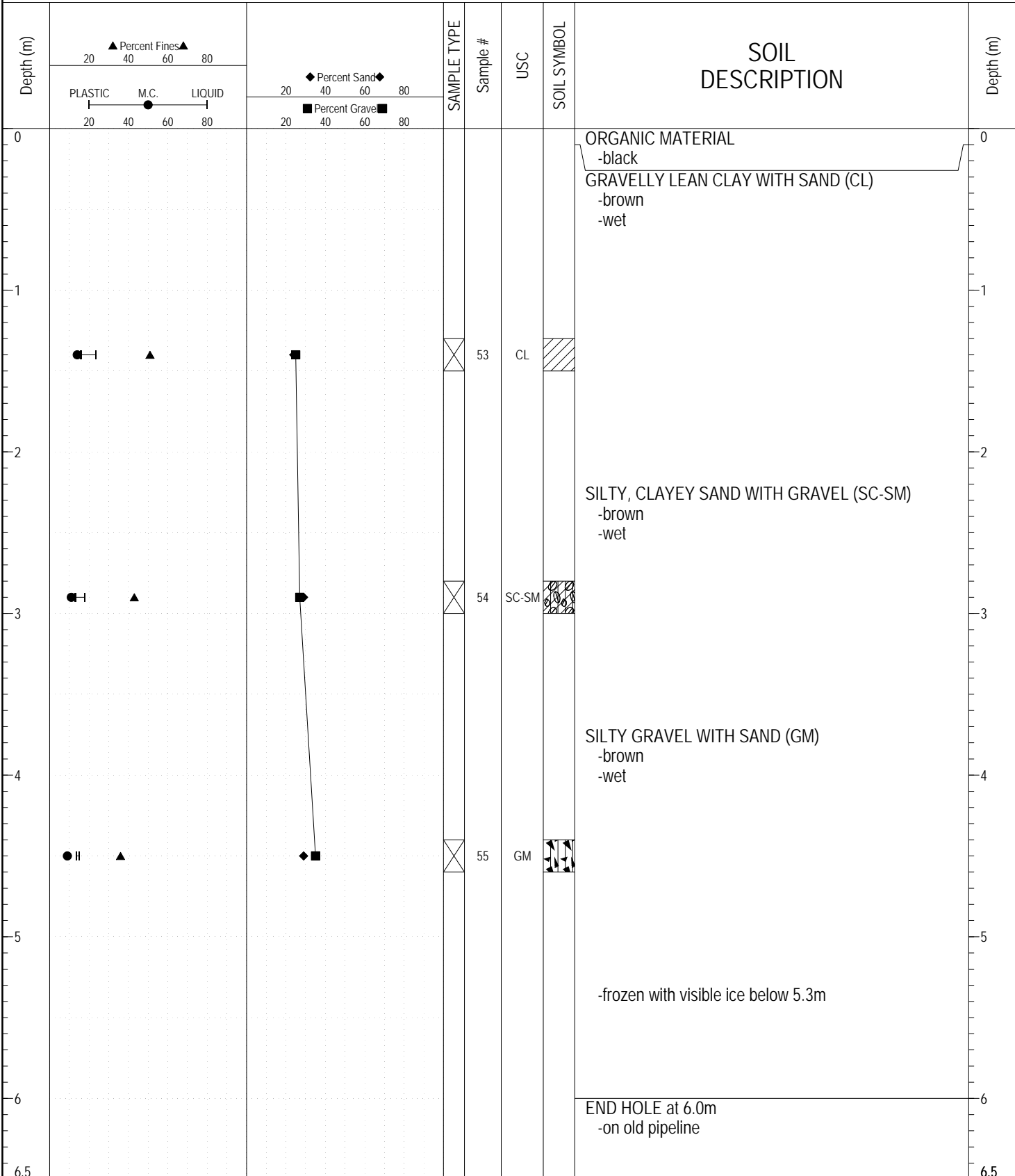
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SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-27
SHAKWAK PROJECT	A/H KM 1903 RHS	PROJECT NO: SEGMENT 17
DRILL: B40L 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE  RETURN  S.P.T.  Auger  BULK  TUBE  CORE

Depth (m)	▲ Percent Fines ▲ 20 40 60 80		◆ Percent Sand ◆ 20 40 60 80		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 20 40 60 80		■ Percent Gravel ■ 20 40 60 80							
0									ORGANIC MATERIAL	0
									POORLY GRADED GRAVEL WITH SILT AND SAND -brown -moist -maximum 50mm material augered up -grindy drilling	
1										
						56	GP		-lost most of fines retrieving sample  -first refusal at 1.6m	
2									END HOLE at 1.8m -refusal -rock dust on bit	2
3										3
4										4
5										5
6										6
6.5										6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-28
SHAKWAK PROJECT	A/H KM 1903 RHS	PROJECT NO: SEGMENT 17
DRILL: B40L 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	▲ Percent Fines ▲		◆ Percent Sand ◆		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	20	40	60	80						
0	PLASTIC    M.C.    LIQUID 20    40    60    80		20    40    60    80 20    40    60    80						ORGANIC MATERIAL	0
									GRAVEL WITH SILT AND SAND -grindy drilling	1
1									END HOLE at 1.1m -refusal -rock dust on bit	1.1
2										2
3										3
4										4
5										5
6										6
6.5										6.5

