

Drilled	Start 5/7/2025	End 5/13/2025	Total Depth (ft)	239.25	Logged By Checked By	JSP KRH	Driller	WSDOT	Drilling Method	Mud Rotary Casing Advancer
Surface Elevation (ft)	36.644			Hammer	Autohammer			Drilling	CME 850 (9C2-4)	
Vertical Datum	NAVD88			Data	140 (lbs) / 30 (in) Drop			Equipment		
Easting (X)	1636411.111			System	Project Datum			Groundwater not observed at time of exploration		
Northing (Y)	608659.472			Datum						
Notes:	Autohammer Average Transfer Efficiency = 89.3%; State Plane Coordinates 1308273, 280564.5; Laboratory testing completed by GeoEngineers, WSDOT, and Haley & Aldrich; Vane shear testing performed by WSDOT									

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing				
0									Soil samples not collected in upper 14 feet
5									
10									
15		0	8	1	AL, OC, SG	MH	74		AL (LL=92; PI=33); Organic Content 6.6% No recovery; followed SPT with modified California sampler to recover 9 inches; rock in shoe Vane shear test at Elevation 19.5 feet: Undisturbed Su = 1,769 psf, Remolded Su = 933 psf AL (LL=70; PI=44)
20				2	AL	CH	64		
25				3	AL, %F	CL	46	77	AL (LL=38; PI=15)
30				4	AL, CS, SA, SG, %F		39	92	Vane shear test at Elevation 11 feet: Undisturbed Su = 796 psf, Remolded Su = 417 psf AL (LL=32; PI=11) Range of moisture content 28 to 39% ¹ ; Range of fines content 81 to 92% ¹ AL ² (LL=28; PI=9)
35				5	AL, SA		45	93	AL (LL=35; PI=14) Range of moisture content 40 to 45% ¹ AL ² (LL=44; PI=21) Vane shear test at Elevation 1 foot: Undisturbed Su = 819 psf, Remolded Su = 507 psf

Note: See Figure A-1 for explanation of symbols.

Log of Boring B-3-25



Project: I-405, Brickyard to SR 527 Improvement Project
Project Location: King and Snohomish Counties, Washington
Project Number: 0180-423-01

Figure A-46
Sheet 1 of 6

Elevation (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample Sample Name Testing						
35										
36				6 AL, SA, TX				37	98	AL (LL=30; PI=10) Range of moisture content 34 to 37% ¹
		14	5	%F 7 SA	SP	Gray poorly graded sand (moist)	27	4		
					SM	Gray silty sand (loose, moist)	32	24		
40										
45		18	27	8		Becomes dense				
50										
		13	16	9 %F		Becomes medium dense	32	28		
55		18	19	10 AL	CL-ML	Gray silty lean clay (very stiff, moist)	29		AL (LL=25; PI=5)	
60		12	30	11	SP	Gray poorly graded sand (dense, moist)				
65		12	32	12						
70		16	17	13A AL 13B AL, SA	CL ML	Gray lean clay (very stiff, moist) Gray silt (very stiff, moist)	32 30	94	AL (LL=31; PI=9) AL (LL=24; PI=1) Range of moisture content 26 to 30% ¹	
75		18	13	14 AL	CL	Gray lean clay (stiff, moist)	30		AL (LL=30; PI=10)	

Figure A-46
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Date: 3/24/26 Path: \\GEOENGINEERS\COM\W\PROJECTS\010180423\GINT\018042303.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017.GLB\GEL\GEO TECH_STD_%F_NO_GW_NO DATA SOURCE

Elevation (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample						
80	80	12	41	15		SP-SM	Gray poorly graded sand with silt (dense, moist)			
85	85	14	30	16						
90	90	17	9	17 AL		CL	Gray lean clay with sand (stiff, moist)	33		AL (LL=35; PI=15)
95	95	14	18	18 AL		ML	Gray sandy silt (very stiff, moist)	30		AL (nonplastic)
100	100	9	7	19		CL	Gray lean clay (medium stiff, moist)			
105	105			20 AL, CS, HA, SA				31	100	Vane shear test at Elevation -65.5 feet: Undisturbed Su = 3,280 psf, Remolded Su = 1,411 psf AL (LL=38; PI=14) AL ² (LL=35; PI=12)
110	110	18	5	21						Vane shear test at Elevation -75.5 feet: Undisturbed Su = 1,825 psf, Remolded Su = NA (equipment failed)
115	115			22 AL, TX, %F				36	92	AL (LL=41; PI=19) Range of moisture content 32 to 36% ¹