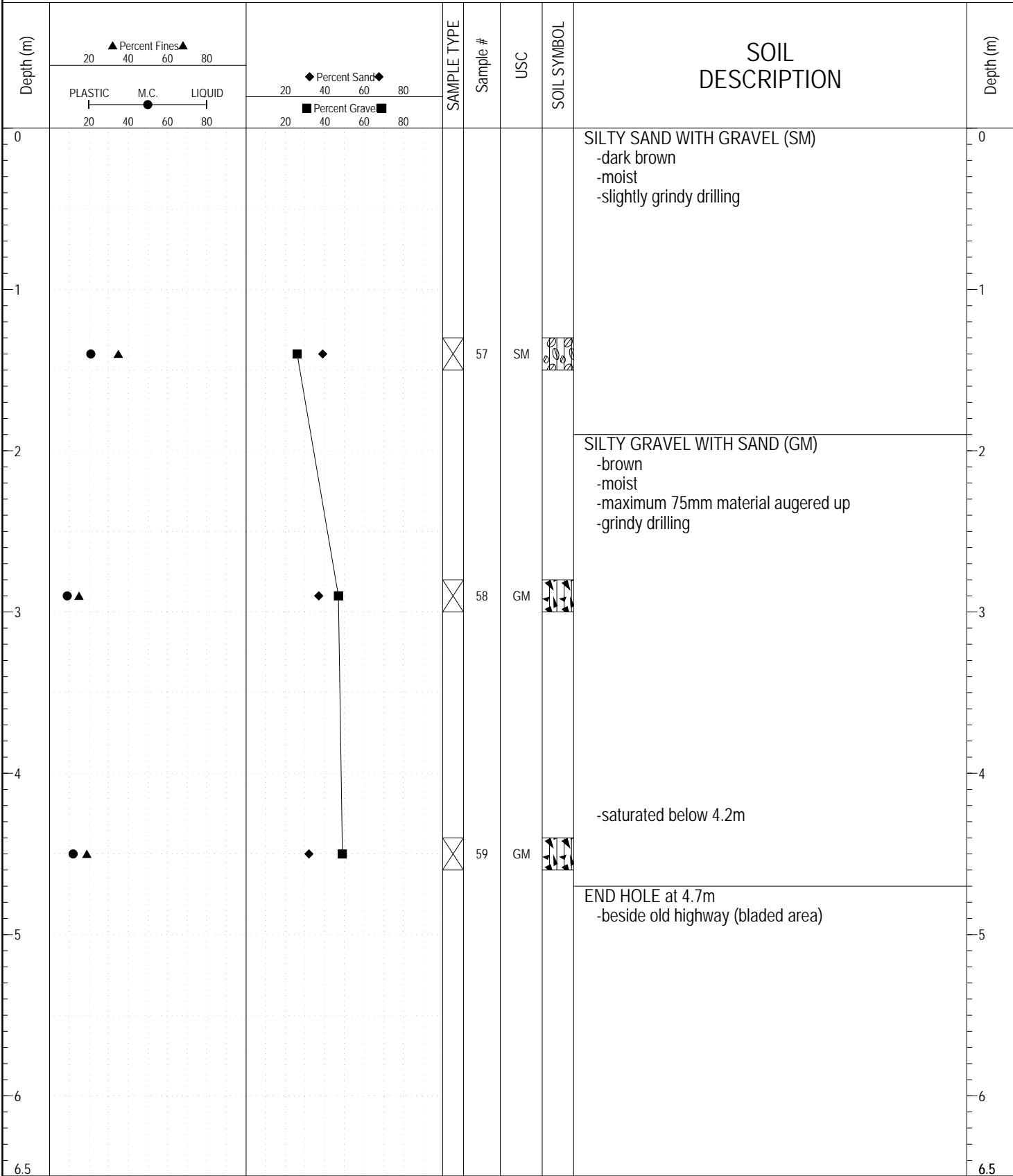
ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



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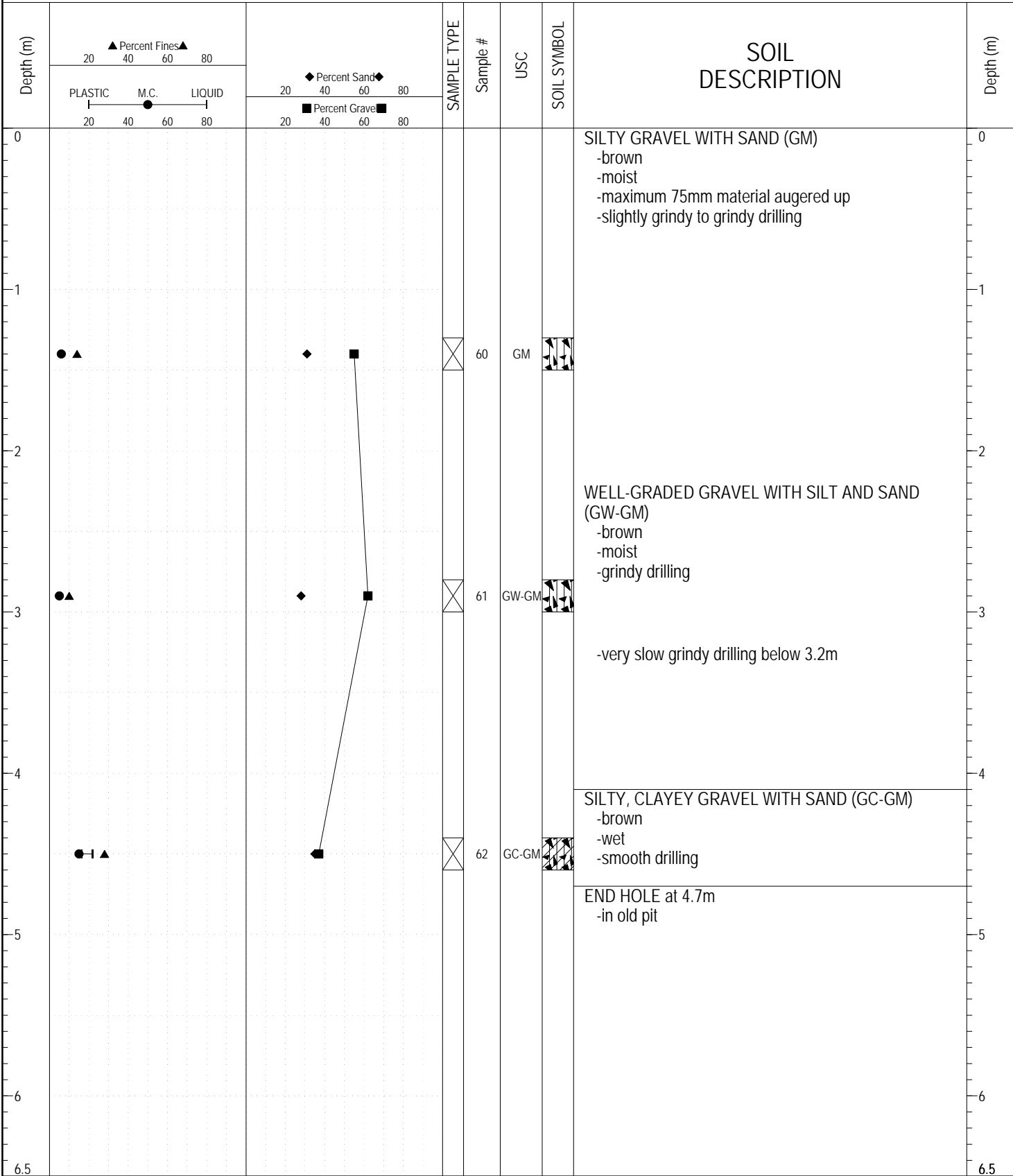
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REVIEWED BY:	COMPLETION DATE: 8/9/91
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SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE



ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY GRANULAR INVESTIGATION	BOREHOLE NO: 138-31
SHAKWAK PROJECT	A/H KM 1903 RHS	PROJECT NO: SEGMENT 17
DRILL: B40L 150mm Dia. SOLID STEM AUGER	LOCATION: See Plan	ELEVATION: 0 m

SAMPLE TYPE     RETURN     S.P.T.     Auger     BULK     TUBE     CORE

Depth (m)	▲ Percent Fines ▲ 20    40    60    80		◆ Percent Sand ◆ 20    40    60    80		SAMPLE TYPE	Sample #	USC	SOIL SYMBOL	SOIL DESCRIPTION	Depth (m)
	PLASTIC    M.C.    LIQUID 20    40    60    80		■ Percent Gravel ■ 20    40    60    80							
0									POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist -maximum 75mm material augered up	0
1										1
1.7	▲		◆	■	<input checked="" type="checkbox"/>	63	GP		-first refusal at 1.7m	
2.1									END HOLE at 2.1m -refusal -beside creek	2
3										3
4										4
5										5
6										6
6.5										6.5

ESE IMPORT LOG GRAVEL 136-140.GPJ YTG.GDT 6/14/17



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LOGGED BY: CB	COMPLETION DEPTH: 2.10 m
REVIEWED BY:	COMPLETION DATE: 8/9/91
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