Log of Boring B-3-25 (continued)



Project: I-405, Brickyard to SR 527 Improvement Project
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Figure A-46
 Sheet 3 of 6

Date: 3/24/26 Path: \\GEOENGINEERS.COM\W\PROJECTS\010180423\GINT\018042303.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_US_JUNE_2017\GLB\GEL\GEO TECH STD_%F_NO_GW_NO DATA SOURCE

Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
-85	120	18	4		23 SG			Becomes soft	36		Vane shear test at Elevation -85.5 feet: Undisturbed Su = 1,723 psf, Remolded Su = 625 psf
-90	125				24 %F				29	91	
-95	130	18	7		25			Becomes medium stiff			Vane shear test at Elevation -95.5 feet: Undisturbed Su = 3,505 psf, Remolded Su = 1,876 psf
-100	135				26 %F				32	99	
-105	140	18	10		27			Becomes stiff			Vane shear test at Elevation -105.5 feet: Undisturbed Su = 4,168 psf, Remolded Su = 1,883 psf
-110	145				28 AL		ML	Gray silt (medium stiff, moist)	27		
-115	150	18	7		29						Vane shear test at Elevation -115.5 feet: Undisturbed Su = 2,562 psf, Remolded Su = 1,652 psf
-120	155				30 AL		CL	Gray lean clay (moist)	28		
	160	18	12		31 AL		ML	Gray silt (stiff, moist)	33		AL (LL=27; PI=5)

Log of Boring B-3-25 (continued)



Project: I-405, Brickyard to SR 527 Improvement Project
 Project Location: King and Snohomish Counties, Washington
 Project Number: 0180-423-01

Figure A-46
 Sheet 4 of 6

Date: 3/24/26 Path: \\GEOENGINEERS.COM\W\PROJECTS\0180423\GINT\018042303.GPJ DBLibrary\Library\GEOENGINEERS_DF_STD_LIS_JUNE_2017\GLB\GEL\GEO TECH STD_%F_NO_GW_NO DATA SOURCE

Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
125											
165					32 AL		CL	Gray lean clay (medium stiff, moist)	30		AL (LL=38; PI=17)
130											
170		18	8		33						Vane shear test at Elevation -135.5 feet: Undisturbed Su = 4,045 psf, Remolded Su = 2,903 psf
135											
175					34 AL, %F				29	97	AL (LL=40; PI=19) Range of moisture content 28 to 29% ¹
140											
180		18	9		35			Becomes stiff			Vane shear test at Elevation -145.5 feet: Undisturbed Su = 3,054 psf, Remolded Su = 2,169 psf
145											
185					36 AL				33		AL (LL=45; PI=22)
150											
190		16	13		37 AL				26		Rock in shoe AL (LL=31; PI=13)
155											
195					38 AL				24		AL (LL=47; PI=25)
160											
200		10	50/4"		39A 39B		SM	Becomes very hard Gray silty sand (very dense, moist)			
165											

Log of Boring B-3-25 (continued)



Project: I-405, Brickyard to SR 527 Improvement Project
 Project Location: King and Snohomish Counties, Washington
 Project Number: 0180-423-01

Figure A-46
 Sheet 5 of 6

Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval	Recovered (in)	Blows/foot	Collected Sample Sample Name Testing						
205	10	50/6"	40	SA	SP	Gray poorly graded sand (very dense, moist)	16	3	Driller noted gravel		
210	0	50/3"	41		GP	Gray poorly graded gravel (very dense, moist)			Driller noted gravel, drill chatter		
215	1	50/4"	42						No recovery; Drill chatter		
220	0	50/3"	43						No recovery Drill chatter		
225	4	50/6"	44		SP	Gray poorly graded sand (very dense, moist)					
230	1	50/3"	45		SM	Gray silty sand with gravel (very dense, moist)			Drill chatter		
235	15	85/9"	46		CL	Gray lean clay (very hard, moist)			Drill chatter		
240	2	50/2"	47			Grades to sandy lean clay					

Boring terminated at 239.2 feet below ground surface

Notes:

1. Where multiple moisture or fines content tests were performed within a single sample, the range of reported results is presented in the Remarks column and the highest reported result is presented in the respective Moisture or Fines Content (%) columns.

2. Sample was collected from the top or bottom of the piston tube prior to extracting the entire piston sample. Laboratory tests performed were used for screening purposes only and results were not used for USCS classification.

Figure A-46
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